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## [Enter the Catalog]

PEGASUS was the winged horse of the muses in Greek Mythology. He carried their hopes, their aspirations, and their poetry into the skies. PEGASUS is as futuristic as tomorrow's space exploration in our solar system and into the universe beyond. The seal also bridges the gap between the humanities and space technology.

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Orlando, FL 32816-0111
(407) 823-3000

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Orlando, FL 32816-0113
(407) 823-2827

Registrar's Office
University of Central Florida
P.O. Box 160114

Orlando, FL 32816-0114
(407) 823-3100

Housing Office
University of Central Florida
PO Box 163222
Orlando, FL 32816-3222
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UCF Home Page: http://www.ucf.edu/

## Volume 34, Number 1

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## Admisions and Catoloogs

## DIRECTIONS TO UCF CAMPUS

- From Orlando International Airport: ( $\mathbf{2 0}$ miles)

Go east on 528 to 417 north. Take 417 north (Toll Road) to University Blvd. Exit east onto University Blvd. to UCF.

- From Orlando Sanford Airport: ( $\mathbf{2 0}$ miles)

Lake Mary Blvd to 417 south (Toll Road). Go to University Blvd. Turn left onto University Blvd. continuing east to UCF.

- From Daytona Beach on I-4:

Exit 49 onto Route 434 east. Go through Longwood, Winter Springs, and Oviedo on 434 to UCF.

- From Tampa on I-4:

Exit 28 onto east 528 (Toll Road). Go past Orlando International Airport to 417 north. Take 417 north (Toll Road) to University Blvd. Exit east onto University Blvd. to UCF.

- From South on Florida Turnpike:

Exit 254 (Orlando South - 441). Take first right onto east 528 (Toll Road). Go east past Orlando International Airport to 417. Take 417 north (Toll Road) to University Blvd. Exit east onto University Blvd. to UCF.

- From North on Florida Turnpike:

Exit 265 onto east 408 (Toll Road). Go east through Orlando to merge with 417. Take 417 north to University Blvd. Exit east onto University Blvd. to UCF.

- From Titusville (East Coast):

Hwy. 50 west past 408 overpass to 434. Turn right to UCF ( 2 miles).

- From Melbourne:

I-95 to 520 to Hwy. 50 west to right on 434 or I-95 to 528 west (toll) to 417 north to University Blvd. Exit east to UCF.

Directions Hotline: (407) 882-0909
Reader comments and suggestions for improving the usefulness of this catalog may be sent to:
Undergraduate Catalog, UCF Registrar's Office, PO Box 160114, Orlando, FL 32816-0114.
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Message From The President
Dear UCF Students and Prospective Students
Welcome to the University of Central Florida. I hope you share my excitement about what the academic year promises. How well it turns out for you will depend primarily on the effort you invest in your own intellectual and professional development. Invest wisely, and be assured that UCF faculty and staff pledge their best efforts in helping you attain your educational goals.

As you pursue your studies, please remember that a college education is not totally academic. It extends beyond the classroom, laboratory, or studio to campus clubs and organizations, concerts, plays, speeches, and athletic events. I hope that you will become involved in UCF campus life and that you will also make some commitment to serving your community. Besides being a force for campus and community improvement, the effort can be educationally rich and personally fulfilling.

Finally, I hope that you will take pride in your university. Like the Pegasus, our symbol, UCF is on the ascent. Our students excel in national competitions and organizations. Members of our faculty are known internationally for their research and teaching. A number of our men's and women's athletic teams are conference champions, and our football team competes in Division 1-A. We have much to be proud of.

You have my best wishes for success and my assurance that UCF faculty and staff are committed to helping you complete your degree so that you can join a proud group of over 100,000 alumni.

Cordially yours,
John C. Hitt
President
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## Admissions and Cotalogs

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| Bob Butterworth | Attorney General |
| Tom Gallagher | State Treasurer |
| Katherine Harris | Secretary of State |
| Robert F. Milligan | Comptroller |
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## Administration

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Executive Assistant to the President
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Inspector General
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Director, Constituent Relations
Director, Diversity Initiatives
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| Director, Florida-Canada Linkage Institute | Warren McHone |
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| Director, Housing and Residence Life | Christopher McCray |
| Associate Director, Intramural Sports | Jim Wilkening |
| Coordinator, Office of Student Conduct | TBA |
| Associate Director, LEAD Scholars Program | Jan Lloyd |
| Director, Student Recreation Center | Mark Hall |
| Associate Director Student Activities | TBA |
| Director, Student Leadership Programs | William Faulkner |


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| :---: | :---: |
| Director, Student Rights and Responsibilities | Patricia A. MacKown |
| Director, Campus Life Facilities and Student Union | Mark Hall |
| Director, Student Health Services | Robert Faust |
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| Director, Daytona Campus Life | Diana L. Weidman |
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| Assistant Director | Beverly Laakso |
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| Assistant Vice President for University Relations and Special <br> Assistant to the President | Hizo J. Reddick |
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| Director, Federal Relations |  |


| Colleges, Schools, and Departments |  |
| :--- | :--- |
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| Associate Dean | Terry Frederick |
| Associate Dean | Jose Fernandez |
| Associate Dean | Lyman Brodie |
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| Chair, Biology | David T. Kuhn |
| Chair, Chemistry | Glenn N. Cunningham |


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| Interim Chair, History | Edward Kallina |
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| Chair, Psychology | John M. McGuire |
| Chair, Sociology and Anthropology | Harold J. Corzine |
| Chair, Statistics | Ibrahim A. Ahmad |
| Chair, Theatre | Donald W. Seay |
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| Associate Dean, Graduate and External Programs | Robert C. Ford |
| Associate Dean, Undergraduate Programs | Taylor Ellis |
| Center for Executive Development | Sylvia Caceres |
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| Interim Chair, Finance | Stanley Atkinson |
| Chair, Management | Paul Sweeney |
| Chair, Management Information Systems | Paul Chaney |
| Chair, Marketing | Ronald E. Michaels |
| Director, Student Support | Helen Y. Hill |
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| Associate Dean for Research \& Graduate Studies | Michael C. Hynes |
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| Chair, Human Services and Wellness | Wilfred D. Wienke |
| Chair, Instructional Programs and Educational Leadership | Jeffrey W. Cornett |
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| Director of Clinical Experiences | Donna Walker-Knight |
| Director, Student Services | Tina M. Smilie |

Director, Minority Programs in Education

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| Associate Dean and Director School of Electrical Engineering and Computer Science | Erol Gelenbe |
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| Director, Computer Science Program | Ronald D. Dutton |
| Director, Electrical Engineering Program | Zhihua Qu |
| Director, Information Technology Program | Gerald Marin |
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| Assistant Dean for Graduate Affairs | Issa Batarseh |
| Assistant Dean for Distributed Learning and Chair of Engineering Technology | Ronald Eaglin |
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| Chair, Industrial Engineering and Management Systems | Charles H. Reilly |
| Chair, Mechanical, Materials and Aerospace Engineering | David W. Nicholson |
| Chair, Aerospace Studies (AFROTC) | Lt Col Carol Lynn Judge |
| Chair, Military Science (Army ROTC) | LTC John J. Ruzich |
| College of Health and Public Affairs |  |
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| Associate Dean, Graduate Studies | Eileen M. Abel |
| Interim Associate Dean | Robert N. Gennaro |
| Assistant Dean, Student Affairs | Melvin Rogers |
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| Chair, Criminal Justice and Legal Studies | Bernard J. McCarthy |
| Chair, Health Professions | Aaron Liberman |
| Chair, Molecular Biology and Microbiology | Robert N. Gennaro |
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| Chair, Public Administration | K. Tom Liou |
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| Director of Student Support | Judith A. Sindlinger |
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| Interim Dean | Abrahim Pizam |

Fritzlaine Powell

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Debra R. Reinhart
Erol Gelenbe
Christian S. Bauer
Ronald D. Dutton
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Ronald Eaglin
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R. Jane Lieberman

Bernard J. McCarthy
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K. Tom Liou

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Judith A. Sindlinger

## Rosen School of Hospitality Management

Interim Dean

| Interim Associate Dean | Stephen Lebruto |
| :--- | :--- |

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UCF

## Admisions noc Catalogs

## Campus Services Directory

| CAMPUS OFFICE/SERVICE | LOCATION | $\begin{aligned} & \text { EXTENSION } \\ & \text { or 407-82- } \end{aligned}$ |
| :---: | :---: | :---: |
| A.A. Degree Application | Academic Services, MH 210 | 3-2691 |
| Academic Advising - First Year Students |  |  |
| Advising for Freshman Declared Majors | First Year Advising and Information Services, PH 116 | 3-3789 |
| Advising for Multicultural Students | Multicultural Academic and Support Services, MH 145 | 3-2716 |
| Advising for Student-Athletes | Academic Services for Student Athletes, WDSC 123B | 3-5895 |
| Advising for Undecided Students (AEP) | Academic Exploration Program, PH 104 | 3-5322 |
| Advising for CAP or PEGASUS Students | Student Academic Resource Center, PH 113 | 3-5130 |
| Academic Exploration Program | PH 104 | 3-5322 |
| Academic Services for Student-Athletes | WDSC 123B | 3-5895 |
| Academic Support \& Advising Programs | PH 106 | 3-6630 |
| Address Change | College Advising Office, Kiosks, Registrar, MH 161 | 3-3100 |
| Admissions: Undergraduate | Undergraduate Admissions, MH 161 | 3-3000 |
| Graduate | Graduate Studies, MH 230 | 3-2766 |
| Alumni Association | MH 340 | 3-2586 |
| AMBULANCE |  | 9-1-1 |
| Annual Fund | Research Pavilion, PVL 140 | 407-249-4740 |
| Arena Box Office | Arena, Second Level | 3-6006 |
| Arena Information | Arena, Second Level | 3-3070 |
| Athletes, Academic Services for Student- | WDS Center 123B | 3-5895 |
| Athletics | WDS Center 134A | 3-2261 |
| Banking - see Credit Union |  |  |


| Books, Supplies, \& Sundry Items | Bookstore, John T. Washington <br> Center | $3-2665$ |
| :--- | :--- | :--- |
| Campus Life | MH 282 | $3-2626$ |
| Campus Ministries, United | SRC 172 | $3-5336$ |
| Career Resource Center | Student Resource Center, SRC, 185 | $3-2361$ |
| Cashiers | Administration, MH 108 | $3-5924$ |
| Catalogs | Bookstore | $3-2665$ |
| Certification for Enrollment | College Advising Office | $3-3100$ |
| Change of Major | Bookstore | $3-2665$ |
| Check Cashing | SARC, PH 113 | $3-5130$ |
| CLAST Information | Student Resource Center, SRC 203 | $3-2811$ |
| Counseling \& Testing Center, SRC 203 |  | 33109 |
| CLEP Counseling \& Testing | 1519 Clearlake Road, Cocoa, FL | $321-632-5567$ or |
| Cocoa (Brevard) Campus | 32922 |  |


| Creative School for Children |  | 3-2726 |
| :---: | :---: | :---: |
| Credit by Examination |  | Department Chair |
| Daytona Beach Campus | 1200 W. International Speedway Blvd., Daytona Beach | 386-255-7423 |
| Decals (Parking) | Parking Services, Libra Drive | 3-5812 |
| Dick Pope Sr. Institute for Tourism Studies | Classroom Building I, Room 302T | 3-5641 |
| Directions Hotline |  | 407-882-0909 |
| Disability Services | Student Disability Services, SRC 132 | 3-2371 |
| Dispute Resolution Services | SRC 153 | 3-3477 |
| Distance Learning | Center for Distributed Learning, Research Pavilion 256 | 407-207-4910 |
| Downtown Center | 36 W. Pine Street, Orlando | 407-317-7700 |
| EMERGENCY | Fire, Police, Ambulance | 9-1-1 |
| Equal Opportunity/Affirmative Action | EO/AA Office | 3-2348 |
| Financial Aid | Student Financial Assistance, MH 120 | 3-2827 |
| FIRE |  | 9-1-1 |
| First Year Advising \& Information | PH 116 | 3-3789 |
| Fraternities | Greek Affairs, SU 208 | 3-2824 |
| Gordon Rule | Academic Services, MH 210 | 3-2691 |
| Grade Forgiveness | Registrar, MH 161 | 3-3100 |
| Graduate Studies | Graduate Studies, MH 230 | 3-2766 |
| Graduation | Registrar, MH 161 | 3-2842 |
| Greek Affairs | SU 208 | 3-2824 |
| Health Insurance, Student | Student Health Center, SHC | 3-1087 |
| Honors College, The | PH 202 | 3-2076 |
| Housing (On Campus) | Housing \& Residence Life, HAB 101 | 3-4663 |
| Institutional Research | MH 384 | 3-5061 |
| Instructional Resources, Office of (OIR) | Classroom Building 1, Room 203 | 3-2571 |
| International Students | International Student \& Scholar Svcs, Barbara Ying Center | 3-2337 |
| International Studies | Research Pavilion, Suite 263 | 407-882-2300 |
| Intramural Sports | Recreation Center | 3-2408 |


| Knightro's Copy Kingdom | Student Union | 3-5464 |
| :---: | :---: | :---: |
| LEAD Scholars Program | MH 351 | 3-2223 |
| Legal/Services, Student | SRC 155 | 3-2538 |
| Library: |  |  |
| Circulation | Library 241 | 3-2580 |
| Interlibrary Loan | Library 222 | 3-2383 |
| Library Loan | 3-2756 |  |
| Ask a Librarian | Library 203 | 3-2562 |
| Reference | Library 203 | 3-5880 |
| Periodicals/AV | Library 303 | 3-3017 |
| Lost and Found | Student Government Kiosk | 3-3733 |
| Medical Withdrawal | MH 210 | 3-2691 |
| Multicultural Academic \& Support Services | MH 145 | 3-2716 |
| Multilingual/Multicultural Studies | TR 547 | 3-5515 |
| Name Change on Records | Registrar, MH 161 | 3-3100 |
| Non-Traditional and Evening/Weekend Student Services | MH 210 | 3-2691 |
| Off-Campus Student Resource Center | SRC 140 | 3-6505 |
| Ombuds Office | MH 338F | 3-6440 |
| Orientation Center | SRC 227 | 3-5105 |
| Orlando-UCF Shakespeare Festival | 812 E. Rollins St. \#100, Orlando | 407-893-4600 |
| Parking Services/Decals | Parking Services, South Parking Garage | 3-5812 |
| Planned Giving | Research Pavilion, PVL 140 | 407-249-4740 |
| Police Department | Libra Drive |  |
| EMERGENCY |  | 9-1-1 |
| Non-Emergency |  | 3-5555 |
| Crime Prevention |  | 3-2165 |
| Victim Services |  | 3-6069 |
| Readmission Application | Registrar, MH 161 | 3-3100 |
| Registration Helpline | Registrar, MH 161 | 3-3533 |
| Safety Hazards/Concerns | Environmental Health \& Safety, PP 102 | 3-5323 |
| Scholarships | $\begin{aligned} & \text { Student Financial Assistance, MH } \\ & 120 \end{aligned}$ | 3-2827 |


| Senior Citizen Audit Forms | Registrar, MH 161 | 3-3100 |
| :---: | :---: | :---: |
| Sororities | Greek Affairs, SU 208 | 3-2824 |
| South Orlando Center | 7300 Lake Ellenor Drive, Orlando | 407-856-6585 |
| Speech \& Hearing Clinic | 12424 Research Parkway | 407-249-4770 |
| Student Academic Resource Center (SARC) | PH 113 | 3-5130 |
| Student Accounts | MH 107 | 3-2433 |
| Student Activities/Organizations | SU 208 | 3-6471 |
| Student Employment | SRC, Room 185 | 3-2361 |
| Student Financial Assistance | MH 120 | 3-2827 |
| Student Government Association | SU 214 | 3-2191 |
| Student Health Services | Student Health Center | 3-2701 |
| Student Leadership Programs | SU 208 | 882-0152 |
| Student Outreach Programs | TR 547, Room 101 | 3-5580 |
| Student Rights and Responsibilities | SRC 155 | 3-6960 |
| Student Union | Student Union | 3-0001 |
| Student Union Room Reservations | SU 312 | 3-3677 |
| Study Abroad | Office of International Studies, Research Pavilion, Suite 263 | 407-882-2300 |
| Summer Credit Waiver | Academic Services, MH 210 | 3-2691 |
| Tests, Standardized | Counseling \& Testing, SRC 203 | 3-5109 |
| Tickets, Athletic | Wayne Densch Sports Center 116 | 3-GOLD |
| Tickets, Movies, and Attractions | Student Government Ticket Center, SU Mall | 3-2060 |
| Transcripts: |  |  |
| Academic (official) | Registrar, MH 161 | 3-3100 |
| Academic (unofficial) | Kiosk at MH 161 |  |
| Financial Aid | Student Financial Assistance, MH 120 | 3-2827 |
| Transfer Hours Sent to UCF | Undergraduate Admissions, MH 161 | 3-3000 |
| Transfer Services | SARC PH 102 | 3-2231 |
| Transient Student Forms/Applications |  |  |
| Outgoing | Registrar, MH 161 | 3-3100 |
| Incoming | Undergraduate Admissions, MH 161 | 3-3000 |
| Tutoring/Academic Support | SARC, PC113 | 3-5130 |
| UCF Card | John T. Washington Center, Rm 104 | 3-2100 |


| UCF Foundation, Inc. | Research Pavilion, PVL 140 | $407-249-4740$ |
| :--- | :--- | :--- |
| UCF Home Page | http://www.ucf.edu/ |  |
| UCF Virtual Campus | Center for Distributed Learning, <br> Research Pavilion 256 | $407-207-4910$ |
| Undergraduate Admissions | MH 161 | $3-3000$ |
| University Honors Program | PH 203 | $3-3449$ |
| University Relations | MH 338 | $3-2502$ |
| Veterans' Benefits | Veterans' Affairs, MH 149 | $3-2707$ |
| Wellness, Health Education | HRC TR 617 | $3-5841$ |
| Withdrawal from Courses or University | Registrar, MH 161 or POLARIS <br> (https://polaris.ucf.edu/) | $3-3100$ |

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## University Notices

## Administrative Procedures Act Policy Statement

The University of Central Florida, under applicable rules of the Administrative Procedures Act, may change any of the announcements, information, policies, rules, regulations, or procedures set forth in this Undergraduate Catalog. The Undergraduate Catalog is published once a year and cannot always reflect new and modified regulations. Statements in this Undergraduate Catalog may not be regarded in the nature of binding obligations on the institution or the State of Florida. While every effort will be made to accommodate the curricular needs of students, limited resources may prevent the University from offering all required courses in each semester or in day and evening sections.

Students will be held accountable for the requirements, policies, and procedures described in this Undergraduate Catalog. Additional information or clarification of any policy or procedure may be obtained from the specified office.

## Sexual Harassment Policy

The University of Central Florida values diversity in the campus community. Accordingly, discrimination on the basis of race, sex, national origin, religion, age, disability, marital status, parental status, or veteran's status is prohibited.

Sexual harassment, a form of sex discrimination, is defined as unwelcome sexual advances, requests for sexual favors, or verbal or physical conduct of a sexual nature when:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or enrollment;
2. Submission to or rejection of such conduct by an individual is used as the basis for employment or enrollment decisions affecting such individual; or
3. Such conduct has the purpose or effect of substantially interfering with an individual's work performance or enrollment, or creating an intimidating, hostile, or offensive working or academic environment.

Sexual harassment is strictly prohibited. Occurrences will be dealt with in accordance with the guidelines above and University rules. Employees, students, or applicants for employment or admission may obtain further information on this policy, including grievance procedures, from the Equity Coordinator. The Director of the Office of Equal Opportunity and Affirmative Action Programs is the campus Equity Coordinator responsible for concerns in all areas of discrimination. The office is located on the main campus, in Millican Hall 330, Orlando, FL 32816-0030. The phone number is 407-UCF-1EEO. Policies and guidelines are available on-line at
http://pegasus.cc.ucf.edu/~eeo/

## Drug-Free Workplace/Drug-Free Schools Policy Statement

The University of Central Florida, in accordance with legislation passed by the federal government as part of the war on drugs program, has adopted the policy statement DRUG-FREE WORKPLACE/DRUG-FREE SCHOOLS. Information regarding this policy may be obtained in the Office of Human Resources or the Division of Student Development and Enrollment Services (MH 282).

## Academic Behavior Standards

The University of Central Florida is committed to a policy of honesty in academic affairs. Examples of conduct for which students may be subject to academic and/or disciplinary penalties including expulsion are:

- Cheating, whereby non-permissible written, visual, or oral assistance including that obtained from another student is utilized on examinations, course assignments, or projects. The unauthorized possession or use of examination or course related material may also constitute cheating.
- Plagiarism, whereby another's work is deliberately used or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own. Any student failing to properly credit ideas or materials taken from another has plagiarized.
Note: A student who has assisted another in any of the aforementioned breach of standards shall be considered equally culpable. In cases of cheating or plagiarism, the instructor may take appropriate academic action ranging from loss of credit for a specific assignment, examination, or project to removal from the course with a grade of "F." Additionally, the instructor may request disciplinary action through the Office of Student Rights and Responsibilities as outlined in The Golden Rule.
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## University of Central Florida

The University of Central Florida, a member institution of the State University System, formerly was named Florida Technological University. The name was changed by action of the Florida Legislature on December 6, 1978.

## Mission Statement

UCF offers undergraduate education rooted in the arts and sciences, providing a broad liberal education while developing competence in fields of special interest. Unique aspects of UCF's approach are its commitment to educate students for a world in which cooperation is as important as competition; in which societal and environmental impacts of new developments are as important as their technical merits; and in which technology, the arts, sciences, humanities, and commerce work together to shape the future.

The complexity of modern society requires comprehensive graduate and professional programs. UCF provides advanced education that matches institutional strengths with evolving regional, state, national, and international needs. It supports these advanced programs by recruiting excellent students, faculty, and staff and by supplying the infrastructure that enables these programs to achieve national prominence.

Basic and applied research, as well as creative activity, are integral parts of a quality education. UCF faculty members are scholar-teachers. As such, they create new knowledge, new points of view, and new means of expression in a broad range of academic, professional, and socially significant areas. Their creativity fosters innovation as they convey their results, methods, values, and expressions to students, colleagues, and the public.

UCF works actively to build partnerships that promote development of Central Florida's economy through carefully targeted programs of graduate study and research. The I-4 High-Technology Corridor Council, whose goal is to attract, retain and expand high technology investment and jobs, is but the latest example of UCF's collaboration with partners from industry, state and local government, and higher education.

Service to its community is an important extension of the metropolitan mission of the University. Public service is prominent at UCF, with the University developing partnerships with the community to enrich the educational, artistic, cultural, economic, and professional lives of those it serves in Central Florida and beyond.

Education is more than classroom experience. UCF students are involved in cooperative research and participate in artistic, social, cultural, political, and athletic activities. UCF provides academic
diversity by bringing to its campus national and international leaders who expose students and the community to a wide range of views and issues. UCF achieves cultural diversity by using its multi-campus facilities to serve a diverse population of traditional and non-traditional students from various races, cultures, and nationalities.

UCF is committed to the free expression of ideas, the equality of all people, and the dignity of the individual.

## Accreditation

The University of Central Florida is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award degrees at the associate, baccalaureate, master's, and doctoral levels. At the undergraduate level, the following programs (disciplines) have been granted accreditation:

| College/Discipline | Accrediting Body |
| :--- | :--- |
| Arts and Sciences | American Chemical Society (ACS) |
| Chemistry | National Association of Schools of Music (NASM) |
| Music | American Assembly of Collegiate Schools of <br> Business (AACSB) |
| Business Administration (all disciplines) | State Accreditation-Florida Department of <br> Education; National Council for Accreditation of <br> Teacher Education (NCATE) |
| Education (all disciplines) | Engineering Accreditation Commission (EAC) of the <br> Accreditation Board for Engineering \& Technology <br> (ABET) <br> 111 Market Place, \#1050 <br> Baltimore, MD 21202-4012 <br> Telephone: 410-347-7700 <br> Fax: 410-625-2238 |
| Engineering and Computer Science (all |  |
| disciplines) | Computer Science Accreditation Commission <br> (CSAC) |
| Computer Science | Technology Accreditation Commission (TAC) of the <br> Accreditation Board for Engineering \& Technology <br> (ABET) <br> $111 ~ M a r k e t ~ P l a c e, ~ \# 1050 ~$ |
| Baltimore, MD 21202-4012 |  |
| Telephone: 410-347-7700 |  |
| Fax: 410-625-2238 |  |$|+$| Engineering Technology |
| :--- |


| Cardiopulmonary Science | Committee on Accreditation for Respiratory Care in <br> conjunction with the Commission on Accreditation <br> of Allied Health Education Programs (CAAHEP) of <br> AMA |
| :--- | :--- |
| Health Information Management | American Health Information Management <br> Association (AHIMA) in conjunction with Council <br> on Accreditation of Allied Health Education <br> Programs (CAAHEP) |
| Medical Laboratory Sciences | National Accrediting Agency for Clinical Laboratory <br> Sciences (NAACLS) |
| Nursing | National League for Nursing Accreditation <br> Commission (NLNAC), Florida Board of Nursing |
| Radiologic Sciences | Joint Review Committee on Education in Radiologic <br> Technology (JRCERT) |
| Social Work | Council on Social Work Education (CSWE) |
| Hospitality Management | Accreditation Commission for Programs in <br> Hospitality Management (ACPHM) |
| Hospitality Management |  |

UCF is listed in Transfer Credit Practices on Designated Educational Institutions with the highest level of credit acceptability. This handbook is published by the American Association of Collegiate Registrars and Admission Officers, and lists the acceptability of transfer credits based upon the reporting institutions in the states, commonwealths, territories, and selected international institutions.

## The UCF Campuses

## The Orlando Campus

The 1,415 -acre campus is located in the Orlando suburbs, thirteen miles northeast of downtown. Seventy-nine permanent buildings - valued at more than $\$ 300$ million - radiate outward from an academic core, where UCF's colleges, classrooms and library are located. More than $\$ 40.5$ million for construction of academic facilities is anticipated in the three-year period ending with 2002-2003. Projects expected to be completed or in progress during the period include a second College of Health and Public Affairs building, another engineering building, a second College of Business Administration building, and a Teaching Center. UCF recreational facilities include lighted tennis and racquetball courts, an outdoor swimming pool, golf driving range, volleyball, and basketball courts and ball fields.

## UCF Virtual Campus

The UCF Virtual Campus provides opportunities for students to enroll in credit courses and select degree programs through a variety of interactive distributed technologies. Courses are delivered through the world wide web, two-way interactive television, videotape, and radio broadcasting. Virtual Campus courses use the world wide web, e-mail, computer conferencing, chat, multimedia, videotape, interactive two-way television, and WUCF-FM radio.

Students participate virtually in web-based courses via computer. Some courses use the web solely for instruction with no required face-to-face class meetings. Other courses use the web to enhance classroom activities and, therefore, reduce face-to-face time in the classroom. Interactive two-way television increases the availability of courses at UCF area campuses and attendance centers. Videotape courses that provide undergraduate and graduate degrees in engineering to students throughout the state are enhanced with the Internet.

Distributed learning courses are accessible each semester in the on-line UCF Class Schedule in the "Select Special Course Groups" menu. Students who plan to enroll in a course with a web component or in a videotape course must have access to the Internet, a web browser such as Netscape, basic web browsing knowledge, ability to use e-mail, and basic computer skills such as word processing. Refer to http://distrib.ucf.edu/ for additional information.

## Center for Distributed Learning

Assistant Vice President and Director: Steven E. Sorg; http://distrib.ucf.edu/cdl/; 407-207-4910
The Center for Distributed Learning serves as the Virtual Campus for the University. The Center's mission is to provide support to students, faculty, and staff as new and existing technologies become increasingly available for distributed learning courses and programs. The Center is responsible for planning and administering interactive television, video, and web-based programs. It serves as a clearinghouse for processes and resources providing support and marketing for off-campus and distributed learning credit programs. The Center also coordinates the university's standards and accreditation changes resulting from web-based instruction. The Center has an advisory committee composed of the distributed learning coordinators from each college, faculty, and representatives from other units on campus that support distributed learning.

## UCF Area Campuses

In addition to the academic programs offered on the Orlando campus, the University of Central Florida offers a number of upper division programs and graduate programs at area campuses in Cocoa and Daytona Beach. Times and dates for all courses are listed on-line prior to registration each term at http://ClassSchedule.ucf.edu/.

A Downtown Academic Center serves selected educational needs of downtown Orlando residents and businesses.

UCF Cocoa (Brevard) Area Campus<br>1519 Clearlake Road<br>Cocoa, FL 32922

Associate Vice President and<br>Campus Executive Officer<br>Jack B. Rollins

Campus Executive Officer/CEO James A. Drake
(321) 632-1111, Ext. 65567

## Associate Campus Director Mem Stahley

(321) 632-1111, Ext. 65567

| Coordinator: | Deborah Bradford |
| :---: | :---: |
| Admissions/Registration and | (321) 632-1111, Ext 65610 |
| Records/Financial Aid Services |  |
| Director: Campus Life | Jim Smith (Interim) <br> (321) 632-1111, Ext. 65555 |
| Associate Professor and Interim | Daniel E. Hall |
| Director for Academic Planning | (321) 632-1111, Ext. 65624 |
| Associate Director for | Carolyn Burns |
| Marketing and University | (321) 632-1111, Ext. 65596 |
| Relations |  |
| Computer Laboratory | Sue Sorensen <br> (321) 632-1111, Ext 63311 |
| Academic Support | Bob Caldwell <br> (321) 632-1111, Ext. 65564 |
| Library Services | Allison King <br> (321) 632-1111, Ext. 65607 |

UCF Palm Bay Center<br>250 Community College Parkway<br>Palm Bay, FL 32909<br>321-632-1111, Ext. 23003

The Cocoa Campus of the University of Central Florida operates in partnership with the Brevard Community College District System. Although the Cocoa Campus is housed primarily at the BCC Cocoa Campus, the University also operates the UCF Palm Bay Center on the campus of BCC-Palm Bay. In the 2001-2002 academic year, UCF and BCC will dedicate a new joint-use building which will become the permanent home of the UCF Palm Bay Center. The UCF Cocoa Campus forms part of the Circle of Science and Technology, a complex of buildings encompassing the world-class BCC Planetarium, the state of the art BCC/ UCF Joint-Use Library, and the laboratories and facilities of the Florida Solar Energy Center (FSEC), a UCF research division.

At the UCF Palm Bay Center, the University plans to offer, with the appropriate state-agency approval, an increasing array of programs that meet the career plans of community-college graduates and the economic development needs of southern Brevard County, one of the fastest growing metropolitan areas in the Southeast.

In Brevard County, the University offers upper division (junior, senior) and graduate courses in twenty-four bachelor's and master's degree programs. Interactive television (ITV) and web-based courses also are offered in Brevard County as a complement to the University's classroom-based courses.

UCF and BCC are co-located in the Student Center to provide a one-stop center for under-graduate admissions, registration, records updates, and cashiering. Students have access to a joint- use computer lab, and the BCC Computer Aided Instruction Lab offers students of both schools remedial classes, writing skills assistance, and tutoring.

Every UCF college, including the UCF Honors College, has advisors and administrative offices at the Cocoa Campus. Telephone numbers, as well as programs offered by each of the colleges, are shown below:

## Undergraduate Degree Programs

College of Arts and Sciences 321-632-1111, Ext. 65545
Psychology
Liberal Studies
Social Sciences
College of Business 321-632-1111, Ext. 65592
General Business Administration
College of Education 321-632-1111, Ext. 65575
Early Childhood Education
Elementary Education
Exceptional Education
Social Science Education
Vocational/Technical Education
College of Engineering \& Computer Science 321-632-1111, Ext. 65556
Electrical Engineering Technology/Information Systems
Electrical Engineering/Electrical Systems
Engineering Technology/Operations
College of Health and Public Affairs 321-632-1111, Ext. 65586
Communicative Disorders
Criminal Justice
Legal Studies
Nursing, RN to BSN
Nursing, Generic BSN
Public Administration

## Graduate Programs

Business Administration (MBA)
Educational Leadership (MEd)
Elementary Education (MEd and MA)
Varying Exceptionalities (MEd and MA)
Industrial Engineering and Management (MS)
Public Administration (MPA)
Vocational Education (MEd and MA)
Engineering FEEDS/ITV Graduate Engineering (Courses on videotape)

## Graduate Certificates or Concentrations

Domestic Violence
Health Services Administration
Initial Teacher Preparation
Pre-K Handicap Endorsement

| Professional Writing |  |
| :--- | :--- |
| Women's Studies |  |
| Minors/Areas of Specialization |  |
| Communications |  |
| Exceptional Child Education |  |
| Health Services Administration |  |
| Marketing |  |
| Multicultural Studies |  |
| Sociology |  |
| Space Studies |  |
| Women's Studies |  |
| UCF Daytona Beach Area Campus |  |
| 1200 W. International Speedway Blvd. |  |
| P.O. Box 2811 |  |
| Daytona Beach, Florida 32120-2811 |  |
| 386-255-7423 |  |
| Associate Vice President and | Jack B. Rollins |
| Campus Executive Officer | $386-255-7423$, Ext. 4010 |
| Associate Campus Director | William J. Wetherell |
|  | $386-255-7423$, Ext. 4025 |
| General and Transfer Lib. | TBA |
| Studies \& Gen'l Bus. Adm. | (904) 255-7423, Ext. 4054 |
| Assistant Director | TBA |
| Administrative Services | $386-255-7423$, Ext. 4073 |
| Assistant Director | Darryl Hills |
| Admissions/Registration | $386-255-7423$, Ext. 4054 |
| Director, Campus Life | Diana Weidman |
|  | $386-255-7423$, Ext. 4026 |
| Academic Advising and | TBA |
| Recruitment | $386-255-7423$, Ext. 4038 |
| Marketing and University | Joyce DeLoach |
| Relations | $386-255-7423$, Ext. 4002 |
| Computer Support Services | Tony Recascino |
|  | $386-255-7423$, Ext. 4043 |

The UCF Daytona Beach campus offers upper division and graduate level courses to residents of Volusia and Flagler counties. A unique educational partnership between UCF and Daytona Beach Community College allows students to earn an associate of arts degree at DBCC and a baccalaureate degree at UCF. UCF courses are taught by twenty one resident faculty, visiting Orlando faculty, and local adjuncts. Web-based courses also are offered.

A silicone-domed higher education building housing classrooms, labs, and office space enabled UCF to expand programs and acquire branch campus status in the Board of Regents system. A second
building, completed in 1991, houses more classrooms and faculty offices as well as a 130 -seat auditorium and conference center.

A broad range of services is offered for Daytona Beach students including admissions, registration, financial aid, student clubs and organizations, disability services, veterans affairs, career resources, and others. Registration periods at Daytona Beach correspond to Orlando schedules. Admissions, registration and student services offices are located in Building 34. Business hours are 8:00 a.m. to 6:00 p.m. Monday through Thursday and 8:00 a.m. to 4:00 p.m. on Friday. Hours are extended during scheduled registration periods.

The following degree programs currently are offered at the Daytona Beach campus:

## Undergraduate Degree Programs

College of Arts and Sciences 386-254-4412
Liberal Studies
Political Science
Psychology
Social Sciences
Theatre (Musical)
College of Business Administration 386-254-4412
General Business Administration
Marketing
Management
College of Education 386-254-4428
Early Childhood Education
Elementary Education
Exceptional Education
College of Engineering \& Computer Science 386-255-7423
Engineering (Partial/Video)
College of Health \& Public Affairs 386-254-4412
Criminal Justice
Health Services
Legal Studies
Nursing 386-254-4428
Graduate Degree Programs 386-255-7423
Business Administration (MBA)
Certificate in Public Administration (GCPA)
Criminal Justice
Domestic Violence (Certificate)
Educational Leadership
Elementary Education
Engineering (Video)
Exceptional Education

Health Services Administration
Liberal Studies
Psychology (M.A. Clinical)
Public Administration
Social Work (MSW)
Doctor of Education, C\&I
Minors
Anthropology (Multicultural Studies)
Business Administration
Criminal Justice
Environmental Studies
Gerontology
Health Services Administration
History
Legal Studies
Philosophy
Psychology
Public Administration
Religion
Sociology

## UCF Downtown

36 West Pine St., Orlando, FL 32801;
407-317-7700; http://www.downtown.ucf.edu/
Assistant Vice President: Cecelia H. Rivers
UCF Downtown is located in the heart of downtown Orlando. Situated near Orlando's Church Street Station, access to the center is easy. With six classrooms, including a 130 -seat lecture hall, a multitude of credit and non-credit courses and programs are made available to UCF students as well as to the Orlando business and residential community. The Institute of Government, housed at the center, further expands opportunities for professional development through on-going workshops and seminars. In addition, a distributed-learning center features an interactive television system that connects students to courses on the main campus and to satellite conference sites. A state-of-the-art computer lab provides the latest technology to aid student learning and enhance computer literacy. Selected courses are available by video to meet the needs of students unable to attend classes offered at set times. Admissions, financial assistance and other University information is available readily.

UCF Downtown also serves as a centralized place for meetings, mini-conferences and retreats. The AT\&T executive conference room and flexible classroom space create an atmosphere conducive to hosting a variety of educational activities and cultural events to promote the mission of the University.

Selected courses in the following majors currently are offered at UCF Downtown*:

## College of Arts and Sciences (Undergraduate)

Liberal Studies

## College of Engineering and Computer Science

Note: Most majors at the bachelor's and master's levels are available. All engineering courses are offered via video (FEEDS) or interactive television (ITV).

College of Health and Public Affairs
Undergraduate
Criminal Justice
Legal Studies**
Public Administration

## Graduate

Health Service Administration
Public Administration
Social Work
*Minors are available in selected areas per catalog requirements.
** The Legal Studies program is offered full-time at the upper- division level.
UCF's Lake Sumter Community College Site
9501 U.S. Highway 441
Leesburg, FL 34788
Office hours:
9:00 a.m. - 6:00 p.m. Monday - Thursday
8:00 a.m. - 5:00 p.m. Friday

| Chief Administrative Officer, | Jack B. Rollins |
| :--- | :--- |
| Area Campuses | $386-255-7423$, Ext. 4010 |
| Area Campus Coordinator | David Mealor |
|  | Multi Purpose Bldg., Rm. 162 |

352-365-3569
Associate Area Campus Charles McQuillen
Coordinator
386-255-7423, Ext. 4052
TBA
Multi Purpose Bldg., Rm 162
352-365-3570

## Advising

Ivey Johnson
College of Education
Elementary Education
Program Coordinator
LC117; 352-365-3569
Debbie Phillis
College of Health \& Public Affairs
COHPA Area Campus
Coordinator
321-632-1111
UCF currently operates out of Lake Sumter Community College until construction is complete on the new 60,000 square foot joint use facility in Clermont. Programs and classes are offered in a variety of majors. Computer lab support facilities are available to students to enhance their learning process. Admissions, financial aid, registration, advising, and other support services are readily available through the office staff.

Currently, full programs are available at the undergraduate level in Elementary Education and Nursing (RN-BSN). Graduate programs consist of Educational Leadership and Ed.D. in Educational Leadership. Graduate classes are offered in School Counseling and Exceptional Education to meet teacher certification needs.

UCF's Seminole Community College Site
100 Weldon Boulevard
Sanford, FL 32773
Office hours:
8:30 a.m. - 6:30 p.m. Monday - Thursday
8:30 a.m. - 2:00 p.m. Friday

| Chief Administrative Officer, | Jack B. Rollins |
| :--- | :--- |
| Area Campuses | $386-255-7423$, Ext. 4010 |
| Area Campus Coordinator | David Mealor |
|  | A107K Student Services Bldg K |
|  | $407-328-2471$ |
| Associate Area Campus | Charles McQuillen |
| Coordinator | $386-255-7423$, Ext. 4052 |
| Administrative Assistant | Gloria Lambert |
|  | A107K Student Services Bldg K |
|  | $407-328-2471$ |

Bookstore 407-328-2021
Hours:
7:45 a.m. - 7:00 p.m. Monday - Thursday
7:45 a.m. - 4:00 p.m. Friday

The UCF Seminole site supports a wide variety of majors through diverse class offerings. Computer labs and interactive classrooms are available to support the student process and faculty's teaching needs. Admissions, financial aid, registration, and other support services are readily available through the support staff in the office.

The Colleges of Arts \& Sciences, Business, Education, Engineering, and Health \& Public Affairs offer classes at the graduate and undergraduate level at this site.

## UCF South Orlando <br> 7300 Lake Ellenor Drive, Orlando, FL 32809; <br> 407-856-6585

Assistant Vice President: Cecelia H. Rivers
Associate Director: Wendy Bolyard
UCF South Orlando, located in Orlando Central Park near Florida Mall, offers a varied menu of University programs and services for the convenience of employees and residents of Southwest Orlando and north Osceola county. UCF South Orlando actively seeks partnerships with local businesses and organizations to maximize the benefit of the center to the local community and further the mission of the University.

The onsite credit and non-credit educational programs are developed in cooperation with the academic colleges and institutes. In addition to live instruction, distance learning classes are featured, including web-based, media enhanced, interactive television (ITV) and FEEDs (video) courses. UCF South Orlando supports non-traditional and traditional learners by offering day and evening courses and an array of support services.

The UCF South Orlando facility rests on 20 acres adjacent to beautiful Lake Ellenor and is a prime location for University meetings and special events; limited short-term facility rental also is available on a space-available basis.

## UCF's Valencia Community College Site <br> 1800 South Kirkman Road <br> Orlando, FL 32811

Office hours:
8:30 a.m. - 6:30 p.m. Monday - Thursday
8:30 a.m. - 2:00 p.m. Friday
Chief Administrative Officer,

Area Campuses
Area Campus Coordinator

Associate Area Campus
Coordinator

Jack B. Rollins
386-255-7423, Ext. 4010
David Mealor
A107K Student Services Bldg K 407-328-2471
Charles McQuillen
386-255-7423, Ext. 4052

TBA
Building 6, Room 326
407-299-5000, Ext. 5500
Bookstore 407-299-5000, Ext. 1471
Hours:
7:00 a.m. - 7:00 p.m. Monday - Thursday
7:00 a.m. - 4:30 p.m. Friday
The UCF Valencia site offers both undergraduate and graduate classes primarily in the afternoon and evenings. Classes are offered live or by way of interactive television. Complete computer lab and support facilities are available to students to enhance the learning process. Admissions, financial aid, registration, and other support services are available readily through the office.

Classes are offered through the Colleges of Arts \& Sciences, Business, and Health \& Public Affairs, supporting a wide variety of majors.

## Central Florida Research Park

The Central Florida Research Park, adjacent to the main UCF campus, is a University-related research park established as a result of legislation passed by the Florida Legislature in 1978. The Research Park is a cooperative effort between UCF, the Orange County Research and Development Authority, and the Orange County Board of County Commissioners (which appoints the members of the Authority). The governing body of the Research Park is the Orange County Research and Development Authority.

The objectives of the Central Florida Research Park are in keeping with the legislative action that enabled its creation "to encourage and promote the establishment of research and development activity combining the resources of institutions of higher learning, private sector enterprise involved in pure or applied research, and state or federal governmental agency research."

The ultimate goal of University-related research parks is to establish an academic/industrial community. The University and officials of the Central Florida Research Park believe that the potential for the establishment of close ties between the University and industry will create an environment conducive to the location of research-oriented industry in the Research Park. This activity will enrich and support the academic, teaching, and research programs of the University. The University, in turn, can provide the necessary expertise and human resources to enhance the research and development activities required and planned by Research Park residents.

The Central Florida Research Park consists of over 1,000 acres of land. Businesses desiring a "university relationship" can purchase or lease land in the Research Park on which to construct a facility or can lease space for office, office/lab, or light manufacturing activities.

Research Park tenants are involved with the University of Central Florida through sponsored research, using faculty as consultants, and using graduate and undergraduate students for intern programs and part-time employment. Research Park tenants can also contract with the University for use of the library, computer resources, and laboratory facilities. Cooperative projects range from technical research to developing business plans and employee training programs.

## Endowed Chairs

Endowed chairs are established under the Florida Major Gifts Trust Fund, which provides $\$ 420,000$ in state funds to match $\$ 600,000$ in contributions from private sources within a six-year period. UCF presently has ten fully-funded endowed chairs and three others fully pledged:

Phillips-Schenck Chair in American Private Enterprise: Created in 1980 as the focal point for a continual dialog on major economic issues, comparative economic systems, and economic decision-making in business. Chair: David F. Scott, Jr.

Charles N. Millican Chair in Computer Science: Created in 1983 and dedicated to probing the frontiers of computer science, with emphasis on the direction that the discipline will take over the next decade. Chair: Narsingh Deo.

William and Alice Jenkins Chair in Community Arts: Created in 1986 to enable UCF to design and oversee programs covering art administration, art therapy, and art education within the Central Florida community.

Carl H. Galloway Chair for Excellence in Business: Created in 1986 to honor Carl Galloway, a pioneer in telecommunications. The purpose is to enhance scholarly activity in teaching and research in the College of Business Administration.

The Cobb Family Eminent Chair in Optical Sciences and Engineering: Created in 1988 to support the work of an internationally recognized scholar in laser and optical sciences. Chair: George I. A. Stegeman.

Darden Eminent Scholar Chair in Restaurant Management: Created in 1990 to develop a program of excellence in restaurant management. This chair, the first of its kind in the country, will also serve as a critical resource for the hospitality industry.

SunTrust, N.A. Eminent Chair in Banking for Teaching Excellence: Created in 1989 to attract a nationally or internationally prominent expert in banking with a strong commitment to undergraduate, graduate, and executive development. Chair: Stanley Smith.

Al Burnett-Contemporary Cars Eminent Scholar Chair in Accounting: Created in 1989 to support an exceptional faculty member in the School of Accounting. Chair: Robin W. Roberts.

Bert Fish Memorial Eminent Scholar Chair: Created in 1990 to establish an endowed chair in nursing education. This is the first chair to be established at the Daytona Campus. It is designed to improve nursing education and ease the shortage of nurses. Chair: Angeline A. Bushy.

Lockheed Martin Academy in Math and Science Education: Created in 1992 to stress content enhancement and problem solving approaches in the teaching of science and mathematics. Chair: Michael C. Hynes.

## University Ombuds Office

The Office of the Ombuds Officer provides members of the University community assistance and advice regarding concerns related to the University. These services are available to every member of the University community: students, staff, faculty, and others. Any type of concern may be brought to the attention of this office: academic, financial, housing, consumer, work-related, or personal. The University Ombuds Officer is a neutral facilitator, and will listen to concerns, help individuals explore
options, offer suggestion and advice, and assist in the resolution of the concern. Referral and direction to appropriate individuals and offices, and clarification of University policies and procedures are services of the office. All proceedings in individual cases will be held confidential by the Ombuds Officer unless otherwise authorized by the complainant, or otherwise required by applicable law, including without limitation, Chapter 119, Florida Statutes. The University Ombuds Office is located in Millican Hall, room 338F. Appointments may be made by calling 407-823-6440.

## UCF Public Safety and Police

The UCF Police Department is a full-service law enforcement agency. The 43 certified police officers provide police services twenty-four hours a day, seven days a week. The Patrol Division (407-823-5283) patrols the campus on foot, marked patrol cars, and on marked motorcycles. They are supplemented by an additional seven police officers of the Mountain Bike Unit (407-823-6672), who patrol the campus on mountain bikes. The Investigations Unit (407-823-5980) consists of three detectives who investigate all unresolved criminal cases.

The Crime Prevention Unit (407-823-2165) presents crime prevention seminars for property protection and personal safety for the community. The Crime Prevention Unit also supervises the Community-Oriented Policing program (COP), which consists of five officers assigned to campus zones. These officers work closely with the faculty, staff, and students in a police/ community partnership to reduce crime concerns in their zones. Furthermore, the Crime Prevention Unit also hires and trains students for the Student Escort Patrol Service (SEPS, 407-823-2424), which is an evening escort service for all individuals on campus (Sunday through Thursday evenings, 7:00 p.m. to 1:30 a.m.). The Victim Services Unit (407-823-6332/6069) provides services for: 1) emotional support and practical assistance; 2) information and referrals; and 3) education. The Parking Services Division (407-823-5812) maintains campus parking and provides assistance to stranded motorists. For more information see their website at http://parking.ucf.edu

UCFPD publishes a complete brochure titled Knight's Safety Guide. The Knight's Safety Guide presents an overview of all police services and offers crime prevention safety tips and campus crime statistics in compliance with Florida Public Records Law and the Federal Crime Awareness and Security Act of 1990. The entire Safety Guide brochure can be found on the UCFPD website at http://police.ucf.edu, and is available upon request.

## Information Technologies \& Resources

## Vice Provost: Joel L. Hartman; MH 326; Phone 407-823-6778

The Division of Information Technologies and Resources has University-wide responsibility for planning, implementation, and support of information technology resources. Units within the Division include the Library, Computer Services, Telecommunications, Instructional Resources, and Course Development \& Web Services. The services and resources of each unit are described in the following sections.

## University Libraries

Director: Barry B. Baker; LR 512; 407-823-2564; http://library.ucf.edu
Associate Director for Administrative Services: Frank R. Allen; LR 512; 407-823-2564

Librarians: Ellen P. Anderson, Joseph C. Andrews, Buenaventura B. Basco, Penny M. Beile, Jennifer M. Block, Linda K. Colding, Eda M. Correa, John R. "Rich" Gause, Jr., Donna R. Goda, Carole S. Hinshaw, Athena R. Hoeppner, Phyllis J. Hudson, Selma K. Jaskowski, Lyn S. Karafotias, Patricia E. Kenly, Elizabeth K. Killingsworth, Marcus D. Kilman, Allison O. King, Cynthia M. Kisby, Chang C. Lee, Cheryl G. Mahan, Kimberly K. Montgomery, Jeanne M.Piascik, Meredith C. Semones, Roger D. Simmons, Marilyn R. Snow, Peter Spyers-Duran II, Mem T. Stahley, Linda J. Sutton, Jeannette A. Ward, Jack L. Webb, Ying Zhang.

The main University Library houses a collection of more than 1.3 million volumes, including 9,000 current serial subscriptions. In addition to bound volumes, the Library owns approximately 2.2 million microforms and 30,000 media titles. UCF is a partial depository for both United States and Florida government publications. The Library is open approximately 103 hours per week, including evenings and weekends. Current hours are available on the web site at http://library.ucf.edu/hours.htm or by calling 407-823-2756.

Over 230 computer workstations are available for public use on all five floors of the University Library. Included in this total are 20 laptops equipped with wireless cards that may be checked out for use anywhere in the Library building. Patrons who have laptops with wireless cards also can bring their own computers to the Library and connect to the Library's electronic resources and to the Internet from anywhere in the building. The Library also has two classrooms outfitted with 41 computer workstations for hands-on instruction in the use of electronic resources.

WebLUIS, the Library's web-base catalog, can be accessed from any public as well as home PC. WebLUIS also offers a gateway to hundreds of electronic databases, the catalogs of other state university system libraries, and the community college system libraries.

For help and advice in the use of the Library and its materials, the Reference Desk is open during most library hours. Librarians are on duty for assistance with interpreting the online catalog (holdings and locations), as well as with electronic reference sources and other library collections. Librarians are on duty to assist in the use of the online catalog (WebLUIS), electronic reference sources, and other library collections. Assistance also is available through the "Ask a Librarian" service, by telephone at 407-823-2562, or at http://library.ucf.edu/quickref/.

The Interlibrary Loan and Document Delivery Services Department (ILL) assists students in obtaining materials not owned by the Library. Most book loans and photocopied materials can be acquired free of charge within two weeks. Request forms are available on the ILL web site at http://library.ucf.edu/ill, or at the ILL Office (room 221). For more information, call 407-823-2383 during office hours, or visit the ILL web site.

Special services are provided for people with disabilities. By using WebLUIS, students can determine the availability of books they need and telephone the Library to request that books be retrieved from the shelves and brought to them at the circulation desk. A Kurzweil reading machine is available in the Library for people with visual impairments; students can arrange for instruction in its use. Through the cooperation of the University's Office of Student Disability Services and the Florida Bureau of Blind Services, the Library staff will aid disabled students in obtaining special equipment they may need to
use Library resources.
The Curriculum Materials Center, a unit of the University Library, is located in the Education Building. The CMC provides representative K-12 educational curriculum materials for preview, review, analysis, and circulation. The facility serves primarily the students and faculty of the College of Education (COE); however, it is open to all campus faculty, staff, and students. For more information see the CMC web page at http://library.ucf.edu/cmc or call 407-823-2791.

Additional library collections are available at the Brevard Community College/University of Central Florida Joint Use Library in Cocoa and the Daytona Beach Community College Library in Daytona Beach. At both locations, the University partners with the local community college to provide complete information services, including materials processing and checkout. Both locations have electronic access to LUIS and to University resources on the web. Courier and intercampus loan services make the main library's collections available to UCF students at all area campus sites. For more information see the web site at http://library.ucf.edu/branches.htm.

Computer Services and Telecommunications

## Director: William H. Branch; CSB 305; 407-823-2711

Computer Services and Telecommunications provides central support for administrative data processing, academic computing support, telecommunications networks, e-mail, campus telephone services, training, user help, and microcomputer sales and support. Academic computing is supported primarily through the following systems: Sun Enterprise 450, 3XXX, 5XXX systems, a series of Novell LAN fileservers, and other Internet and campus facilities. Five public access PC labs, available to all faculty and students, are located around campus. Two labs are in Computer Center II: Main Lab West (CCII 104) and Main Lab East (CCII 113). The other labs are located in the following buildings: Classroom 1 (CLI 101), Education (EDU 326A), Library (2nd floor library), and Magruder lab in Business Administration (BA 148). UNIX equipment is available in CCII and Macintosh labs are available in CCII and EDU. Most labs are open seven days a week with extended hours. The CyberKnight Center is located in CCII to assist students with computer and internet needs.

Voice response systems support dial-up access to registration, grades, and financial aid information. Similar information and services are available from https://polaris.ucf.edu/. Campus kiosk workstations are available in the following buildings: Millican, Library, Business Administration, College of Health and Public Affairs, Computer Science, Colburn, Howard Phillips, Bookstore, Education, Communication, Visual Arts, Math/Physics, Biology, Chemistry, Engineering, CREOL, and Downtown, Daytona, and Brevard Campuses. Additional information is available on-line at http://www.ucf.edu/. Computer accounts are provided to all students, faculty, and staff for access to e-mail, public computer labs, and campus backbone network.

The University also operates a full service, on-campus computer store (Student Union) that provides the UCF community computer products and services that adhere to campus standards. The store is an authorized campus reseller for Dell, Apple, IBM, Microsoft, and other major brands. Training classes and computer equipment maintenance services are also available from the store.

Main campus telephone services are provided by the Telecommunications Department's Siemens multinode PBX. Campus residence students have the option to subscribe to voicemail and access to the
long distance carrier of their choice. AT\&T is the primary long distance provider to the campus.

## Office of Instructional Resources

Director: Ruth Marshall; Classroom Building 1, Room 203; 407-823-2571, Fax 407-823-2109; http://www.oir.ucf.edu

The Office of Instructional Resources (OIR) supports UCF administrators, faculty, and staff with multimedia design and production, digital media, webcasting, video production, audio production, photography, graphics, and a full range of multimedia classroom support services. OIR manages UCF's interactive video network, which includes seven origination rooms on the main campus and ten receiving rooms at branch campus locations. OIR's facilities include the Digital Image Processing Lab (DIPL), located in the Research Pavilion in the Central Florida Research Park. In association with its community partners, DIPL offers UCF faculty access to state-of-the-art digital imaging technologies including digital-image processing, digital document scanning, and CD-ROM production. OIR's Faculty Multimedia Center (CL1 202) provides multimedia production and training resources for faculty using Macintosh and Windows personal computer systems. OIR's Electronic Classroom (CL1 320 ) is used for videoconferencing and ITV course origination. The room also provides faculty with excellent locations for training in ITV production and delivery skills. The Partnership Classroom in CL1 212 also provides UCF faculty with a facility to demonstrate new classroom technologies in associations with UCF industry partners. OIR also supports more than seventy advanced multimedia classrooms and six interactive video origination classrooms located throughout the campus.

OIR provides UCF with an array of distributed-learning delivery systems including an interactive video network that serves several rooms on the main campus; UCF Downtown; the branch campuses at Brevard, Daytona, UCF South Orlando, Palm Bay; Florida Gulf Coast University; and other off-campus locations. An ITFS network serves the main campus, UCF Downtown, and the branch campuses in Brevard, Daytona, and UCF South Orlando; Ku and C-band satellite reception; and cable television delivery on the main campus. OIR also manages UCF's ISDN (384k) videoconference equipment and services.

## Course Development \& Web Services

## Director: Barbara Truman-Davis; LIB 107; 407-823-3718; http://reach.ucf.edu/~coursdev

Course Development \& Web Services (CD\&WS) supports teaching and learning online at UCF. The unit is responsible for offering classes to faculty about teaching online such as IDL 6543 (http://reach.ucf.edu/~idl6543) offered twice each year and WebCT Academy (http://reach.ucf.edu/~webct411) offered year-round to all faculty, staff, and student assistants. CD\&WS also produces online courses and web sites found on the Reach Server (http://reach.ucf.edu) and maintains the University's primary web site. Webmaster support through training and referrals is available upon request for departments and faculty needing web-based authoring. Special events are held regularly to promote campus-wide participation and web-based research and development.

CD\&WS is comprised of teams of instructional designers and digital-media specialists, software engineers, and programmers called "Techrangers" who work with faculty, departments, and students to create collaborative digital media projects. The Pegasus CD-ROM is produced annually by CD\&WS to provide the UCF community with Internet software tools, tutorials, and UCF information (see
http://reach.ucf.edu/~coursdev/).

## Instructional Television

ENGR 387; 407-823-2481
The University offers a variety of courses by way of television. These are available either live or on tape at various locations both on and off campus. Live courses may be viewed at the Brevard and Daytona Beach campuses, as well as at selected sites around the Greater Orlando area. Live courses also may be viewed on a cable channel in the dorms and at several fraternity and sorority houses. Some courses also are broadcast to individual homes through local cable companies in Brevard and Orange counties. Courses on tape are available in the learning centers or libraries at all of the University's campuses. Courses available on tape or live television are listed each semester in the online Class Schedule (http://ClassSchedule.ucf.edu).

## Intercollegiate Athletics

Programs in Intercollegiate Athletics are coordinated by athletic department coaches and staff under the general supervision of the Director of Athletics. The University of Central Florida is a member of the National Collegiate Athletic Association (NCAA), Division I and competes in the Trans-America Athletic Confer-ence. Intercollegiate athletic contests are governed by the rules of play published by NCAA and all established eligibility standards are observed. UCF's current intercollegiate sports for men include baseball, basketball, cross county, golf, football, soccer, and tennis. Women's sports include basketball, cross-country, golf, rowing, soccer, softball, track, tennis, and volleyball.

## UCF Arena

The UCF Arena is an indoor, multipurpose facility that opened in August of 1991. The Arena is host to a variety of campus events, including all commencement ceremonies, men's and women's basketball games, volleyball games, concerts, lectures, and other sporting and entertainment events. For event or rental information, call 407-823-3070.

## University Bookstore

The UCF Bookstore, located in the John T. Washington Center, is the text book and course material destination. It offers a complete line of UCF clothing, logo gift items, convenience and snack items, as well as a full service cafe. Operating hours when classes are in session are, Monday through Thursday 8:00 a.m. to 7:00 p.m., Friday 8:00 a.m. to 5:00 p.m., and Saturday 10:00 a.m. to 2:00 p.m. For more information call 407-823-2665 or visit the website at http://www.bookstore.ucf.edu/.

## Transit Services

Through joint efforts of UCF, LYNX and the University/Alafaya Corridor Transportation Association (UACTA), UCF students, faculty, and staff have a number of transit options. Three bus routes serve UCF from Oviedo, Downtown Orlando, and both Valencia Community College campuses. Through the use of these routes, commuters can connect to most anywhere in Greater Orlando. These buses normally operate at 30 to 60 minute intervals. The cost to ride LYNX is eighty-five cents per ride. Special passes are available at discounted rates.

The LASER Shuttle is a local shuttle system with three separate routes. These routes connect UCF
with most residential and commercial areas near UCF, as well as the Central Florida Research Park and The Quadrangle. LASER runs every thirty minutes (Monday through Friday) and costs twenty-five cents. Semester passes also are available at substantial savings and are sold at the UCF Student Union Ticket Center. Route maps may be obtained at the Millican Hall Information Booth or by calling UACTA at 407-658-8492, or LYNX at 407-841-8240.

## The Orlando-UCF Shakespeare Festival

The Orlando-UCF Shakespeare Festival is Central Florida's professional classical theater, presenting professional artists in a variety of world-class plays. The Festival provides a year-round calendar of entertainment and educational programs. An Equity company, the Festival presents a fall season of plays at the John and Rita Lowndes Shakespeare Center and the spring repertory season at the Walt Disney Amphitheater in Lake Eola Park.

In its eleventh season, the Festival has achieved a position of national recognition, attracting artists from around the world. The festival has been featured in such national publications as Southern Living, Theater Week, Backstage, and Southern Theater. Among the Festival's educational programs are: "The Young Company," "Shakespeare Alive!," and "Shakesperience." Internships and independent studies with the Festival for UCF students and alumni are available in all departments. For more information, contact Artistic Director Jim Helsinger, 812 East Rollins \#100, Orlando, Florida 32803, 407-893-4600, Fax 407-893-5643.

## The UCF Alumni Association

The University of Central Florida Alumni Association was developed to maintain awareness and support of the University by its alumni. While alumni comprise the core member group, membership in the UCF Alumni Association is available for all phases of UCF life. For children up to age 12, we have the Junior Jousters. Teens age 13-18 can join the Mid-KNIGHTS program. UCF students can join the Student Alumni Association (SAA), offering them valuable interaction with alumni. For parents of UCF students, we offer the Parent Association.

Membership in one of the UCF Alumni Association programs provides many benefits, including:

- Timely information within the pages of Pegasus, UCF's bi-monthly alumni magazine;
- Invitations to events like Homecoming, as well as local and regional alumni get-togethers;
- Free use of the UCF library (main branch);
- Discounts on UCF logo items at the campus Bookstore and other locations;
- Members-only discounts at association-sponsored activities; and
- Numerous personal and professional networking opportunities.

The Alumni Association offers many volunteer opportunities and awards more than $\$ 40,000$ in scholarships to eligible students every year. To join, or for more information, stop by the UCF Alumni Association at Millican Hall 340; 407-UCF-ALUM (823-2586); toll-free (800) 330-ALUM; or visit http://www.ucfalumni.com.

## UCF Foundation, Inc.

The UCF Foundation, Inc. is a non-profit, tax-exempt corporation directed by a 56 member 407-249-4740 for additional information.
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## Division Of Student Development

## And Enrollment Services

Vice President for Student Development and Enrollment Services: Thomas Huddleston, Jr.; MH 282; 407-823-2226

## Introduction

The division of Student Development and Enrollment Services (SDES) is an integral part of the University of Central Florida. Reporting to the Provost, SDES is responsible for the administration and management of programs, services, facilities, and activities designed to support and complement the educational mission of the University while simultaneously improving the student's total collegiate experience.

The Vision of SDES is "Adding Value to the UCF Experience!" Its mission is to build and strengthen student enrollment. This is achieved by providing an optimal student learning environment characterized by excellent customer service, diversity, inclusiveness, partnerships and needed programs, activities, and facilities that add value to the UCF experience.

Key values within the operation of the division are: caring, commitment, collaboration, diversity, excellence, honesty, inclusiveness, innovation, integrity, loyalty, respect, and trust. The efforts of SDES to meet its mission and objectives will be measured by enrollment quality, student retention, customer satisfaction, and student success. These primary outcomes will contribute to creating a competitive advantage for the individual student and the institution.

The division administers programs involving orientation, advisement and academic exploration, registration and admissions, financial assistance, multicultural services, personal counseling, housing, health services, career development and placement, student activities and organizations, special
student services, and a variety of academic development and retention programs. These responsibilities are integral to the mission of the University, addressing the immediate needs of students and faculty while responding to the concerns of other constituencies such as business and industry, parents, alumni, and other educational institutions.

While it is convenient to divide the University and division into units for operational effectiveness and efficiency, students are not so easily compartmentalized. The recognition that each student is a whole and unique person encompasses the basic philosophy of the Division of Student Development and Enrollment Services.

## Academic Development and Retention

Associate Vice President: Maribeth Ehasz; MH 210;
407-823-2169

The unit of Academic Development and Retention (ADR) enhances student retention through the collaborative delivery of operationally excellent services, information, data, and technology that facilitate enrollment, transition, career exploration, academic success, personal development, and career opportunities for successful progression through graduation. For additional information on all of our offices, visit ADR's website at http://sdes.ucf.edu/adr

## Academic Support and Advising (ASAP)

Director: Patricia E. Pates; PH 107; 407-823-6630

The unit of Academic Support and Advising Programs focuses on academic advising, support, retention, and successful progression for targeted student populations. Through a program of assessment, outreach, collaboration, coordination, and technology, the unit provides academic and career advising, learning support, and transition services to first year and other targeted undergraduate students. For more information, visit ASAP's website at http://pegasus.cc.ucf.edu/~asap. These services are provided through the following offices:

## Academic Exploration Program (AEP)

Director: Russell Tiberii; PH 104; 407-823-5322
Major Exploration Coordinator: Saiful-Islam Abdul-Ahad

The Academic Exploration Program (AEP) is a student-centered source of support and guidance for first year students who choose to explore the many options that are available to them rather than prematurely deciding on an academic major. With the guidance of an AEP academic advisor, and with the assistance of other professional resources throughout UCF, students are provided with opportunities to participate in workshops, seminars, and individual academic advising. They may also choose to participate in a credit-granting, student success strategies course that engages them in activities of academic major exploration and helps them assess academic interests, skills, personal qualities, characteristics, and abilities. AEP provides students with an organized approach to making thoughtful, well-informed, and meaningful decisions about their educational goals. The objective of the program is to assist students with choosing an academic major and to develop an understanding of the relationships between majors and careers.

Each student in AEP is assigned an individual academic advisor. The advisor provides assistance with course selection during registration each semester. Throughout the academic year they are available to assist students with short and long range academic planning. For more information, visit AEP's website at http://sdes.ucf.edu/.

## Academic Services for Student-Athletes (ASSA)

## Interim Director: Raphael Robinson; WDS Center 123B;

407-823-5895

The University makes a strong commitment to its student-athletes. The Office of Academic Services for Student-Athletes collaborates with the Athletic Department to ensure that student-athletes balance the academic demands of the full-time student with the competition of Division I intercollegiate athletics through the NCAA CHAMPS Life Skills Program. The focus of the program is on five commitments: athletic excellence, academic excellence, personal development, service, and career development.

ASSA assists students in making a successful transition to University life by providing answers to questions as they arise, solutions for problems students might encounter, and an opportunity to meet faculty and staff at the University of Central Florida. These efforts and others culminate for the student with graduation, job placement, or graduate school.

Through cooperation with college departments, professional advisors advise student-athletes according to requirements for their program of study. Academic support services include organized study sessions, tutorial services, time management, study skills instruction, and a college success strategies course. For more information, please visit ASSA website at http://pegasus.cc.ucf.edu/~assa.

## First-Year Advising and Information Services (FY)

Director: Robert E. Snow; PH 116; 407-823-3789

UCF recognizes that starting in a new learning environment can present many challenging life transitions for incoming students. First Year Advising and Information Services has been established to prepare and advise first-time-in-college students who are not assigned to other first-year advising offices. The overriding mission of the office is to assist first-year students by providing general education advising services and other programs that will lead to their overall satisfaction and success at UCF.

To fulfill this mission, the office focuses its efforts on providing proactive advising support, serving as a centralized source of academic information, conducting personalized advising and academic services, establishing early and regular communication, providing outreach activities for freshmen in off-campus residences, and tracking the academic progress and success of its target student population. In addition, high school students admitted to UCF as part of the Early Admission or Dual Enrollment programs are advised and academically supported through this office.

FY works collaboratively with college advisors to provide accurate academic program information and to create appropriate academic plans for students. This process begins with the new student orientation process and continues throughout the student's first year experience. For further information, visit Phillips Hall room 116, or our website at http://pegasus.cc.ucf.edu/~firstyr/

## National Consortium for Academics and Sports (NCAS)

Director: Suzi Katz; WDS Center 123; 407-823-5243

The mission of the National Consortium for Academics and Sports at the University of Central Florida is to help create a better society by focusing on educational attainment and using the power and appeal of sport to positively affect social change in the Central Florida community. The NCAS reaches this mission by building partnerships between the University, local schools, community organizations, and other non-profit agencies that also are committed to serving the community. For additional information, visit the National Consortium for Academics and Sports website at http://sdes.ucf.edu/ncas/

## Student Academic Resource Center (SARC)

The Student Academic Resource Center (SARC) provides high-quality programs that enable UCF students to achieve their academic goals. Some of these programs include: Supplemental Instruction, tutoring, academic advising, and learning enhancement workshops.

The Supplemental Instruction (SI) program focuses on providing help for students in historically difficult courses such as anatomy, biology, chemistry, economics, microbiology, molecular biology, and physics. This important program gives students an opportunity to meet outside of class to compare notes, discuss important concepts, develop strategies for studying the subject, and self-testing.

Free peer tutoring is also available for many UCF subject areas (e.g., accounting, physics, statistics, chemistry, Spanish, economics, and biology, to name a few). In total, SARC provides individual and group tutoring for more than 36 courses.

Each semester, SARC also offers a series of academic workshops designed to address common student issues. Among these are test taking skills, time management, reading effectiveness, and memory improvement. Additionally, preparatory workshops are offered to review for the math and reading portions of the CLAST exam. Computer assisted learning programs also are available for the ACT, GRE, and CLAST exams.

SARC's professional academic advisors provide support for students in the Pegasus Success Program and the College Achievement Program (CAP). A learning skills counselor also is available for students who need study skills advice or who wish to enhance their educational experience. For additional information, visit the Student Academic Resource Center website at
http://pegasus.cc.ucf.edu/~sarc/

## Academic Services

Assistant Dean: David R. Dees; MH 210; 407-823-2691

This office is responsible for administering State of Florida and University academic policies pertaining to academic record changes, curriculum file management, the degree audit program, and University-wide academic policies and graduation requirements. The primary goal of the office is to apply these policies fairly, promptly and evenly according to established guidelines, to provide a prompt response to requests from students, faculty and staff and to maintain accurate and effective computer records for advisement and graduation certification.

## Career Resource Center

Director: Melanie Parker; SRC 185; 407-823-2361

The Career Resource Center provides a broad range of career planning and job search services to UCF students, alumni, and employers. Students beginning studies at UCF are encouraged to start thinking about careers as soon as possible. Career Development Coordinators are available to assist students throughout their college experience. To help students navigate the complexities of the job market, the Center conducts weekly career planning mini-classes, sponsors eight career expos and fairs, and hosts several hundred employer recruiting visits each year. The Center offers an online resume system that can refer resumes to interested employers. Full-time, part-time, and internship job postings are available to students in the CRC library in paper form and on the CRC website at http://www.crc.ucf.edu. Visit the website for further information.

## Counseling and Testing Center

Director: Robert Harman; SRC 203; 407-823-2811

The University of Central Florida Counseling and Testing Center is the only campus agency designated to provide psychological and testing services to University enrolled students. The Center is composed of a professional staff of psychologists, mental health counselors, and test administrators who provide both a confidential atmosphere and a safe environment in which students may explore and resolve issues of concern. The Center maintains and assures confidentiality as provided by law. The Center is open Monday through Friday and operates on an appointment basis. The following counseling services are offered:
\# Personal Counseling
\# Career Counseling
\# Couples/Conjoint Counseling
\# Group Counseling

Testing: The Test Office administers the state College Level Academic Skills Test (CLAST) and the Computer-Adapted CLAST (CAT-CLAST); placement examinations such as the College Placement Test (CPT), Foreign Language Proficiency Exam (FLPE), the Grammar Proficiency Exam (GPE); and the institutional Academic College Test (ACT) and College Level Examination Program (CLEP). It also administers the following national exams:
\# Law School Admissions Test (LSAT)
\# Medical College Admissions Test (MCAT)

For additional information, visit the Counseling and Testing Center website at http://pegasus.cc.ucf.edu/~counstst/

## Orientation Center

Director: Joe Ritchie; SRC 227; 407-823-5105

The orientation program assists entering freshmen and transfer students with their transition to the University of Central Florida by providing information about student services, campus life, academic support, academic advising, and registration. Each freshman and transfer student must attend an orientation session prior to registering for classes. Information is mailed to each student accepted to the University regarding date, time, and location of the orientation sessions. For further information, visit the Orientation Center website at http://sdes.ucf.edu/newstudent/orientation/

## Registrar's Office

University Registrar: Dennis J. Dulniak; MH 161; 407-823-3100

The Registrar's Office, with a commitment to quality service and leading edge technology, provides efficient registration, effectively meets student administrative needs, and ensures a complete enrollment process from registration through graduation. The office maintains the integrity of academic records and coordinates and enforces University policies and procedures campus-wide through cooperation, communication, and leadership. The Registrar's Office is responsible for the management and publication of course offerings, the Undergraduate Catalog, Schedule Web Guide, and the efficient utilization of classroom resources. For further information, visit our website at http://registrar.ucf.edu

## Transfer Services

Director: Mark Allen Poisel; PH 102; 407-823-2231

The Office of Transfer Services has been organized to help transfer students make a seamless transition so that they have a more successful experience at the University of Central Florida. The office provides the following resources and services:
\# Support and referral for transfer students before and after they enroll at UCF;
\# Current information about University programs and policies including entrance and exit requirements;
\# Assistance in resolving problems once students have transferred;
\# Written articulation agreements and inter-institutional relationships between the University of Central Florida and community colleges or universities;
\# Articulation workshops and conferences involving instructional, advising, and administrative personnel from the university, community colleges, and other institutions;
\# Transfer services representative at the UCF Brevard Campus; and
\# Transfer services website at http://pegasus.cc.ucf.edu/~relation and e-mail address: tservices@mail.ucf.edu.

## Campus Life

Associate Vice President: Craig E. Ullom; MH 282;
407-823-2626

The Campus Life unit develops partnerships to provide meaningful programs, quality services, and personal growth opportunities for students in learning environments. Campus Life promotes personal excellence, healthy lifestyles, leadership development, and community responsibility. Departments in Campus Life include: Student Leadership Programs (LEAD Scholars Program, Greek Affairs, Student Activities, United Campus Ministries), Campus Life Facilities (Student Union, Recreation Center, and Intramurals), Student Rights and Responsibilities (Student Conduct, Dispute Resolution, Student Legal Services), Student Health Services, Housing and Residence Life, Off-Campus Student Services (Off-Campus Student Resource Center, Area Campuses).

## Cocoa \& Daytona Campus Life

## Director Brevard: TBA

Director Daytona: Diana L. Weidman

The Cocoa (231 Cocoa; 321-632-1111) and Daytona (34/202 Daytona; 904-255-7423) Campus Life offices provide student services at the branch campuses, including: orientation, career advising, veteran affairs, international student services, and accommodations for disabled students. In addition, the offices provide programs, assistance to clubs and organizations, and miscellaneous test information.

Campus Ministries, United

Director: Brad Crawford; SRC 172; 407-823-5336

The campus ministry is a combined effort of a wide variety of religious persuasions providing students with professional personnel who will encourage spiritual, moral, and social oppor-tunities in a spiritual context within the University community. It offers counseling, scripture study, public lecture and discussion programs, fellowship, recreation, and worship services.

## Dispute Resolution Services

## Coordinator: Peter W. Wallace; SRC 153; 407-823-3477

Dispute Resolution Services enhances the University community by offering mediation training and services directed at resolving interpersonal disputes while promoting individual responsibility. Mediation is a private, voluntary, decision-making process in which one or more impartial persons (mediators) assist people, organizations, and communities in conflict to work toward a variety of goals. This service is available to the University community and is encouraged for those who have been unsuccessful in resolving their differences. Mediation training is conducted once per semester and is offered at two different levels: 1) a basic introduction to conflict resolution skills and mediation techniques session; and 2) as an advanced mediation techniques session. Mediation training and services are provided to students, faculty, and staff at no charge. Dispute Resolution Services also offers educational workshops and outreach programs to foster understanding and promote harmony within the University community. Learn more about Dispute Resolution Services by visiting our website at http://pegasus.cc.ucf.edu/~mediate

## Greek Affairs

Director: Gregory Mason; SU 208; 407-823-2824;
(Greek Council Office, SU 208, 407-823-2072)

The Office of Greek Affairs is committed to providing the best possible fraternity and sorority experience for both students and the University community. This office fosters and promotes the development of national fraternities and sororities by providing advice, services, and programs to ensure all members engage in high-quality undergraduate fraternal experiences that reinforce the organization's founding principles: scholarship, community service, campus involvement, and sisterhood/brotherhood. It encompasses small group living and more importantly, developmental programming for individuals, chapters, chapter alumni boards, house corporation officers, and collegiate governing boards (i.e., Panhellenic Council, Interfraternity Council (IFC), National Pan-Hellenic Council (NPHC), Diversified Greek Council (DGC), and the Greek Council).

Sorority or fraternity life can offer students a "home away from home," a source of job contacts, a scholastic support system, an organization for community service, hands-on experience in running a working entity, and a foundation for long-lasting friendships. Currently, 34 fraternities and sororities involve more than 2,500 students. Greek organizations give college men and women a chance to excel in any area they choose and include students of every race, religion, culture, and background.

Students are encouraged to take a closer look at UCF's Greek System through a participation in fraternity or sorority recruitment. The Interfraternity Council and Panhellenic Council sponsor "Recruitment" or "Rush," which actually consists of visiting the various chapters to meet current members and to ask questions about their organizations. National Pan-Hellenic Council (NPHC) sponsors a Greek Expo, which allows students to become familiar with those groups comprising that governing body. Whether or not an individual chooses to join a fraternity or sorority, Recruitment and Greek Expo are excellent ways to meet people and become acquainted with life at the University of Central Florida.

## Housing and Residence Life

Director: Christopher McCray; HAB 101; 407-823-4663

Regularly enrolled single students paying registration fees for a minimum of nine semester hours may apply for assignment to University residential units. By Fall 2001, approximately 2,600 students will be housed in facilities located in four on-campus residential communities: Apollo Community, Libra Community, Lake Claire Courtyard Apartments, and the Academic Village. A variety of living options are available to residents. On a space-available basis, students may reside in one of the following: double-occupancy bedroom with shared bath, two double occupancy bedrooms with shared bath in a suite-style arrangement, or a single occupancy bedroom in a four-bedroom apartment facility. Priority for assignment to an on-campus apartment facility is given to students with at least 24 hours of college credit. Because of the limited amount of space in University housing facilities, the University does not require any student to live on campus. No on-campus accommodations are available for families or married couples.

Priority for assignment to the residence halls is given to incoming freshmen, who occupy more than 70 percent of the University's on-campus housing capacity. Current residents will occupy most of the remaining space. The spaces set aside for incoming freshmen are limited by the University's overall residence hall capacity. Therefore, those desiring to reside on campus should apply for admission to the University as soon as possible.

Applications for housing can be accepted only from those applicants who have been admitted to the University. Priority for room assignments for new applicants is based on the date of the Housing Office's receipt of the completed housing application. Applicants should carefully read the application
before submitting both it and the appropriate prepayment to the Housing Office

Housing contracts (whether in the on-campus apartments or the residence halls) when issued for Fall Semester occupancy, serve as a two-semester (Fall and Spring) obligation between the applicant and the Housing Office. Housing contracts issued for the Summer Semester are a one-semester (Summer Only) obligation and do not extend to include an assignment to Fall housing accommodations.

Applicants have the option of choosing one of several University meal plans. Specific information concerning University meal plans is available from Sedexho/Marriott Corporation, P.O. Box 168017, UCF, Orlando, FL 32816-0222. Applications and other information concerning University housing may be obtained by consulting the Department of Housing and Residence Life, P.O. Box 163222, UCF, Orlando FL 32816-0222, 407-823-4663.

## Intramural Sports

Associate Director: Jim Wilkening; Recreation Center 101;
407-823-2408

The Intramural Sports program offers the opportunity to participate in more than forty action-filled team, dual and individual sports, including perennial favorites flag football, basketball, soccer, and floor hockey. Several competition divisions are offered to accommodate various skill levels.

A unique aspect of the UCF program is referee development, in which you will be trained to officiate sports, earn money on campus, and have an opportunity to work in the Orlando community. To sign up for a team, as an individual, or for more information, visit http://www.intramurals.com/ucf. Become involved and remember to take a little time each day to play.

## LEAD Scholars Program

Associate Director: Jan Lloyd; SU 208; 407-823-2223; http://reach.ucf.edu/~lead

The LEAD (Leadership Enrichment and Academic Development) Scholars Program is an intense and comprehensive two-year student development program for competitively selected, academically talented first year college students with experience and interest in leadership, academic excellence,
and community service. LEAD Scholars join in a unique partnership with faculty, staff, and alumni community leaders as a way to make an immediate connection with academic and community life.

The general goal of the LEAD Scholars Program is to prepare students to be effective community leaders in personal, professional, and civic communities. This goal is achieved through three venues: academic excellence, leadership, and community service. Students are integrated with faculty in the five colleges of Arts and Sciences, Business Administration, Education, Engineering and Computer Science, and Health and Public Affairs. Each of these colleges hosts two credit foundations of leadership courses providing the primary means of facilitating the focus for study, advisement, and educational activities as it relates to leadership, academic excellence, and community service within the college. Although LEAD Scholars will identify with a particular college, the program is available to students deciding upon their major academic interest as well as those who have settled upon a major. Sophomore students may take a leadership practicum in lieu of a class. Additionally, students will be provided special competitive opportunities to be paired with faculty or staff in the LEAD Scholars Assistantship program.

This program enables students to develop professionally through a special mentoring relationship involving research and/or project development in their area of interest both on campus and in the community. Students are provided opportunities to work on project teams and special programs to develop their leadership skills. Specially structured community service projects are provided for students to enhance their community service development.

Students are selected for this two year program through a competitive process based on academic record, extracurricular and community activities, school recommendation, and expressed interest in leadership, academic excellence, and community service. The LEAD Scholars Program serves as a bridge for participation in leadership opportunities as upper division students and future community leadership roles.

## Office of Student Conduct

SRC 154; 407-823-2851

The Office of Student Conduct addresses alleged violations of the "Rules of Conduct" contained within the student handbook, The Golden Rule. This office is also responsible for advising students of their rights during the Student Conduct Review Process, discipline certification, and student eligibility checks. The Office of Student Conduct annually publishes the student handbook, The Golden Rule, which contains more detailed information on student life. Copies may be obtained at SRC 154, or
 the many services and educational programs available through the Office of Student Conduct and the

## Classroom Responsibility

Students are responsible for maintaining classroom decorum appropriate to the educational environment. When the conduct of a student or group of students varies from acceptable standards and becomes disruptive to normal classroom procedures, the instructor has the authority to remove the offending party from the room and refer the student to the Office of Student Conduct for judicial action.

## Student Conduct

Students are subject to federal and state laws and local ordinances as well as regulations prescribed by the University of Central Florida and the Florida Board of Regents. The breach or violation of any of these laws or regulations may result in judicial action. Detailed conduct regulations and procedures are presented in The Golden Rule.

A person applying for admission to UCF who has declared an adjudication of a violation of conduct policies at a previous college or university or a violation of the law that resulted in probation, community service, a jail sentence, or the revocation or suspension of their driver's license (including traffic violations that resulted in a fine of $\$ 200$ or more) may have circumstances of the case reviewed by the Office of Student Conduct to consider eligibility for admission.

## Office of Student Rights and Responsibilities

Director: Patricia MacKown; SRC 155; 407-823-6960

By offering a wide range of services designed to assist as well as educate students in resolving their disputes, the Office of Student Rights and Responsibilities (OSRR) combines Student Legal Services, Dispute Resolution Services, and the Office of Student Conduct. OSRR provides a forum that contributes to the individual growth and development of the student's knowledge of community responsibilities, due process, conflict resolution skills, and University student conduct rules. Our resources are more effectively used by combining and referring within the judicial knowledge base that exists within these three services.

## Off-Campus Student Resource Center

The Off-Campus Student Resource Center (OCSRC) assists students in their search for off-campus housing accommodations. The Center provides listings of off-campus apartments and/or resources for students needing to find roommates, storage, sublease, transportation, and furniture rental information.

The Off-Campus Student Resource Center also provides UCF students who live off-campus with information regarding a variety of on-campus programs and services. The Center fosters a supportive environment for off-campus students by providing an advocacy for resolving problems, "on the spot" or through campus referrals, and exploring other available resources for students. Students are encouraged to utilize the services offered by the Off-Campus Center, and to become acquainted with the many benefits the campus has to offer.

## Student Recreation Center

Director: Mark Hall; SU 312; 407-823-2117

The Student Recreation Center will open in the fall of 2001. The Center is located on South Gemini Boulevard and offers cardiovascular training equipment, weight training equipment, group exercise rooms, basketball courts, an indoor track, sand volleyball courts, a swimming pool, and a climbing wall. The UCF Wellness Center also is housed in the building. The center sponsors a wide variety of health-related classes, lessons, and programs throughout the year. Playing fields and tennis courts adjacent to the building are available to students when not in use for scheduled events. The Recreation Center is open to all students with a valid UCF ID.

The Recreation Center staff also operates the Lake Claire recreation area, which is located just north of Greek Row. Lake Claire offers picnic facilities, watercraft, and a nature trail. The facilities can be reserved for group activities.

## Student Activities, Office of

## Associate Director: TBA; SU 208; 407-823-6471

The Office of Student Activities provides programs, resources, and services that enhance student life at the University. The office registers over 200 student organizations (e.g., student government, academic/preprofessional and honorary, sports clubs, military, religious, special interests, minority/international, and service groups) and advises the Campus Activities Board (CAB), the Consultants for Effective Leadership (CEL), the Diversity Dialogue Consultants (DDC), Volunteer

UCF (VUCF), and Emerging Knights (EK). Other programs and services sponsored through this office include the Knights of the Roundtable, Family Weekend, and Senior Salute.

## Student Health Services (SHS)

Director: Robert Faust; SHC; 407-823-2701

Recognizing the importance of lifestyle in health and the prevention of disease, Student Health Services combines quality care for illness and accidents with an aggressive health education and lifestyle enhancement program. A Student Wellness Advocate Team (SWAT) enhances the health promotion efforts of the Wellness Center.

The Student Health Center (SHC) is staffed by physicians, advanced registered nurse practitioners, physician assistants, registered nurses, pharmacists, and a full complement of other medical support personnel. Full referral service to Orlando area specialists is established.

Each health fee paying student is entitled to the benefits provided through Student Health Services, which are outlined in printed material available from the Student Health Center. Most office consultations and programs are provided without additional costs. Laboratory tests, x-rays, medications, and some supplies require additional but significantly reduced payments, which may be made with cash, credit card, personal check, or charged to the student's account.

Optional health and accident insurance may be purchased by response to the mailers or by contacting the Office of Student Development and Enrollment Services, Student Government, or the Health Center Business Office itself at 407-823-1087. Please remember that optional health and accident insurance is not part of the Student Health Services program, but is designed to provide for health coverage needs that are beyond the scope of Student Health Services, such as hospital referrals. Charges incurred outside the Student Health Center are the responsibility of the student.

Testing for HIV (AIDS virus) is not done routinely in the Student Health Services laboratory because a program for anonymous testing is available elsewhere, and because arrangements for highly confidential AIDS testing on campus may be made by calling the HIV AIDS Education Office at UCF-AIDS (407-823-2437). Information concerning these programs may be obtained through the Student Health Center (407-823-2701) during regular hours. When the Student Health Center is closed, students may call the Police Department to obtain help for urgent needs.

## Student Leadership Programs

Student Leadership Programs serves as an umbrella organization to address leadership education and development issues. It is composed of a team of four offices within Campus Life: LEAD Scholars Program, Office of Greek Affairs, Office of Student Activities, and United Campus Ministries. Student Leadership Programs was created and implemented by staff from the four offices in cooperation with students, faculty, and other community partners. The director of Student Leadership Programs provides administrative oversight.

The primary vision for the area is the development of an intentional and comprehensive leadership development program that targets specific groups and which provides campus-wide opportunities for students regardless of their class standing and/or level of involvement experience. The programs and activities will address both the short and long term developmental needs of students. Programs will vary in duration from a one-day workshop to an extended program that may involve weeks or months. The focus is to provide a variety of programmatic options that recognize students have different needs, time constraints, and levels of interest.

## Student Legal Services

Director: Patricia MacKown; SRC 155; 407-823-2538

Student Legal Services provides students with advice and consultation, including court representation, in selected areas of law such as landlord/tenant, consumer, simple wills, traffic, and criminal. Each eligible student (i.e., an undergraduate or graduate student currently enrolled in UCF) is entitled to consult free of charge with a Program Attorney about any legal matter not excluded by program guidelines. Students in need of legal services should contact Student Legal Services at 407-823-2538, or visit Student Resource Center Room 155. This service is by appointment only and no legal advice is given over the phone.

## Student Union

Director: Mark Hall; SU 312; 407-823-2117

The Student Union is the meeting place on campus and provides the campus community with a variety of meeting places, offices, programs, and services. The Union is home to a great variety of restaurants, including Joffrey's Coffee, The Sweet Retreat, Steak Escape, Subway, Wendy's, Sbarro, Baja Burrito Kitchen, Mrs. Field's, Pretzel Time, and Locos Pub and Grill. Retail stores include STA Travel, Sonic Boom CD's, Greek Unique, KnightStop Convenience Store, Knightwear, College Optical, and the UCF Computer Store. Other services located in the Union are the SGA Ticket Center, U.S. Postal Center, and ATM's from SunTrust, Bank of America, Huntington Bank, and the UCF Credit Union.

For information, call 407-823-0001.

## Unit of Special Programs

## Assistant Vice President: A.J. Range; MH 282; 407-823-3867

The Unit of Special Programs is vital to the mission and purpose of the University as it seeks to provide leadership and advocacy in programs and services for students with special needs. These specialized opportunities and services enhance and complement existing support and programs that improve retention and create greater student satisfaction. As a result, the following offices are dedicated to providing an optimal student learning environment.

## Creative School for Children

Director: Dolores Burghard; CSC; 407-823-2726

The Creative School for Children (Educational Research Center for Child Development) provides an educational program, including kindergarten-first grade, for children two through seven years old. The daily program is planned and conducted by degreed teachers. The program provides a wide variety of experiences in art, music, language, motor skills, science, math, social studies, perceptual development, socialization, and self-discovery. Planned and spontaneous field trips and special family programs are part of the yearly schedule. Experiences in observation and training in academic areas also are made available to University students. Opportunities for educational research are available to university faculty and graduate students. Operating hours are 7:45 a.m. to 5:15 p.m., Monday through Friday. During the Summer semester, the school conducts a Summer Recreational Day Camp for elementary school children.

## International Student and Scholar Services

Interim Director: Wendell Sparks; Barbara Ying Center 106A; 407-823-2337

The International Student and Scholar Services Office provides assistance and information to the University of Central Florida international community. Its main function is to assist international students and scholars attending UCF in adjusting to the changing lifestyle so as to achieve their educational goals and gain a meaningful living experience in the United States. A wide range of special services is provided to help international students and scholars maintain their non-immigrant visa status. This is done by issuing and processing the necessary immigration documents, such as I-20 A/B and IAP-66, and by interpreting relevant immigration rules and regulations. Counseling and assistance on personal, financial, academic, and cultural concerns also are provided to guide the international students and scholars within the University community. Another important role of the office is to advance the cause of international awareness and cross cultural understanding by the
promotion of many social, cultural, and educational activities of the various international student clubs and organizations.

## Multicultural Academic and Support Services (MASS)

Associate Director: Inez M. Ford; MH 145; 407-823-2716

The Office of Multicultural Academic and Support Services (MASS) provides comprehensive academic support, cultural enrichment, consultation, and referral services that promote the recruitment, admission, retention, and graduation of African American, Hispanic American, Asian American and Native American students. MASS offers personalized advising and support; monitors academic progress; sponsors a six week summer program, Seizing Opportunities for Achievement and Retention (SOAR); and designs and coordinates cultural and social activities to assist multicultural students in realizing their academic, career and personal goals. MASS serves as the focal point of operations in addressing the specific needs, issues and concerns that confront multicultural students at UCF.

## Non-Traditional and Evening/Weekend Student Services

Director: TBA; MH 210; 407-823-2691

The Office of Non-Traditional and Evening/Weekend Student Services is responsible for developing and implementing support services that will enhance the success of adult and evening/weekend students at the University of Central Florida. The office serves as an advocate for adult and evening/weekend students. It works in collaboration with academic and non-academic departments within the University to promote the awareness of adult and evening/weekend students and works with students to solve problems and disseminate pertinent information.

## Information Centers \& Evening/Weekend Student Services:

8:00 a.m. to 9:00 p.m. Monday through Thursday
8:00 a.m. to 5:00 p.m. Friday
Locations: 2nd-floor Millican Hall,
Education Building Lobby, and College of
Business Information Center

8:00 a.m. to 4:00 p.m. Monday through Friday,

10:00 a.m. to 2:00 p.m. Saturday
2:00 p.m. to 5:00 p.m. Sunday
Location: Student Government Kiosk

## Non-Traditional Student Services

8:00 a.m. to 5:00 p.m. Monday through Friday
Locations: MH 210; 407-823-2691
MH 149; 407-823-2707

## Student Disability Services

Director: Philip Kalfin; SRC 132; 407-823-2371

The Office of Student Disability Services provides information and individualized services consistent with the student's documented disability. Such services may include, but are not limited to, orientation to campus facilities and services, assistance with classroom accommodations, assistance with course registration, disabled parking decals, counseling, and referral to campus and community services for students with disabilities.

To be eligible for disability-related services, individuals must have a documented disability as defined by federal and state laws. Services are available to students whose disabilities include, but are not limited to, hearing impairment, manual dexterity impairment, mobility impairment, specific learning disability (such as dyslexia), speech impairment, visual impairment, or other disabilities requiring administrative or academic accommodations. Individuals seeking services are required to provide documenta-tion from an appropriate health care provider or professional.

If a student needs special admission consideration based on a disability, the student should answer this question on the Application for Admission form and send the requested appropriate documentation to the Undergraduate Admissions Office. Students who have a disability that may require special assistance are requested to voluntarily contact the Office of Student Disability Services. All information is confidential and will be used only to assist the student. Information and assistance are available for faculty members working with students with disabilities. A Telecommunication Device for the Deaf (TDD) is available for hearing-impaired or speech-impaired persons with TDDs to contact the University. Telephone 407-823-2116 for TDD calls only.

## Student Outreach Programs

Program Coordinator: Robin Holmes; TR 547, Room 101;
407-823-5580

The primary mission of Student Outreach Programs is to attract, motivate, and prepare select underrepresented student groups to complete a college education. These students are provided with essential information, educational materials and collegial experiences to enhance their preparation for post-secondary study.

A myriad of pre-collegiate programs are administered by Student Outreach. The College Reachout Program (CROP) is supported by the Florida Department of Education and provides campus and school-based programs to strengthen the success skills of students in grades 6-12. The UCF McKnight Center of Excellence is housed at the Callahan Neighborhood Center and offers direct access to the community-based programs for students at every grade level. Community partnerships help to identify high potential students, offer volunteer support and make significant contributions to support program goals and objectives.

Throughout the year, workshops, seminars and other activities and events are sponsored to support the student's personal development and academic achievement. Students are invited to the UCF campus for summer programs that provide an early introduction to college life and which equip students with unique approaches to attain college preparedness.

## Veterans' Affairs

Assistant Director: Scott A. Shorr; MH 149; 407-823-2707

The Office of Veterans' Affairs (OVA) is a center for all veteran students and eligible dependents who are using VA educational benefits to further their education. The office has a professional staff augmented by student veterans who assist in providing information concerning entitlements, filing claims to the Department of Veterans Affairs (DVA), and certifying enrollment at the University. The office also provides counseling for personal and academic concerns, tutorial assistance, and referral to various community agencies. Veterans and eligible dependents must be certified through the Office of Veterans' Affairs to receive DVA educational benefits. The office monitors the academic progress of all those receiving DVA educational benefits. All veterans and eligible dependents are urged to consult the Office of Veterans' Affairs early in the UCF admissions process.

## Veterans' Benefits

Students who are entitled to DVA educational benefits must make initial contact with the Office of Veterans' Affairs. To maintain eligibility for DVA education benefits, students must adhere to the policies and procedures contained in the UCF "Student Veteran Handbook" and DVA rules and regulations. A copy of the "Student Veteran Handbook" can be obtained at the Office of Veterans' Affairs.

The OVA evaluates and awards transfer credit for military training and education in accordance with Department of Veterans Affairs regulations and UCF policies. Credit is awarded for schools and courses only. Transfer credit is not awarded for experience, military skills level and/or special certifications. In addition, no credit is awarded for Basic Military Training. Transfer credit is awarded per the recommendations of the American Council on Education (ACE) Guide, based upon courses and/or training listed on the DD Form 214 or other official military records. U.S. Air Force veterans are asked to provide official copies of Community College of the Air Force transcripts to the Admissions office.

Students eligible for DVA education benefits also may be eligible for a VA Deferral of tuition and fees. The VA Deferment due date is contained in the "Academic Calendar" of this Undergraduate Catalog. Students eligible for financial aid adequate to cover tuition and fees are not eligible for this deferment.

For Fall and Spring semesters, undergraduates must carry at least 12 semester hours for full-time DVA benefits, $9-11$ semester hours for three-quarter time benefits, and 6-8 semester hours for half-time benefits. Five semester hours or less will be reimbursed at cost of tuition and fees or quarter-time depending on DVA Chapter. Check with OVA for summer course load requirements.

Students intending to enroll concurrently at UCF and another institution have the option of receiving DVA benefits, but first must consult with the Office of Veterans' Affairs and obtain a "Transient Permission Form" from their academic advising office. Veterans and eligible dependents who desire to change their major, or who pursue a double major or dual degree, or who add a minor also may receive VA benefits but must make arrangement through the Office of Veterans' Affairs before taking any of the new courses. This includes a minor in military sciences. Note: some majors have room in the program for extra electives that can be filled with courses for a minor or for another major.

To receive veterans' educational benefits, students must maintain satisfactory academic progress and conduct. Accordingly, benefits will be terminated for individuals who are disqualified, excluded, suspended, or expelled from the University. If reinstated by the University following disqualification, exclusion, suspension, or expulsion, the veteran or eligible dependent must contact the Office of Veterans' Affairs to have their DVA educational benefits re-started. Individuals placed on academic probation will continue to receive benefits as long as he or she earns a 2.0 or higher GPA each
semester. For students who fail to maintain satisfactory academic progress, benefits will be terminated once the required semester hours of course work for the program of study are completed, regardless of the GPA or eligibility for graduation.

Veterans and eligible dependents also may draw VA benefits during the periods of eligibility while on cooperative education assignments. Payment is received during both the on-campus semester and the off-campus work terms. Contact the Office of Veterans' Affairs at 407-823-2707 for more specific benefit information on cooperative education.

## Student Financial Assistance

Executive Director: Mary H. McKinney; MH 120;
407-823-2827; For appointment 407-823-5285

This office's primary role is to provide financial assistance to students and families, allowing them to participate fully in the total educational experience. The office is responsible for coordinating and processing all resources for both undergraduate and graduate students. It serves also as the Undergraduate Student Personnel Office. Students may contact the Office of Student Financial Assistance to receive individual, comprehensive counseling by telephone or to schedule an appointment with a counselor. The office provides a complete line of services regarding financial assistance to all students. For more detailed information, visit our website at http://www.ucf.edu.

## Student Government

Director: Sharon Ekern; SU 214; 407-823-2191

Student Government's (SG) purpose is to represent student views on issues affecting UCF and to promote progressive changes that improve campus life. In advocating better communication and understanding among the UCF family, Student Government also provides numerous services that affect student life. These services currently include computer labs, discount tickets to movie theaters and theme parks, free local calling on campus telephones, funding for legal services, recreational services and Campus Activities Board programming. Money allocated by Student Government for these services comes from activity and service fees that students pay during registration. Additionally, UCF clubs and organizations may receive funding for events, projects and travel to conventions. SG coordinates its efforts with the Florida Student Association in lobbying for students' rights on local, state and national government levels.

Student Government's structure is modeled closely after the United States federal government system
in that it contains three branches: executive, legislative, and judicial. The executive branch, composed of the Student Body President, Vice President, Executive Vice President, cabinet, and staff, oversees the daily administrative operation of Student Government. The legislative branch funds campus clubs and organizations and also passes bills and resolutions benefiting the student body. The judicial branch oversees hearings concerning constitutional and legislative issues.

All students are encouraged to take an active role in Student Government. For information outlining how to become involved with SG or how your club or organization can receive funding, contact the Student Government Association offices located in SU 214 (407-823-2191), or visit the Student Government web page at http://www.sga.ucf.edu.

## Undergraduate Admissions

Executive Director: Gordon D. Chavis, Jr.; MH 161;
407-823-3000; email: admission@mail.ucf.edu;
website: http://pegasus.cc.ucf.edu/~admissio/

The Office of Undergraduate Admissions at the University of Central Florida coordinates the admission and enrollment of all undergraduate first-time-in-college, transfer, non-degree, and non-Florida state university transient students to the Orlando, Daytona, and Brevard campuses. The office's primary mission is to identify, attract, and enroll talented, diverse, and academically qualified students who will contribute to and achieve growth and success at the University of Central Florida.

The office administers several programs for prospective students and parents, including daily tours and information sessions, open houses, area receptions for admitted students, and high school and community college visits by admission counselors. It also provides the opportunity to meet one-on-one with an admission counselor on campus. Please contact the office at 407-823-3000 or visit our website for further information. Office hours are: Monday/Thursday 9:00 a.m. to 7:00 p.m., Tuesday/Wednesday/ Friday 9:00 a.m. to 5:00 p.m.
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Undergraduate Admissions

Executive Director: Gordon D. Chavis, Jr.; MH 161;
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website: http://pegasus.cc.ucf.edu/~admissio/

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The Office of Undergraduate Admissions seeks to attract students who are motivated, creative, and committed to academic excellence. The office will accomplish this through personal contacts, strategic communication, information management, and targeted recruitment. The office is dedicated to providing quality customer service through effective teamwork and through the development of collaborative partnerships with both internal and external communities.

The office administers several programs for prospective students and parents, including daily tours and information sessions, open houses, area receptions for admitted students, and high school and community college visits by admission counselors. It also provides the opportunity to meet one-on-one with an admission counselor on campus. Please contact the office at 407-823-3000 or visit our website for further information. Office hours are: Monday/Thursday 9:00 a.m. to 7:00 p.m., Tuesday/Wednesday/ Friday 9:00 a.m. to 5:00 p.m.

## Campus Tours

Tours of campus are available to all interested individuals and are an excellent way to view first-hand the facilities offered at the University. Campus tours are conducted by trained student volunteers and
last approximately one hour. Appointments are not necessary.

Tours leave from the information booth on the second floor of Millican Hall at 10:00 a.m. and 2:00 p.m., Monday through Friday, excepting holidays. Group tours or special requests may be scheduled by calling Undergraduate Admissions at 407-823-5830.

Students are invited to participate in an information session held immediately after each campus tour. These sessions provide general information about the University and the application process. Personal interviews also are available and are encouraged for those students who are finalizing their college plans. Appointments for personal interviews can be made by calling the Undergraduate Admissions Office at 407-823-3000.

## Application for Admission

All interested applicants should complete the "State University System Application for Admission" or the University of Central Florida "Undergraduate Admissions Application" and include a $\$ 20$ in U.S. Currency, non-refundable application fee. Students also may apply online at our web site, http://pegasus.cc.ucf.edu/~admissio/. Students should apply several months in advance of an anticipated start date. Mail admission applications to: Undergraduate Admissions Office, University of Central Florida, P.O. Box 160111, Orlando, FL 32816-0111. Questions concerning admission requirements and applications should be forwarded to the same address or by calling 407-823-3000.

Applications for admission will be accepted up to one year prior to the start of the term desired. The priority application deadlines are May 15 for the Fall semester, November 15 for the Spring semester, and March 15 for the Summer term. The priority deadline for most financial assistance and scholarships is March 1. Information and an application for University housing are sent at the time of admission to the University. Requests for housing are subsequently reviewed by date of the receipt of the housing application. The University encourages applications from qualified persons of both sexes and from all cultural, racial, religious, and ethnic groups. The University does not discriminate on the basis of disability for admission.

Applicants should understand that this Undergraduate Catalog outlines minimum requirements to be considered for admission and that admission to the University is selective. The satisfaction of minimum requirements does not automatically guarantee admission. Conversely, Florida Board of Regents policy allows the University to admit students to any semester as exceptions to the minimum requirements. The Undergraduate Admissions Office and the Admissions and Standards Committee are responsible for the admission of all undergraduate students under this policy.

Applicants must request that official transcripts from each educational institution attended be forwarded directly to the Undergraduate Admissions Office. To be considered official, all supporting
admissions documents must be received directly from the issuing institution or testing agency. All final supporting documents (official transcripts and test scores) must be received by Undergraduate Admissions no later than $\mathbf{1 0}$ days after the first day of classes.

Note: Furnishing false or fraudulent statements in connection with an application for admission or residency affidavit may result in disciplinary action, denial of admission, and invalidation of credits or degrees earned.

Those enrolled students who have not submitted official completed records by the deadline will be placed on administrative hold. Students with these incomplete records will not be permitted to register for a future term until all official transcripts and other required documentation have been received. If, upon review of final transcripts, student records are not satisfactory, they may be placed on academic probation, have their admission status changed to non-degree or transient status, may become ineligible for financial assistance, and may, in some cases, be withdrawn from the University. In addition to the required documentation mentioned above, students must have a satisfactory conduct record at all schools attended.

## Reactivation

Students who have submitted an application to UCF and do not attend, may reactivate the original application within one year of the term for which they first applied. To update the application, students should request and complete a reactivation form by the published application deadline date. This form is available in the Undergraduate Admissions Office or by calling 407-823-3000. This process reactivates the application only; additional credentials may be required. Students will be reevaluated for admission to the new term for which they are applying.

## Limited Access Programs

Admission to the University does not guarantee admission to a limited access program. Some majors at the University limit the number of students who may enroll. Limited access status occurs when student demand exceeds available resources (e.g., faculty, instructional facilities, equipment) or when specific accrediting requirements apply. Criteria for admission are selective and include: indicators of ability and indicators of performance, creativity, or talent to complete required work within the program. For admission to limited access programs, community college transfer students with Associate of Arts degrees from Florida public community colleges are given equal consideration with UCF students. Admission to such programs is governed by

A-10.24 (8), the Articulation Agreement, and by 6C-6.01, FAC, of the Board of Regents (BOR) rules.

## Orientation

All undergraduate degree-seeking students are required to attend orientation prior to enrollment. Orientation information is mailed to all students offered admission to the University.

## Admission Categories

Students may submit applications to the University for one of the following categories:
A. Freshman (First-Time-In-College)
B. Dual Enrollment (includes early admission and dual enrollment, on- or off-campus)
C. Transfer
D. Second Bachelor's Degree
E. Transient (one term enrollment only, not from a Florida public university)
F. Non-Degree Seeking

## Freshman Applicants

Any FTIC student who meets (BOR) minimum admission requirements is encouraged to submit an application. Meeting these minimum requirements does not guarantee admission. The University will do everything possible to accept all qualified applicants who apply by the priority deadline date. If the number of qualified applicants exceeds the number the University is permitted to enroll, admission will be on a selective basis. An applicant's total high school record (including grades, test scores, educational objective, pattern of courses completed, counselor recommendations, essay, and personal achievements and honors) will be considered in the selection process. The University reaffirms its Equal Educational Opportunity (EEO) commitments and seeks to increase the enrollment of multicultural students.

## High School Diploma

Freshmen who are applying for admission to the University are required to have a high school diploma or a General Equivalency Diploma (GED).

## Entrance Examination Scores

All applicants for admission must submit test scores from the Scholastic Aptitude Test (SAT I) or from the American College Test (ACT). In addition, any student whose native language is not English may be required to submit a Test of English as a Foreign Language (TOEFL) score.

## High School Academic Units and Grade Point Average

All applicants must have earned a minimum number of high school academic units (year-long courses that are not remedial in nature) to be considered for admission. A grade point average (GPA) will be computed only on academic courses. Grades in honors courses, advanced courses, International Baccalaureate, and Advanced Placement (AP) courses will be given additional weight in the computation of the academic GPA. The high school academic unit requirements are as follows:

## ACADEMIC SUBJECT

## UNITS REQUIRED

\# English (three of which must have included
substantial writing)
\# Mathematics (at or above the Algebra I level)
\# Natural Science (two of which must have
included substantial laboratory requirements)
\# Social Science (included: history, civics, political science, economics, sociology,
psychology, and geography)
\# Foreign Language (both credits must be in the same language)
\# Additional academic electives from the above
five subject areas and courses recommended by the Florida Assn. of School Administrators, or other groups, and courses recommended by the Articulation Committee and approved by3

## Applicant Eligibility

All applicants must meet the following State University System (SUS) minimum eligibility index standards to be considered for Admission:

If the High School GPA is: Minimum test scores must be:

| HS GPA | SAT | or |
| :--- | :---: | :--- |
| ACT |  |  |
| 2.0 | 1140 | 25 |
| 2.1 | 1110 | 24 |
| 2.2 | 1090 | 24 |
| 2.3 | 1060 | 23 |
| 2.4 | 1030 | 22 |
| 2.5 | 1010 | 21 |
| 2.6 | 1000 | 21 |
| 2.7 | 990 | 21 |
| 2.8 | 980 | 21 |
| 2.9 | 970 | 20 |
| 3.0 | $*$ | $*$ |

* No minimum score required.

Each SUS university reserves the right under BOR rule (6C6.002) to establish admission criteria that exceed BOR minimums.
\# Admission into the University is limited by space availability. The degree of competition for space depends on the number and qualifications of those who apply for admission. To increase the chance of admission, high school students should present credentials that are stronger than the minimum requirements for consideration as listed above. If the number of qualified applicants exceeds the number that the University is able to enroll, a waiting list will be established.
\# A student applying for admission who does not meet established requirements may bring to the University other important attributes or special talents and may be admitted if, in the judgment of the

Admissions and Standards Committee, the student can be expected to do successful academic work. The University will provide appropriate advising for each student admitted under this alternative.
\# Students who have been enrolled in dual enrollment courses will be required to have a minimum "C" average ( 2.0 GPA ) for all completed dual enrollment course work.
\# Any student admitted without two years of one foreign language in high school or the equivalent (minimum eight semester hours) at the post-secondary level, must satisfy this admission requirement prior to earning 60 semester hours of credit.

## Dual Enrollment Applicants

High School students who have demonstrated exceptional academic ability may be permitted to enroll as University students while completing their high school programs. There are three types of dual enrollment programs:

1. Early Admission is for students who have completed their junior year in high school and would like to enroll at the University as full-time students for their senior year of high school. Students must submit an application for admission by the published application deadline date. In addition the following information is required:
\# official copy of high school transcript(s);
\# official copy of Scholastic Aptitude Test (SAT I) or American College Test (ACT);
\# written letter of recommendation from high school counselor;
\# written permission from parents or legal guardian.
2. Dual Enrollment On-Campus is for students who desire to dual enroll on a part-time basis, taking one or two courses on campus, while completing their high school course work. Students must submit an application for admission by the published application deadline date, as well as all items listed above.
3. Dual Enrollment Off-Campus is for students whose high schools sponsor on-site courses at specific high schools. Students earn both high school and college credit for successful completion of course work. Each respective high school selects students who are eligible to participate in these programs. Contact your high school guidance office for detailed information.

## Transfer Applicants

UCF welcomes transfer applicants to the University. Students should submit either the State University System application, the University of Central Florida Undergraduate Admissions Application, or apply on-line at http://pegasus.cc.ucf.edu/~admission/application, and arrange to have official transcripts sent from all colleges attended. The Undergraduate Admissions Office computes a grade point average (GPA) for each institution attended, as well as a cumulative GPA on all college courses attempted. This computation does recognize plus or minus grades effective Fall 2001, but only recognizes grade forgiveness when it is used as part of an Associate of Arts degree from a Florida public community college or Florida public university, with the exception of courses taken previously at UCF. Applicants must have a current minimum cumulative GPA of 2.0, and must have a minimum GPA of 2.0 and be eligible to return as a degree seeking student to the last institution attended to be considered for admission to UCF. Meeting these minimum requirements does not guarantee admission.

Transfer students are required to complete 30 hours in residence at UCF to earn a bachelor's degree. In addition, students must complete 48 hours in residence at UCF to be eligible to receive baccalaureate honors recognition at the time of graduation.

Transfer students are encouraged to review the current edition of UCF's "Transfer Counseling Manual" available in Florida public community college counseling offices. The manual provides the recommended community college course requirements for all majors as well as other helpful information.

## Transfer Applicants With Fewer Than 60 Credit Hours

All college transfer applicants with fewer than 60 semester hours of acceptable credit must minimally meet freshman high school unit entrance requirements, the high school academic GPA, and minimum SAT or ACT scores (as listed on previous page); have at least a 2.0 GPA on a 4.0 system for all college-level academic courses attempted; and be in good standing (minimum 2.0 GPA) and eligible to return as a degree-seeking student to the last institution attended. Meeting these minimum requirements does not guarantee admission.

## Transfer Applicants With an A.A. Degree From a Florida Public Institution

Admission of Associate of Arts (A.A.) degree graduates from Florida public community colleges and Florida state universities will be governed by the Articulation Agreement between the state universities and public community colleges of Florida, as approved by the Board of Regents and the State Board of Education. The agreement states that except for limited access programs, admission as a junior to the upper division of the University shall be granted to any graduate of a state-approved

Florida community college or State University System institution who transfers directly to UCF (see Rule 6A-10.024 below), who has completed the university parallel program; and who has received the Associate of Arts degree, which includes all of the following:
\# At least 60 semester hours of academic work exclusive of occupational courses and basic required physical education courses;
\# An approved general education program of at least 36 semester hours;
\# A GPA of at least 2.0 on a 4.0 system for all college-level academic courses attempted. (Only the final grade received in courses repeated by the student shall be used in computing the average.); and
\# One year of college instruction in a single foreign language. (This requirement applies to those students without the re-quired two units of foreign language in high school.) Students who receive an Associate of Arts degree from a Florida public community college or university prior to September 1, 1989, but who have not met the foreign language requirement may be admitted to the University on a provisional basis.

Any student admitted without two years of one foreign language in high school or the equivalent (minimum eight semester hours) of such instruction at the post-secondary level, must satisfy the admission requirement prior to graduation. Florida Community College Associate of Arts graduates are guaranteed the following rights under the Statewide Articulation Agreement (State Board of Education Rule 6A-10.024):

1. Admission to one of the ten state universities, except to "limited access" programs (programs that have additional admission requirements);
2. Acceptance of at least 60 credit hours by the state universities toward the baccalaureate degree;
3. Transfer of equivalent courses under the statewide Course Numbering System;
4. Acceptance by the state universities of credit earned in accelerated programs (e.g., CLEP, AP, PEP, Dual Enrollment, Early Admission, and International Baccalaureate);
5. No additional General Education Core requirements;
6. Advanced knowledge of selection criteria for limited access programs; and
7. Equal opportunity with native university students to enter limited programs.

Should any guarantee be denied, students have the right of appeal through the Office of Transfer Services.

Transfer Applicants - More Than 60 Hours, Have Not Received an A.A. Degree From a Florida Public Institution

Undergraduate transfer applicants who desire to be admitted as upper division students must have met all of the following requirements:
\# A minimum of 60 semester hours of academic course work;
\# The English and Mathematics requirements of the Gordon Rule; and
\# A minimum of eight semester hours of college instruction in a single foreign language. This requirement applies to those students without the required two units of a single foreign language in high school.

## Second Bachelor's Degree Applicants

Second Bachelor's Degree applications are processed by the Undergraduate Admissions Office or the Registrar's Office. Guidelines for which office students should make application to are outlined as follows:
\# Students who have never attended the University of Central Florida as degree seeking undergraduate students must apply to the Undergraduate Admissions Office. Students should complete the regular undergraduate admissions application form.
\# Students who have attended the University of Central Florida as a degree-seeking undergraduate student should apply through the Registrar's Office. These students complete the "Readmission Application" form.

## Credits From a Previous Baccalaureate Degree

Graduates from other regionally-accredited four-year U.S. institutions who apply for admission to work toward a second undergraduate degree must meet the regular requirements of the University (as defined in the "Undergraduate Degree Requirements" section of this Undergraduate Catalog). Students must meet all transfer GPA requirements. A baccalaureate degree or higher from another accredited four-year U.S. institution satisfies the General Education Program requirements and also provides exemption from the foreign language requirements for admission and graduation.

## Transient Student Applicants

A student in good standing with a minimum 2.0 GPA at the last regionally-accredited institution
attended who desires to enroll for one term at UCF may be considered for admission as a transient student. Such enrollment terminates at the end of one term and does not presuppose regular acceptance to the University. A transient student must submit an official transcript from the last institution attended. Transient student applications must be received by the appropriate application deadline. If a student's last school of attendance is a Florida public university, please refer to the "Registrar's Office" section of this Undergraduate Catalog. Transient students are not eligible to receive financial aid. Registration is permitted on a space-available basis.

## Non-Degree-Seeking Applicants

This classification allows qualified students to enroll in selected courses at the University without satisfying requirements for admission to degree-seeking status. Successful completion of courses while in this classification does not guarantee regular admission at a later date. Non-degree-seeking status is granted in exceptional cases only, and will usually be reviewed by the Admissions and Standards Committee. The following regulations will apply to non-degree-seeking students:

1. Students are required to provide evidence of their educational qualifications for attending classes in order to meet the intent of this enrollment classification;
2. Non-degree-seeking students are subject to the same rules and regulations as degree-seeking students;
3. Registration is permitted on a space-available basis;
4. A maximum of 15 undergraduate baccalaureate semester hours earned as a non-degree-seeking student may be applied toward a degree if a non-degree-seeking student is later accepted as a baccalaureate student;
5. International students may not register as non-degree-seeking since immigration regulations prevent foreign nationals from enrolling without admission to a degree or certificate program; and 6. Non-degree students are not eligible to receive financial aid nor to participate in intercollegiate sports.

## International Applicants

The University of Central Florida is authorized under federal law to enroll non-immigrant alien students. All international candidates applying for admission to UCF must submit a "State University System Application," a University of Central Florida "Undergraduate Admissions Application", or apply online at http://www.ucf.edu. Because of additional processing time needed for International Students, those students should submit the application as early as possible, but no later than May $\mathbf{1}$ for
the Fall Semester, and November $\mathbf{1}$ for the Spring Semester. To complete the application, please follow the steps below.
\# Submit the completed UCF admissions application form with the required $\$ 20.00$ application fee (check or money order for U.S. currency). An on-line application is available on our web site at http://www.ucf.edu.
\# Students who attended an international secondary school that uses a grading and evaluation system different from the U.S. system will need a document-by-document evaluation of the secondary school record in English. This record, which should include performance evaluations, grades for work completed over a period of at least three years, as well as any certificates earned, should be sent to one of the agencies listed below. They will translate it if necessary, evaluate it, and then send their evaluation directly to UCF. A grade point average should be calculated on this evaluation.
\# If the student has attended any international universities, an English translation and evaluation of work completed at each institution will be necessary. Transcripts should be sent to one of the agencies below for a course-by-course evaluation. Please note that if 60 or more semester hours have been earned at a post-secondary institution, it will not be necessary to submit the secondary school records.
\# Results of the TOEFL (Test of English as a Foreign Language) may be required of students whose first language is not English. Information about this examination can be obtained from TOEFL, P.O. Box 6151, Princeton, New Jersey, 08541-6151.
\# Results of the SAT or ACT will be required if the student has earned less than 60 semester hours of college credit. Information regarding these examinations may be obtained from the College Board (SAT), P.O. Box 592, Princeton, NJ, 08540 or from ACT, P.O. Box 414, Iowa City, Iowa, 52243. While there are no specific minimum score requirements on these examinations for admission, they are used in conjunction with other required credentials, and students should prepare sufficiently to achieve the highest possible score on these exams.

Applicants must file a "Confidential Financial Statement" with the International Student Services Office confirming availability of finances for the first year of study. This statement must be on file prior to the issuance of the appropriate immigration papers. The Undergraduate Admissions Office may require additional documents and/or official transcripts before an admission decision is made.

## Educational Translations and Evaluations

Foreign diplomas must meet the requirements specified in Florida Statutes, section 229.814. UCF will accept English translations and evaluations of academic credit from these agencies:

Josef Silny \& Associates
Coral Gables, FL 33124
(305) 666-0233

World Education Services P.O. Box 248233 P.O. Box 745
Old Chelsea Station
New York, NY 10113-0745
(212) 966-6311

## International Student Mandatory Health and Accident Insurance

Each international student accepted for admission shall, prior to registration for classes, submit proof of compliance with the State University System of Florida's mandatory health and accident insurance requirement. Minimum coverage limits may be obtained from the Office of International Student Services. Written proof of insurance must also be provided. If insurance is issued by a foreign carrier or underwriter, a statement must be provided in English to assure that the policy meets the State of Florida minimum levels of insurance coverage.

The University reserves the right to refuse registration to any international student who fails to comply with this insurance requirement or who is unable to supply satisfactory proof of insurance. The University also reserves the right to withdraw from classes any international student who fails to maintain insurance coverage, cancels insurance coverage, or avoids in any way the responsibility to comply with the insurance requirement.

## Transfer Credit: All Applicants

All grades from a regionally-accredited college or university in transfer courses that are normally part of a baccalaureate degree program are shown on the student's permanent UCF record. Effective Fall 2001, the University recognizes a grading system of plus or minus. In addition, grade forgiveness is honored only if it has been awarded as part of an AA or a specific statewide articulated AS degree from a Florida public community college. Credit is not awarded based on job descriptions, CLEP scores below the 50th percentile, life experience, or course work that is non-academic.

## Accredited Institutions

For the purposes of this Undergraduate Catalog "Accredited Institutions" means those colleges and universities accredited by any of the following six regional associations:
\# New England Association of Schools and Colleges;
\# Middle States Association of Colleges and Secondary School, Commission on Institutions of Higher Education;
\# North Central Association of Colleges and Schools, Commission on Colleges and Universities;
\# Northwest Association of Secondary and Higher Schools, Commission on Higher Schools;
\# Southern Association of Colleges and Schools; and
\# Western Association of Schools and Colleges Accrediting Commission for Senior Colleges and Universities and Accrediting Commission for Junior Colleges.

The accreditation status of all foreign institutions must be evaluated through either Josef Silny and Associates, Inc., or World Education Services.

All college level credits earned for which official transcripts have been submitted will be compiled into a "Transfer Summary Report" (TSR) soon after the student is admitted. Some credits listed on the TSR may not be applicable toward graduation course requirements. The TSR will be the basis for constructing a "SASS Degree Audit," which applies earned credits to the intended degree program. This provides the student with an assessment of which degree requirements have been met and what remains to be satisfied. Although all college-level course work transferred from a regionally accredited institution is shown on the TSR and the UCF transcript, applicability of the course toward a degree is determined by the college/school/department of the major.

## General Education Transfer Credits

Transfer students from Florida public community colleges or universities may satisfy the General Education Program requirements of UCF by completing the general education program prescribed by that institution. Transfer applicants with incomplete general education programs will have their credits evaluated on a course-by-course basis at UCF.

## Credits From Private and Out-of-State Institutions

Transfer credit from private junior and senior colleges and out-of-state institutions will be evaluated on a course-by-course basis. Each student must submit the necessary petition(s) to the appropriate office(s) to determine which courses will transfer with regard to degree progress at UCF. Transfer
courses that meet the requirements of the General Education Program and the Gordon Rule are determined through the process described in the "University Degree Requirements" chapter of this Undergraduate Catalog. Petition procedures vary by college. Generally the petitioning of transfer courses for satisfaction of college and major requirements should be done during the second full term of the student's residency at UCF so that the accepted transfer courses are understood clearly by the student and the faculty advisor early in the student's program.

## Credits From Military Service School Courses

Completed military service school courses may be evaluated on the basis of the recommendations of the American Council of Education (ACE) when official credentials have been properly presented. While credit may be granted when courses are equivalent to those offered by the University, recommendations by the ACE are not binding upon the University.

Military credit is not accepted through transfer unless used as part of an Associate of Arts degree from a Florida public community college. Even though military records may have been evaluated by another regionally-accredited institution, it is important to have official credentials sent to the University for evaluation. Credit is not awarded for basic training.

## Baccalaureate Honors

Transfer students should be aware that eligibility for graduation with baccalaureate honors requires the completion of a minimum of 48 semester hours at UCF and is based on an overall grade point average. For more details, refer to 'Academic Honors' within the "Academic Regulations and Procedures" section of this Undergraduate Catalog.

Student Financial Assistance Office

Executive Director: Mary H. McKinney
MH 120; 407-823-2827; email: finaid@mail.ucf.edu;
Website: http://pegasus.cc.ucf.edu/~finaid

Students are encouraged to apply for financial assistance by completing the "Free Application for Federal Student Aid" (FAFSA). The following Financial Assistance policies and procedures are based upon federal, state, and University regulations current for the 2001-2002 academic year. Regulations are subject to change at any time.

## Determining Eligibility

In order to qualify for federal and state financial aid programs, a student must be a citizen or permanent resident of the United States, the Mariana Islands, or the Pacific Trust Territories. Some financial aid programs are available to part-time students; generally at least six credit hours enrollment per term is required. Pell Grants are available to some students attending for less than six hours.

The Student Financial Assistance Office encourages all students to apply for financial aid and to begin the process early. There are many grant, loan, and employment programs available. Most programs require the determination of financial need.

Financial need is calculated by a federal processor who uses a standardized formula: financial need equals the cost of education (specific to the school to be attended) minus the expected family contribution (specific to each applicant) and minus any Veteran's Educational Benefits or other expected resources available. Students and/or parents provide detailed financial information on a Free Application For Student Aid (FAFSA) which generates a need analysis. The results are forwarded to the UCF Student Financial Assistance Office by the federal processor.

## More Specific Eligibility Requirements are Listed Below:

The applicant must have a high school degree and must not be enrolled in an elementary or secondary school.

The applicant must be admitted as a degree-seeking student at UCF in an eligible program.
The applicant must be a U.S. citizen or an eligible non-citizen (e.g. resident alien).

Eligible non-citizensinclude I-151, I-551 and I-688 cardholders as well as some I-94
classifications.

- The applicant must be maintaining Satisfactory Academic Progress toward his/her degree. See the 'Satisfactory Academic Progress Policy' in this chapter.

The applicant must not be in default on any Federal Student Loan and must not owe a repayment on any grant program.

- The male applicant must be registered with Selective Service (if applicable).

Students may not receive aid in excess of the published cost of attendance (Refer to 'School Costs' in this chapter).

The applicant must not have received Federal loans in excess of the established annual or aggregate limits.

- The applicant must show a financial need as computed on the FAFSA (for need based programs).

The applicant must meet minimum hours of enrollment and other program-specific criteria.

## UCF Application Deadlines

To be considered for the full range of aid available for the academic year (beginning with the Fall Semester), the need analysis report must be received from the federal processor by March 1 of the preceding spring.

- Incoming students should not wait to be admitted to UCF before applying for financial aid All students must reapply yearly for financial aid

Federal Pell Grants and Federal Stafford Loans are available on a year-round basis. Students may apply for financial aid in advance of any term and receive aid from these programs if eligible

Students who apply for aid after July 15, should not expect their aid to be paid until well after the beginning of the Fall semester

## Application Procedures

The following steps can take four to six weeks to complete. Students should apply well in advance of the March 1 deadline of the year for which aid is being requested. Students who desire to enter UCF in spring or summer term must also apply by the March 1 deadline of the preceding Spring in order to be considered for the maximum aid available.

## 1. File a Free Application for Federal Student Aid

UCF requires that the student complete the Free Application for Federal Student Aid (FAFSA) or Renewal FAFSA.

Note: The results of the student's FAFSA must be in the financial assistance office by March $\mathbf{1}$ for the next fall and spring semesters, to meet our priority deadline, so that the student may be considered for
all aid available.

Students should read the instruction booklet carefully as they fill out the form. Errors and omissions can prevent the student from receiving aid for which he or she could be eligible. Keep copies of all documents filed. Students may use the financial assistance office website to electronically complete the FAFSA.

Follow-up promptly on all corrections to the FAFSA. If the student's record is "rejected in analysis" by the federal processor, the student should provide them with the information they request as soon as possible. Processing of the student's file will be held up until corrections are made.
2. Request Financial Aid Transcripts (in addition to academic transcripts)

Students applying for financial aid at UCF starting with the fall semester of any year are not required to provide financial aid transcripts. However, mid-year transfer students (i.e., those students who will not attend until spring or summer) must provide a financial aid transcript from every school attended during that school year, whether or not any financial aid was received.

To request financial aid transcripts, students provide the school with their SSN and the name under which the student attended that school. Ask the school to make sure the student's SSN is on the transcript sent to UCF. Allow two to four weeks for processing. If the student is enrolled at another institution at the time of the UCF application process, he or she must wait until completing that term of enrollment before requesting the financial aid transcript.

## 3. Follow-Through

The student's application will not be complete until all documents requested have been filed and reviewed in the financial assistance office. Whenever the student receives financial aid correspondence, he or she should review it thoroughly and follow directions promptly. Delays can be frustrating, as well as costly.

## 4. Verification

Federal regulations require that some students verify the information submitted on their applications. If selected for verification, the student will be asked to provide additional information (such as copies of tax return forms, documentation of household size, untaxed income, etc.). It is not unusual for additional documents to be requested after the initial review of the file. Prompt response to requests for additional documentation will expedite completion of this process. Financial aid cannot be processed or received until verification is complete and all necessary corrections have been made.

## 5. Professional Judgment

Students should contact the Student Financial Assistance Office for an appointment with a counselor if they experience an extenuating circumstance that they were not able to state on the original FAFSA.

## 6. Award Notification

Award and important additional information will be sent to the student after the Student Financial Assistance Office processes the data. The student may provide loan processing information at that time (AFTER APRIL 2001) by completing the Federal Stafford Loan Response Form.

## HELPFUL TIPS:

- Make a copy of tax return forms before submission to IRS.
- Start a folder NOW to save financial aid information and photocopies of all documents filed and received.

Include student's name and SSN on all documents submitted to Student Financial Assistance.
Maintain a current address in the Registrar's Office; all financial aid correspondence is mailed to that address.

- Complete all items necessary to apply for both a Federal Pell Grant and a Federal Stafford Loan, even if it doesn't seem advantageous at the time. The law requires that students be considered for a grant before a loan is offered; choosing a lender now does not obligate the student to process a loan, but will make it easier if additional funds are needed.


## On-line access is available at http://www.ucf.edu

If the student has extenuating circumstances or runs into major problems at anytime, call our appointment line, 407-823-5285, to meet with a counselor.

Office Hours:
Monday: 9:00 AM - 7:00 PM
Tuesday/Wednesday/Friday: 9:00 AM - 5:00 PM
Thursday: $\quad 1: 00$ PM - 7:00 PM
Call 407-823-2827 for other information.

## Transfer Students

Students transferring into UCF after the Fall semester, (i.e., mid-year transfers) must provide UCF with a financial aid transcript from every post-secondary school attended in that academic year, whether or not financial aid was received. If the student is eligible to receive aid at another institution for the academic year in question, please be aware that the only transferable programs are the Federal Pell Grant and the Florida Bright Futures Scholarships. The student must apply for a Federal Stafford Loan at UCF.

To apply for financial aid at UCF, complete all the application procedures listed with one exception. If a need analysis for the year in question has already been filed, the student need only request that the processor forward the information to UCF Code 003954by utilizing Part II of his/her SAR, or by calling 1-800-4-FED AID. To transfer the remainder of a Federal Pell Grant, a student must contact the Federal Processor to request financial aid data be sent to UCF, Code 003954
by utilizing Part II of his/her SAR, or by calling 1-800-4-FED AID.

## Dual Enrollment

Students who have been approved to take classes at another institution may have those hours counted toward meeting financial aid requirements at UCF by:

Submitting to the Student Financial Assistance Office a legible copy of a completed "UCF Transient Student Form" with all required signatures. The form is available from the department of the student's major. This will confirm that the hours will be accepted by UCF toward the degree.

Submitting a copy of the student's registration form and/or invoice confirming that he or she actually enrolled for the hours appearing on the "Transient Student Form."

- Students must submit the requested information before the withdrawal deadline of the semester in which aid is to be disbursed.

Dual enrolled students must make arrangements for paying tuition and fees at the visited school, since there is no deferral mechanism. In addition, it is the student's responsibility to assure that the visited school promptly furnishes UCF with academic transcripts, confirming that the attempted hours are completed. Transcripts or grades should also be submitted to the Student Financial Assistance Office. This will help avoid academic progress problems. If the student expects to receive funds under any of the Federal Loan Programs, he or she must enroll for a minimum of six hours at UCF in UCF classes to meet eligibility requirements.

- Students may not receive financial aid from two institutions at the same time. The student must decide which of the two institutions is the primary school at which he or she are degree-seeking and apply for aid there. Students will sometimes be paid aid at both schools if the schools are not aware of the dual application; however, a monitoring system has been put into place at the federal level to identify these students. This will result in a mandatory repayment back to one of the two schools for the overpayment.


## Independent Student Status

The financial resources of parents do not have to be included in the determination of student's financial need if the student is:

24 years of age or older as of the award year
An orphan or ward of the court
A veteran

Legally and financially responsible for dependents other than a spouse
Married

## UCF Financial Assistance Programs

First-time UCF students will receive an award letter. Other students will receive an award letter once their file is complete. Admission to UCF must be finalized, the student must be classified as Degree-Seeking, the verification process must be completed before a financial aid award will be disbursed, and the student must be meeting the standards for Satisfactory Academic Progress. Other loan and employment programs not based on need are provided below.

Student awards will be based upon: the student's financial need (as determined by a federal formula applied to data provided on your applications), the amount of funds available to UCF, the number of UCF students who qualify for aid, as well as the date the student completes the application process. The amounts listed on the award letter will be estimates based on full-time registration. Awards will be subject to change. Check the chart below to see in how many hours the student must enroll for each semester in order to receive an award from each program. The results of the FAFSA will determine eligibility for these programs. It is the student's responsibility to be aware of minimal hourly requirements for each program. When requirements are no longer met, it is probable that the award will be deleted with no notice to the student.

## Loans

Federal Family Educational Loans are made through private lenders. Undergraduate and degree seeking PostBac students must be enrolled a minimum of six credit hours at UCF in UCF classes at the time of disbursement to receive a loan check. First-time borrowers at UCF must attend an Entrance Interview before a loan will be processed. The times and location of Entrance Interviews will be posted. Entrance Interviews may also be completed by accessing our website and going to Entrance Interviews. Exit Interviews are required for graduation or when enrollment drops below half time. Exit Interviews are available through our website or you may contact the office for times and locations. Half-time for Undergraduate and 5B students is six credits in UCF classes. Payment is deferred until students graduate or drop below half-time enrollment at UCF. Once eligibility has been determined by a need analysis, students must complete and submit a Federal Stafford Loan Request Form by the dates printed below so that processing can be completed in time to receive funds during the term indicated.

November 15 - Fall Semester Loan
March 15 - Spring Semester Loan
June 30 - Summer Term Loan

## Employment

Federal College Work Study (FCWS) jobs are awarded as part of a student's financial aid package if need so indicates: a minimum of six hours enrollment is required for undergraduates. Jobs are
on/off-campus and efforts are made to match job assignments with the student's academic program. Awards are paid as an hourly wage.

The Florida Work Experience Program (FWEP) provides off-campus jobs related to the student's major to help fill unmet financial need established by a current need analysis. Six hours enrollment is necessary. This program is administered by the Office of Cooperative Education, 407-823-2667.

Cooperative Education (Co-op) jobs related to students' educational goals are available off-campus and are not based on need. Contact the Office of Cooperative Education, 407-823-2667.

OPS (Other Personnel Services) jobs are available on-campus and are not related to financial need. Application is made directly to the department advertising the position.

## Emergency Loans

UCF Emergency Short Term Loans are available to currently enrolled students. Loans are granted at the beginning of the semester for books and emergencies. This is not for the payment of tuition and fees. A $\$ 5.00$ non-refundable service charge will be assessed for processing the loan. This service charge, like other debts owed the University, will be deducted at the time of check disbursement. If the loan is canceled, or not picked up, the $\$ 5.00$ service charge still must be paid. The specific repayment date of the loan is noted on the loan contract.

Food Service Loans are available to students who depend totally on financial assistance to cover all debts owed the University and who live on campus. Food Service Loans are processed by Student Financial Assistance. A $\$ 5.00$ non-refundable service charge will be assessed at the time of processing.

## School Costs

Estimated Cost of Attendance 2001-2002
(Full Time Fall/ Spring)
OFF- ON- WITH-PARENTS/
CAMPUS CAMPUS RELATIVES

| Tuition/Fees | $\$ 2,420$ | $\$ 2,420$ | $\$ 2,420$ |
| :--- | ---: | ---: | ---: |
| Books/Supplies | 800 | 800 | 800 |
| Room/Board | 6,750 | 6,040 | 2,770 |
| Personal Exp. | 1,868 | 1,868 | 1,868 |
| Transportation | 1,934 | 450 | 1,934 |
| Total (In State) | $\mathbf{\$ 1 3 , 7 7 2}$ | $\mathbf{\$ 1 1 , 5 7 8}$ | $\mathbf{\$ 9 , 7 9 2}$ |


| Out-Of-State Fee | 7,312 | 7,312 | 7,312 |
| :--- | ---: | ---: | ---: |
| Total (Out of State) $\$ \mathbf{2 1 , 0 8 4}$ | $\mathbf{\$ 1 8 , 8 9 0}$ | $\mathbf{\$ 1 7 , 1 0 4}$ |  |


|  |  | Minimum | Available |
| :---: | :---: | :---: | :---: |
| Second |  |  |  |
|  | Priority | Credit Hrs. | to Graduate |
| Undergraduate |  |  |  |
|  | Deadline | Required | Students |
| Degree Seeking |  |  |  |
| Federal Pell Grant | Before | Prorated | No |
| Students must be considered for a Federal Pell Grant | June 30 | based |  |
| before other forms of aid will be offered; covers a2002 | on hours |  |  |
| maximum of two full-time semesters a year. |  |  |  |

Federal SEOG (Supplemental March 1 ..... 12
No
Educational Opportunity Grant)
UCF Merit Award12No

## Federal College Work Study

March 1
12
No

On-campus jobs; award earned as hourly wage.
Not available to post-baccalaureate students.

## FWEP (Florida Work

## Experience Program)

Off-campus jobs directly related to a student's
major or career goal. Students work from
$25-40 \mathrm{hrs} /$ week and are paid an hourly wage.
Program is administered by the Cooperative

## Federal Stafford Loan Program

Repayment may be deferred. Loan amounts vary as well as interest rates and repayments options.

## Federal Perkins Loans <br> Currently are made at 5\% interest rate; loans deferred until 6 or 9 months after the student graduates or drops below 1/2-time. Not available to post-baccalaureate students.

## Scholarships

A broad range of scholarships are available
through federal, state, institutional, and private
sources. Each has different eligibility criteria.
Consult the "Scholarship Office Handbook" for more information. Inquire about ROTC
scholarships at the ROTC office.

## Federal Unsubsidized Stafford Loans

These loans operate under the same terms as regular Federal Stafford Loans except that financial need is not necessary. In addition, the student is responsible for the payment of interest as it accrues, (alternatively the interest can be capitalized into the loan balance).This

## loan now replaces the Supplemental Loan for

## Students (SLS) previously available

to independent students.

## Federal Parent Loans to <br> Undergraduate Students (PLUS)

These are loans that parents take out on behalf of

| Posted | 6 at UCF | Yes | Yes |
| :--- | :---: | :---: | :---: |
| each term | in UCF | At least half- |  |
|  | classes | time at UCF |  |

March 1
6
Yes
At least half-
time at UCF

Yes
round

Posted

## each semester/

term
6 at UCF
Yes
At least half-
time at UCF

6 at UCF
No
Yes
their children (student must be dependent for financial
aid purposes).

## Deferrals of Tuition and Fees

Financial assistance awards normally will result in the student being granted a deferment of tuition and fee payments. This process occurs automatically if the student has enrolled for sufficient hours, is meeting all general eligibility requirements, and is making satisfactory academic progress. This program makes up for the time lag that normally occurs between the date that tuition and fees are due and the date on which financial aid disbursements are made, which normally is three to four weeks after the semester begins. Students registering for classes during Early Registration must pay or be deferred for tuition and fees early, prior to the beginning of classes. Students who do not pay their fees or have a valid deferment before the early due date will be dropped from their classes.

The student's "Fee Invoice/Schedule" reflects the dollar amount of deferment at the time of printing. Students must use the POLARIS home page to obtain up-to-date information. If the total amount of tuition and fees exceeds the amount of deferment, the difference must be paid by the due date on the "Fee Invoice" (class schedule). Different financial assistance programs require different hours of enrollment for eligibility. The student must make sure he or she is registered for the required number of hours. Students must register for at least 12 hours during the Fall or Spring to receive a FSAG, FSEOG, and UCF Grants; six hours to receive a Federal Pell, Federal Stafford, and Federal Perkins award. (Note: Undergraduate and 5B students must have six hours at UCF in UCF classes for the Federal Stafford loans. Graduate students need at least half-time enrollment.) Some students may receive a Pell Grant with less than six hours. Summer enrollment requirements may be less.

- The following programs are not included in the Automatic Deferral Program: work study programs, third party deferrals, other waivers, and direct-pay scholarships.
- Since awards are subject to change, deferments are also subject to change.

Deferments based on estimated Stafford loans will be canceled if the student does not complete the loan process.

- Financial aid deferments based on federal or state programs that require a FAFSA will not be available to students who do not complete a FAFSA in time for the results to be in UCF's computer system by fee deadline dates. Federal loans cannot be processed without FAFSA data on line to support the award.

Note: Both Subsidized and Unsubsidized Federal Stafford Loans will result in a deferral in the amount of $97 \%$ of the award, since origination fees are taken out by the lender and the guarantee agent in the amount of $3 \%$. It is the responsibility of the student to properly drop classes prior to the end of the add/drop period. Additionally, under any circumstance where previously estimated financial aid cannot be paid and a deferment must be canceled, the student is liable for the cost of tuition, whether or not he/she attended classes. If classes are not dropped by the student, a financial aid deferment may keep them active. The student will be responsible for payment of these classes even if they never attended, and may receive a grade of "F."

## Fund Disbursements

Financial assistance disbursements are not available at the time of registration. Funds will be disbursed after the third week of classes. Therefore, students should make themselves aware of the Automatic Deferment policies and procedures and be prepared to use personal savings or a UCF Short Term Loan for books and other expenses anticipated. Late applicants (those who apply after June 30) will likely find themselves caught up in a processing backlog that could dramatically delay the disbursement of their aid. These individuals should be prepared to cover their own living expenses out-of-pocket well into the semester.

Financial assistance funds for most programs are mailed directly to the student by the UCF Office of Student Accounts unless the student has a Huntington Bank account linked to their UCF Smart Card. If that is the case, the net check amount will be directly deposited in their Huntington account. Initial disbursements should take place after the third week of each semester. Most grant and scholarship checks go through a "net checking" process in which debts owed to the University are deducted from the available assistance. Federal Stafford Loan disbursements will also go through the "net checking" process, if two conditions are met: 1) the student has authorized Electronic Funds Transfer (EFT) on the promissory note; and 2) the student's lender participates in UCF's EFT program. All of the lenders on UCF's preferred lender list participate in the EFT program. Federal Perkins Loan checks must be picked up at the Cashier's Office upon notification by Student Accounts.

For most students who do not participate in EFT, Federal Stafford checks will be held at the cashier's office for pick-up by the student to facilitate any deduction for debts owed to the university. It is the student's responsibility to pay outstanding debts to the school within 21 days of the date of the notification that funds have been disbursed to avoid a late charge. Undergraduate and PostBac ("B" certification only) students must be enrolled in at least six credit hours at UCF in UCF classes at the time of disbursement of each Federal Stafford Loan check. Graduate students need at least half-time enrollment.

Note: The verification process must be complete before financial assistance funds will be released. Students on Financial Assistance Cancellation will not receive funds.

## Federal Stafford Loans

Student loan check(s) or EFT disbursements will be sent to the University of Central Florida after the lender has received a completed application/promissory note approved by UCF. We strongly suggest that you follow-up with your lender if you have not received your loan check within 20 days of mailing your promissory note or notification by the UCF Financial Assistance Office of a problem. To estimate when your Federal Student Loan funds will be mailed, refer to the Disclosure Statement from your lender; it indicates a date the lender intends to send the funds to UCF. If that date is before the semester starts, please allow ten working days from the first day of classes before inquiring about your funds. If the date is after the semester begins, please allow ten working days from the disbursement date for UCF processing. Loan checks or funds will be disbursed after the beginning of classes, usually after the third week of classes.

First-time borrowers at UCF: must attend an "Entrance Interview" at UCF before the loan award can be made. The times and location of entrance interviews will be posted. Sessions may also be available at orientation and at our website: http://pegasus.cc.ucf.edu/~finaid.

Two-term loans: to receive the second half of a two-term loan, the student must have received the first disbursement, and be enrolled for at least six hours at UCF (graduates-at least half-time) for the second semester to receive the second check. If the student did not accept the first term loan disbursement, he or she cannot receive the second term disbursement and must cancel the original loan request and reapply for a new loan through Student Financial Assistance.

Summer Term: undergraduate students must have a minimum of six hours at UCF in UCF classes to receive assistance. If the student's hours include Summer B hours that are needed to meet the minimum requirements, funds will not be disbursed until Summer B term. Graduates require at least half-time enrollment.

Exit Interviews are required upon graduation or departure from UCF. Be sure to file address changes with the Registrar's Office as they occur.

## Award Notification

In the spring of each year, most students will be notified of the estimated awards they should receive in the coming school year. Award notices may not go out to students who were selected for verification, and have not completed that process, since verification corrections often alter award eligibility. Notification will also not go out to students who have been canceled from financial assistance due to a problem with academic progress. Award letters that are sent out anytime prior to the beginning of the semester will disclose estimated awards based on the enrollment information provided by the student on the FAFSA. If the student enrolls for less than 12 hours, some estimated awards may change. In addition, new information brought to the attention of our office (such as third party benefits, waivers or deferrals, prepaid tuition plans, or newly awarded scholarships) can cause a reduction in the amount of previously estimated need-based assistance.

Award letters are sent out to students who miss the application priority deadline once there is enough information on file to make an awarding decision. Verification students will receive their award notifications once that process is complete. Regardless of when the notification is sent out, it will be accompanied by a comprehensive information insert. Students should read this insert carefully and follow the instructions.

Only students receiving Perkins Loans are required to return signed appropriate documents of receipt to acknowledge acceptance of the award. Please note that although an estimated Federal Stafford loan may appear on the award letter to notify students that they are eligible for that form of assistance, the student still must apply for the loan by completing the requested information on the 'Federal Stafford Loan Response Form."

## Overawards/Overpayments

Awarding of a financial aid package involves matching the student budget with the Estimated Family

Contribution (EFC), which is calculated from the FAFSA information. The office attempts to award students as much of the difference (unmet need) as possible. From time to time, the office will establish an aid package for a student and later the budget or EFC changes or aid will come in from some unexpected source (such as a scholar-ship). This may result in what is called an "overaward." If no adjustment to the aid package occurs and the financial aid is actually paid, this is called an "overpayment." State and federal regulation require adjustment or repayment of overawards and overpayments for many programs. If the student receives notification of scholarship or other third-party payment after receipt of the award notice, please notify the office. The financial assistance office may be able to correct an overaward before it becomes an overpayment. If an overpayment does occur, the financial assistance office will notify the Student Accounts Office and the student will be required to work with them on a repayment.

## Refunds and Return of Title IV Funds

Students should be aware that if they withdraw from the University after having received financial assistance, they may have to repay a portion of that assistance which would be returned to the appropriate program. Students who received Federal Stafford Loans should also know that the Student Financial Assistance Office is required to notify lenders of student withdrawals.

## Refunds

Financial assistance recipients planning to withdraw from UCF first should read the 'Withdrawal Policy' in the "Academic Policies and Procedures" section of this Undergraduate Catalog. If the student is due a refund according to this policy, the financial assistance program(s) from which the student received assistance will first be reimbursed. Any remaining balance after refunding all appropriate assistance programs will be refunded to the student. In no case will the amount refunded to the assistance program exceed the amount disbursed.

## Return of Title IV Funds

Effective the Fall 2000 Semester, the University of Central Florida adopted a new refund policy that conforms to the updated version (Section 668.22) of the "Higher Education Amendments of 1998." Students who have received (or who are eligible to receive) funding of federal assistance under Title IV of the above act and who withdraw from all their courses prior to the $60 \%$ point in time of the semester are subject to a recalculation of their awards based on the amount of aid earned. The amount of aid earned is determined by the number of days the student was enrolled prior to withdrawing from classes. Any assistance the student received in excess of the earned amount must be repaid to the University. The University will return the funds to the appropriate source. For example, a student received $\$ 1000$ in federal funding and withdrew at the $30 \%$ point in the semester. The amount of earned aid would be $30 \%$ of $\$ 1000$, or $\$ 300$. The amount of unearned aid, $\$ 700$, would have to be returned to the appropriated funding source. The student is required to pay the University any unearned aid received.

A student who owes a financial assistance repayment will not be allowed to receive further financial aid until the funds are returned in full to the University. In addition, academic transcripts will be
withheld until repayment is complete. Students should schedule an appointment with or come to the Student Financial Assistance Office prior to withdrawing from classes to confirm the consequences of that withdrawal. The appointment telephone number is 407-823-5285.

## Conditions and Requirements for Receiving Assistance

The student must enroll for a minimum of six semester hours. Twelve hours are required for some programs including FSAG and most Scholarships. Pell Grants, however, may be paid on less than six hours of enrollment;

- The student must maintain UCF's standards for Satisfactory Academic Progress (following section);
- The student agrees to inform the office of any additional assistance received beyond that listed on the award letter. Any subsequent awards or income may necessitate a revision of the financial assistance award;

The student must not be in default on any educational loan or owe repayment on a grant at this or any other institution;

The student must provide all information requested for the completion of his or her file. If selected, verification must be completed prior to the receipt of any funds or certification of a Federal Stafford Loan;

The student must supply a financial aid transcript if he or she is a mid-year transfer student who will not attend until the Spring or Summer Semester/Term. This financial aid transcript must be from every post-secondary school attended during that school year whether or not the student received any financial assistance;

- The student must notify the Student Financial Assistance Office of any changes in housing status or corrections to the financial or household information from that listed on the student's assistance application;
- The student must reapply yearly for financial assistance;and

The student's Financial Aid Package may not exceed the cost of attendance as specified previously in this section under "School Costs."

## Satisfactory Academic Progress Policy

Federal regulations require the University to establish standards of Satisfactory Academic Progress as a general eligibility requirement for financial assistance. A student must maintain Satisfactory Academic Progress in a course of study regardless of whether the student was a previous recipient of financial aid. Students who are unclear about these policies should schedule an appointment.

The factors required to measure satisfactory progress are as follows:
Maintain a minimum overall GPA of 2.0 if Junior level or higher
Complete the required hours by the end of the Spring semester of each academic year
Graduate within the time limit assigned by this policy

## Grade Point Average

GPA is monitored at the end of each semester/term.

## Undergraduate

a. GPA

## Freshman/Sophomore

No minimum GPA is required as long as the student is not disqualified or excluded by the Registrar's Office

## Junior/Senior/Second Degree/Certification

A minimum overall GPA of 2.0 is required and the student must not be disqualified or excluded by the Registrar's Office.

## b. Disqualified/Excluded

When students are disqualified or excluded by the Registrar's Office, they will be placed automatically on "Financial Aid Cancellation." Upon readmission to UCF, students must appeal separately to the Student Financial Assistance Office to be considered for Financial Aid reinstatement.

## Hours Completed

At the end of the Spring semester of each academic year, hours completed are monitored for the previous three semesters/terms (Summer, Fall, and Spring). Students are required to complete a specified number of credits as determined by their enrollment status.

## Undergraduate, Post-Baccalaureate, and Other Non-Degree

## Attempted Hours Required to Complete

| Full time | 12 or more | 10 |
| :--- | :--- | :--- |
| $\mathbf{3 / 4}$ time | $9,10,11$ | 8 |
| $\mathbf{1 / 2}$ time | $6,7,8$ | 5 |

Successful completion of a class is defined as earning a grade of A, B, C, D or S. Unsuccessful completion is defined as earning a grade of F, W, I, WP, WF, X, N, U, WM, WH, or NC.

## Time Limit

When a student meets or exceeds the number of allowed Overall Attempted Hours, the student will be placed on "Financial Aid Cancellation"at the end of the semester/term (even if financial aid was not received during previous terms).

## Classification Time Frame Allowed for Completing Degree

Undergraduate 180 Overall Attempted Hours (including transferred hours)
Second Degree 60 Attempted Hours (including all Post-Bac hours)
Master's $\quad 70$ Attempted Hours (including all Post-Bac hours)
Specialist $\quad 100$ Attempted Hours (including all Graduate and Post-Bac hours)
Doctorate $\quad 120$ Attempted Hours (including all Graduate and Post-Bac hours)

## Financial Aid Probation

If students are placed on "Financial Aid Probation," they must complete the following requirements for the term in which they are on probation. Failure to do so will result in "Financial Aid Cancellation" at the end of the probationary term. Students on financial aid probation must complete the minimum required hours as defined above in "Hours Completed." for that semester/term, with a minimum semester/term GPA of 2.0.

## Procedure for Appeals

If students do not meet the above standards, they will be placed on "Financial Aid Cancellation." When students are on Financial AidCancellation, they are not eligible for aid, nor a deferment, until reinstated through the appeal process. Any student with extenuating circumstances who is placed on Cancellation may appeal to the Financial Aid Review Committee. To appeal, the student must:

1. Complete the Satisfactory Academic Progress Appeal Form; and
2. Submit acceptable documentation supporting the extenuating circumstances.

After a thorough evaluation of the written request and all documentation, the Financial Aid Review Committee will notify the student of its decision in writing. Aid remains cancelled unless the student receives written notification of reinstatement.

## Re-establishing Eligibility

Students may re-establish financial aid eligibility by enrolling, on their own, for at least six hours at UCF or any other accredited institution and complete required hours (see chart above) with a minimum semester/term GPA of 2.0. Students will need to appeal at the end of that term for reinstatement of aid for the following term.

Note: This option is not available to students who have been cancelled for reaching their time limit or will reach their time limit by the end of the following term. Also, juniors and seniors must have a minimum overall GPA of 2.0.

## UCF Undergrad to Grad Fellowship

This merit-based award is for first-year graduate students who will complete their undergraduate degrees at UCF in the previous year and who will continue in UCF graduate programs, either masters or doctoral, in the following academic year. For more graduate financial aid information, please see the UCF Graduate Catalog or online at www.ucf.edu.

## Student Rights and Responsibilities

Students have the right to full information about the financial aid programs available at UCF, application procedures and deadlines, and the criteria used to determine a financial package.

Students have the right to appeal decisions made by the Student Financial Assistance Office.
Students have the right to equitable treatment of their financial assistance applications. Although each student's case is analyzed individually, eligibility standards are applied
uniformly without regard to race, gender, religion, creed, national origin, or physical handicap.
All students' records are confidential.
It is the student's responsibility to review and understand all information and instructions, meet all deadlines, and provide all information and documentation accurately. Errors and omissions can cause delays and prevent students from receiving assistance. Misrepresentation is a violation of the law.

It is the student's responsibility to periodically check their financial assistance progress on POLARIS (Personal On-Line Access Restricted Information Systems) at https://polaris.ucf.edu for application status, Short-Term Loan status, deferment status, disbursement information, and "Fee Invoice/Class Schedule." Disbursement information also is available on student's Z-TEL line (linked to student's UCF Smart Card).

## Tuition and Fees

## Schedule of Fees

A student's basic expenses at the University will be for registration and course related fees, room and board, textbooks, and miscellaneous items. Required fees are established by the Board of Regents and the Florida State Legislature and are subject to change without notice. Fees are affected by residency status.

Students are encouraged to obtain a "Fee Invoice/Schedule" to confirm fees and course registration. Fee Invoices are not mailed. Fee Invoices are available on the POLARIS web system and kiosks, from student's college advising offices, and in the Registrar's Office. Students must obtain a new "Fee Invoice/ Schedule" after making any course changes or schedule adjustments.

All University fees must be paid according to published dates and no later than the end of the Add/Drop and Late Registration period. Fees not paid by the payment deadline date for each
semester/term will result in late fees and could result in the cancellation of all classes. The following schedule applies to all UCF students:

Application fee. (\$20.00) Must be paid by U.S. check or money order (required with all applications for admission to the University and not refundable)

Registration Fees per semester or term are shown below for main campus, area centers, and continuing education courses. Zero hour registration students are assessed one credit hour at the Florida Resident Tuition rate at the course level for which the student is registered.

2000-2001 TUITION AND FEE SCHEDULE (Fall 2000, Spring 2001, and Summer 2001) (2001-2002 fees not available at time of publication)

## Florida Resident

Category Graduate

Non-Florida Resident
Undergraduate Graduate Undergraduate
(0000-4999) (5000-7999) (0000-4999)
(5000-7999)

## Fees per Credit Hour:

Matriculation*
$\$ 51.79$
\$124.61
\$ 51.79
\$124.61
Non-Resident Fee
0.00
0.00
232.95
360.73
2.58
6.23
2.58 6.23
11.64
18.03

Non-Res Financial Aid Fee
0.00
0.00
2.32
2.32
2.32
2.44
2.44
2.44

Capital Improvement Fee
UCF Activity \& Service Fee
UCF Athletic Fee

Total per Hour
*Repeat Course Surcharge: Beginning with the Fall semester, 1997, a student enrolled in the same undergraduate college credit course more than twice shall be assessed an additional $\$ 186.26$ per credit hour charge.

## Other Fees: Resident and Non-Resident Students

UCF Health Fee (per semester-main campus-course offerings)
\$ 53.00
UCF Health Fee (summer term-main campus-course offerings)
39.75

UCF Materials \& Supplies Fee (approved courses only-varies per course)
Varies

## Returned Check Fees:

Check amounts over $\$ 50.00$ and less than $\$ 300.00$ 30.00

Check amounts over $\$ 300.00$ 40.00*

* or 5\%, whichever is greater

Room and Board (Based on accommodations and meal plan selected)
Residence Hall Rooms (per semester)
\$1500-1675
Board plans (approx.): contact Food Services 407-823-2651
\$825-950
Charge for late housing payment $\$ 50.00$
Books and supplies (estimated) per semester
\$400.00
Vehicle Registration (required of everyone operating a motor-powered vehicle on campus)
per calendar year for all students. Student's decal fee $\$ 90.00$

## Student Health Fee

Mandatory fee assessed to all students except those enrolled at area campuses, (UCF-Brevard, UCF-Daytona Beach, Professional Development Center at South Orlando) and exclusively in Continuing Education courses.

Transcripts - First two provided at no charge. Each additional copy $\$ 5.00$.
Note: All payments accepted after class cancellation notices are mailed, approximately the third week of classes,
must be cash, cashier's check, or money order. Personal checks will not be accepted.

## Late Registration Fee and

## Late Payment Fee Appeals

Students who desire to appeal a Late Registration, and/or Late Payment, may make their appeal to the Fee Appeals Committee by initiating a student petition (Form 41-561). This form can be obtained from Student Development and Enrollment Services, University Cashier, or the Student Accounts Section of Finance and Accounting. Students must submit their petitions to Student Accounts (MH 107) and may appear before the Committee (not mandatory).

## Past-Due Accounts

All financial obligations to the University must be met. Failure to meet obligations can result in the withholding and denial of registration and readmission to the University. The services of a professional collection agency and recourse to the courts may also
be invoked if deemed necessary. All costs of collection, including attorney's fees, are borne by the debtor.

## Payment Procedures

Payment may be made in the Cashier's Office, MH 108. Hours are Monday and Thursday, 8:30 a.m. to 7:00 p.m.; Tuesday, Wednesday, and Friday, 8:30 a.m. to 4:00 p.m.Credit cards are not accepted. Payments (NO CASH) may be placed in the Cashier's night depository on the north (pond) side of Millican Hall. Include social security number on check or money order.

Mailed payments (check or money order only) must be postmarked no later than the published payment deadline in the "Academic Calendar" of this Undergraduate Catalog to be considered on time and avoid the late fee. Address payment to: Cashier's Office, University of Central Florida, P.O. Box 620000, Orlando, FL 32891-8449.

Do not assume your registration will be canceled if you fail to pay fees or attend classes. Tuition deferrals will prevent class
cancellation for non-payment. Payment guidelines for off-campus registration are contained on the off-campus registration form.

## Refund of Fees

A refund of fees will be made under the conditions noted below. A written appeal for a refund or other appeal action must be submitted to the University within six months of the close of the semester/term to which the refund or other appeal action is applicable. Any debts to the University will be deducted from the refund, up to the full amount.

## A full refund is due when:

1. Any class is dropped before the end of the Add/Drop period;
2. Cancellation of the course by the University; or
3. Student is denied admission to an offered course.

Partial refund due to complete withdrawal from the University: for theFall and Spring semesters, a $25 \%$ refund of tuition is available for students who completely withdraw from the University by the end of the fourth week of classes. For the Summer term, complete withdrawal from an individual session must occur before the first quarter of classes has elapsed for that session. Each session in the Summer term is considered individually for partial refund purposes. The exact withdrawal deadline dates for each semester/term may be obtained from the Student Accounts Office.

Refunds for exceptional circumstances at any time upon withdrawal from one or more courses: up to $100 \%$ of tuition and registration fees due to circumstances determined by the University to be exceptional, including but not limited to sickness, death, involuntary call to military service, or administrative errors created by the University.

## Tuition Waivers

## Tuition Fee Waivers for State of Florida Employees

State employees, faculty, and staff who utilize a tuition fee waiver for course work (up to six credit hours) without payment of the registration fees must register after the published registration time in the "Academic Calendar" of this Undergraduate Catalog. Employees who register prior to the prescribed time and date will have an invalid fee waiver, and will be liable for all applicable fees on courses enrolled.

It is the responsibility of the employee to register only on a space-available basis during the prescribed time. In addition, the tuition fee waiver cannot be used for courses which require increased costs. These courses include, but are not limited to: courses offered through the Center for Continuing Education, independent study, supervised research, supervised teaching lab, thesis hours, dissertation, internships, co-ops, practicums; or applied, individualized instruction in music, art, or dance, etc. State employees utilizing employee tuition waivers to enroll in graduate courses are liable for federal income tax and FICA tax on the value of the waiver for these courses.

## Tuition Fees for Senior Citizens

Persons 60 years of age or older who meet Florida residency requirements may register to audit classes on a space-available basis without payment of tuition and application fees.Registration is on a space-available basis; see the current "Academic Calendar" of this Undergraduate Catalog or Schedule Web Guide for dates and times. The tuition fee waiver cannot be used for courses which require increased costs (such as thesis, dissertation, directed individual study). A "Florida Residency" Affidavit is required to establish Florida residency. A completed "Student Health History" must be filed prior to registration. Inquiries should be directed to the Registrar's Office, MH 161.

## State Tuition Exempt Program (STEP)

Eligible members of the active Florida National Guard may receive a waiver of $50 \%$ of tuition and material and supply fees.Registration is on a space-available basis on the last day of Registration at the time specified in the "Academic Calendar" of this Undergraduate Catalog. STEP students should present FNG form 621-5-2 to the Student Accounts Office (MH 107) prior to the fee payment deadline.

## Florida Prepaid College Plan

For any student enrolled who has a Florida Prepaid College Plan, the University will automatically defer the portion of the tuition covered under the plan. The plan does not cover the local UCF fees that include the athletic fee, activity and service fee, health fee, campus card fee and material and supply fee.

If you do not desire to utilize the Florida Prepaid College Plan, please notify the Student Accounts Office (MH 107) by the fee payment deadline. Note: these fees may change each academic year.

## Florida Residency for Tuition Purposes

At University of Central Florida, three offices are responsible for the review of residency for tuition purposes under Florida Statute 240.1201 and Board of Regents chapter 6C-7.005. The offices of Undergraduate Admissions and Graduate Studies determine residency for all first-time-on-campus students; the Registrar's Office reviews student requests for changes in residency once the student is enrolled. A first-time-on-campus student will be classified according to the information he or she includes on the application for admission, providing that no other information is available that calls into question the information contained on the application.

To qualify as a Florida resident for tuition purposes in accordance with State regulations, the student must be a United States citizen, resident alien, parolee, Cuban national, Vietnamese refugee, or other refugee or asylee so designated by the United States Immigration and Naturalization Service,

And
Have established a legal residence in this state and maintained that legal residence for 12 months immediately prior to the term in which they are seeking Florida resident classification. The student's residence in Florida must be as a bona fide domiciliary rather than for the purpose of maintaining a mere temporary residence or abode incidental to enrollment in an institution of higher education, and should be demonstrated as indicated below (for dependent students, as defined by Internal Revenue Service regulations, a parent or guardian must qualify),

## And

Submit the following documentation (or in the case of a dependent student, the parent must submit documentation) prior to the last day of registration for the term for which resident status is sought:

1. Documentation establishing legal residence in Florida (this document must be dated at least one year prior to the first day of classes of the term for which resident status is sought). The following documents will be considered in determining legal residence:
a. Declaration of Domicile;
b. Proof of purchase of a home in Florida in which the student resides;
c. Proof that the student has maintained residence in the state for the preceding year (e.g., rent receipts, employment records).
2. Documentation establishing bona fide domicile in Florida which is not temporary or merely
incidental to enrollment in a Florida institution of higher education. The following documents will be considered evidence of domicile even though no one of these criteria, if taken alone, will be considered as conclusive evidence of domicile:
a. Declaration of Domicile;
b. Florida voter registration;
c. Florida vehicle registration;
d. Florida driver license;
e. Proof of real property ownership in Florida (e.g., deed, tax receipts);
f. Verification of permanent employment in Florida by the employer, employment records, or other employment-related documentation (e.g., W-2 paycheck receipts), other than for employment normally provided on a temporary basis to students or other temporary employment. The document must show 12 consecutive months of Florida employment prior to the first day of classes of the term for which the student requests Florida residency;
g. Proof of membership in or affiliation with community or state organizations or significant connections to the State;
h. Proof of continuous presence in Florida during periods when not enrolled as a student;
i. Proof of former domicile in Florida and maintenance of significant connections while absent;
j. Proof of reliance upon Florida sources of support;
k. Proof of domicile in Florida of family;
3. Proof of admission to a licensed practicing profession in Florida;
m . Any other factors peculiar to the individual that tend to establish the necessary intent to make Florida a permanent home and that the individual is a bonafide Florida resident, including the age and general circumstances of the individual;
n. Proof of graduation from a high school located in Florida.
4. No contrary evidence establishing residence elsewhere;
5. Documentation of dependent/independent status (notarized copy of most recent IRS tax return)

## Or

Be married to a person who has been a legal resident of the State of Florida for the required 12-month period and relinquish legal ties to any other state,

## Or

Be a member of the Armed Forces on active duty stationed in Florida, or a spouse or dependent,

## Or

Be a member of the full-time instructional or administrative staff of a state public school, community college, or university in Florida, a spouse or dependent,

## Or

Be a dependent and have lived five years with an adult relative, who has established legal residence in

Florida,

## Or

Be a person who was enrolled as a Florida resident for tuition purposes at a Florida institution of higher education, but who abandoned Florida residency and then re-enrolled in Florida with 12 months of the abandonment,

## Or

Be a full-time Latin American or Caribbean student who receives scholarships from the federal or state government,

## Or

Be a United States citizen living on the Isthmus of Panama who has completed 12 consecutive months of college work at the Florida State University Panama Canal Branch, or a spouse or dependent,

## Or

Be a graduate student of the Southern Regional Education Board's Academic Common Market attending Florida's state universities,

## Or

Be a full-time employee of a state agency or political subdivision of the state when the student fees are paid by the state agency or political subdivision for the purpose of job-related law enforcement or corrections training,

## Or

Be a U.S. Citizen who is a McKnight Doctoral Fellowship recipient,

## Or

Be a qualified beneficiary under the Florida Pre-paid Post-secondary Expense Program per s.240.551(7)(a),

## Or

Be an active duty member of the Canadian military residing or stationed in this state under the North American Air Defense (NORAD) agreement, or a spouse or dependent,

## And

Submit a statement as to the length of residence in Florida and their residency qualifications under the above criteria. Students requesting Florida residency for tuition purposes shall apply to the appropriate admissions office if they have not yet enrolled, or to the Registrar's Office if they already are enrolled.

For information regarding residency appeal and reclassification, see 'Residency Reclassification' within the "Registrar's Office" section of this Undergraduate Catalog.
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REGISTRAR'S OFFICE

University Registrar: Dennis J. Dulniak; MH 161; 407-823-3100; Fax 407-823-5652; email: registrar@mail.ucf.edu; website: http://registrar.ucf.edu

The Registrar's Office provides enrollment, graduation, and information services to students, alumni, and the University community.

## Add/Drop Policy

Add/Drop is the period following their initial registration when students may make class schedule adjustments through the first three to five days of each semester/term (as listed in the "Academic Calendar" of this Undergraduate Catalog). Add/Drop may be done using the POLARIS system (https://polaris.ucf.edu), by telephone (407-823-2527 or 1-877-823-2527), and in the college advising offices. After the Add/Drop period, no course may be added. Courses meeting for the first time after the end of Add/Drop may be dropped the next business day in the Registrar's Office, MH 161. For withdrawal after the Add/Drop period, the "Withdrawal Policy" of this Undergraduate Catalog applies.

## Address Changes

The student's address is obtained from the "Application for Admission or Readmission." It is the students' responsibility to make appropriate changes to the address. "Address Change" forms may be obtained from the Registrar's website, college advising office, or from the Registrar's Office. Address changes can be made in the Registrar's Office, on POLARIS, or at any of the kiosks located on campus. Address changes also can be made by writing the Registrar's Office, P.O. Box 160114, Orlando, FL 32816-0114 or fax to 407-648-5022. Written requests must be signed and the student number provided.

## Attendance, Absences, or Unsatisfactory Work

Under University policy, students are not authorized to attend class unless they are on the class roll, or have been approved to audit and have paid audit fees. Students are responsible for satisfying the entire range of academic objectives as defined by the course instructor and ensuring that their class work and attendance are satisfactory. Students should understand that attendance policies and procedures vary among instructors and academic units, and they must observe any special attendance regulations stipulated by their college, school, department, program, or instructor. Reasons for acceptable absences may include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, professional conferences), military obligations, severe weather conditions, and religious holidays.

Students also should be excused for participation in official University-sponsored activities, such as music performances, athletic competition, or debate. Students chosen for such events, including intercollegiate athletics, band, choir, and academically related programs, shall be listed on a "Program Verification" form. Program Directors shall provide each student with a copy of this form. It is the student's responsibility to present a copy of this form to the faculty member(s) responsible for the class from which the student will be absent. This verification is to be provided prior to the class period when possible and no later than the first class following the event. A copy of the form listing students selected to represent the University and signed by the Program Director shall be filed with the Office of Student Rights and Responsibilities. If further verification is needed, contact the Office of Student Rights and Responsibilities (MH 282; 407-823-2851) or for athletic events only, Academic Services for Student-Athletes at 407-823-3761.

Absences from classes for court-imposed legal obligations (e.g., jury duty and subpoenas) must be excused. The student may offer other sound reasons. When absences threaten a student's satisfactory completion of a course, the instructor may report the absence to the appropriate Dean of the student's college/school and may choose to call upon the college/school office to request additional information and insight into the significance of or reason for the absences.

## Audit Registration

Audit students are those who desire to attend class(es) without receiving academic credit. Regular tuition and fees are assessed for audit registration. See schedule of fees for information. Audit registration is on a space-available basis at the prescribed time of Registration, or at any time during Add/Drop when Late Registration fees will apply. Audit requests for students who register prior to this time will be denied. Students may not change to audit status after Add/Drop, but must remain in the course or withdraw through normal withdrawal procedures. New students must be accepted for admission. Senior citizens, see "Senior Citizen Audit" in this chapter for details. Audit forms,
available on the Registrar's website and in the Registrar's and college advising offices, must be signed by the instructor and presented to the Registrar's Office at the time of registration.

## Change of Major

The University assigns the major that the student indicated on the "Application for Admission or Readmission." It is the student's responsibility to make appropriate major changes. Students changing to a major in the colleges of Arts \& Sciences, Business Administration, and Health \& Public Affairs will have their catalog year changed to the current year. Students in undecided categories are not affected by the catalog year. Major change forms may be obtained from the Registrar's website. Major changes can be made in the Registrar's or college advising offices or by mail. Written changes must include the student's identification number and signature.

## Enrollment Certifications

To confirm enrollment in the University, students should obtain the form from the Registrar's website or the Registrar's Office (MH 161). Picture identification is required. Enrollment certifications for a current term are available after Add/Drop.

## Terms and Credit hours

The University of Central Florida academic schedule consists of two semesters (Fall and Spring), and the Summer term. A semester hour of credit or credit hour represents one class hour of work (or two or more laboratory hours of work) per week for a semester. Classes may be offered for a six-week or nine-week session during the Summer term. During this shortened term, two class hours of work (or four or more laboratory hours of work) per week are required to represent a semester hour of credit.

Undergraduate Enrollment Status
Full Time
Half Time
Less Than Half Time

## Credit hours

12 or more
6-11
less than 6

Note: Graduate and post-baccalaureate students please refer to the Graduate Catalog for enrollment status policies.

## Family Educational Rights and Privacy Act (FERPA)

The procedures for protecting the confidentiality of student records are based on state regulations and the federal Family Educational Rights and Privacy Act of 1974. FERPA affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 30 days of the day the University receives a written request for access. Students should submit to the University Registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they desire to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed;
2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

The student may ask the University to amend a record that he or she believes is inaccurate or misleading. The student should write the University official responsible for the record, clearly identify the part of the record to be changed, and specify why the current record is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing;
3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest
if the official needs to review an education record in order to fulfill his or her professional responsibility;
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by a State University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue, SW

FERPA authorizes the University to classify certain information concerning students as "directory information," which means that it may be released to anyone upon request. In accordance with Florida Statutes Section 228.093, the University is required to release student directory information to independent vendors upon request. Directory information at UCF includes name, current mailing address, telephone number (if not unlisted), e-mail address, date of birth, major field of study, dates of attendance, enrollment status, degrees and awards received, participation in officially registered activities and sports, and athletes' height and weight.

Other information will be released only with the prior written permission of the student. The University extends to students the opportunity to withhold any or all information, including "directory information." To do this, students must complete the appropriate form in the Registrar's Office (MH 161), requesting that this information be withheld. The Golden Rule outlines the University procedures for confidentiality.

## Good Standing

Good standing indicates only that the student is meeting the minimum academic standard for retention by the University (minimum semester/term GPA, 2.0). To meet graduation requirements, however, the student must have a minimum UCF GPA of 2.0.

## Grade Reports

Grades are available on-line through TouchTone 407-823-2527 or toll-free 1-877-823-2527, from POLARIS at https://polaris.ucf.edu, or from the UCF kiosks where hard copy grade reports may be available via the "Print" browser function.

## Graduation Rate Disclosure

The completion or graduation rate is the rate at which full-time, certificate-seeking or degree-seeking undergraduate students who are enrolling for the first time at the institution, and who have not previously enrolled at any other institution of higher education, either complete or graduate from their programs. The freshman retention rate for Fall 1999 students is 78.1 percent. The information is public and available for review in the UCF Library.

## Higher Education Act

Lists, descriptions, and sources of information required for disclosure under the Higher Education Act may be obtained from the Registrar's Office (MH 161) or from
http://pegasus.cc.ucf.edu/~enrsrvc/registrar/HEA.html.

## Holds

Holds may be placed on a student's records, transcripts, grades, diplomas or registration due to financial or other obligations to the University. Satisfaction and clearance of the hold is required before a release can be given. Students may check for holds on the POLARIS system at https://polaris.ucf.edu. To obtain an immediate release for financial holds, payment to the Cashier's Office must be made either in cash, cashier's check, or money order. Credit cards currently are not accepted.

## Name Changes

"Official Name Change" forms, available in the Registrar's Office (MH 161) or the Registrar's website, must be submitted to change the legal name maintained on the student record. Obtain a notary public seal and attach copies of legal name change documents (e.g., marriage certificate, divorce decree, etc.). Submit the com-pleted form and all documents to the Registrar's Office (MH 161).

## Registration

During each academic semester/term, registration is held for all new, currently enrolled, degree-seeking and non-degree seeking students for the following semester/term. Registration sessions consist of Early Registration, Registration (held immediately before the start of the semester/term), and Late Registration (held during the first week of classes for each semester/term). Spring Early Registration is held following midterm for the Fall Semester. Summer and Fall Early Registrations are held concurrently immediately following the mid term of the Spring semester. Registration is available over the web using the POLARIS system, (https://polaris.ucf.edu), by telephone (407-823-2527 or 877-823-2527), and in the college advising offices. The dates and times for each registration period are included in the "Academic Calendar" within both this Undergraduate Catalog and the Schedule Web Guide that is published for the Summer term, Fall semester, and Spring semester. Class listings are available only online at http://ClassSchedule.ucf.edu.

## Residency Reclassification

The offices of Undergraduate Admissions and Graduate Studies determine residency for tuition purposes for all newly admitted students. Once the student is enrolled, the Registrar's Office may review student requests for changes in residency. To request a residency review, the student must submit either a written and signed request or a completed "Residency Reclassification" request form to the Registrar's Office. This form is available either at the Registrar's Office (MH 161) or online at http://registrar.ucf.edu. The form or written request must be accompanied by all documents that support the student's Florida residency claim. The following submission deadlines apply:

First-term students must submit the request and all documents by the end of Add/Drop.
Continuing students who believe that they qualify for Florida residency must submit the request and all documents prior to the first day of classes for the term in which Florida residency is requested.

Residency reviews are subject to State Board of Education rule 6C-7.005 requirements as outlined in 'Florida Residency for Tuition Purposes' in the "Student Financial Assistance Office" section of this Undergraduate Catalog.

## Schedule Web Guide

The Schedule Web Guide is published twice each year: the Summer/Fall edition and the Spring edition. The Schedule Web Guide provides the "Academic Calendar" and describes the policies and procedures governing registration each term. The Schedule Web Guide is distributed through the colleges, schools, and departments, by the Registrar's Office, and is available on the Registrar's web page at http://registrar.ucf.edu.

## Senior Citizen Audit

Senior Citizens (60 years of age or older) who have been residents of the State of Florida for at least one year as of the first day of classes, may enroll tuition free as audit students (i.e., no academic credit) on a space-available basis. Forms to be completed include the "Residency Affidavit," the "Student Health History," and the "Special Non-Degree Registration Form." These forms are available in the Registrar's Office (MH 161) or at the Registrar's web site: http://registrar.ucf.edu. It is necessary to complete the required forms during the last hours of registration as noted in the Schedule Web Guide. Direct student expenses after the completion of registration include the campus ID card, automobile parking decal and textbooks.

## State Employee and State Tuition Exemption Program (STEP) (National Guard) Registration

State of Florida employees and State Tuition Exemption Program (STEP-National Guard) students register during Registration. These registrations are on a space-available basis only. State employees are required to submit the "Employee Tuition Fee Waiver Form" which may be obtained from Human Resources. Registration before the time specified in the "Academic Calendar" or Schedule Web Guide will result in the student being assessed regular fees. The tuition fee waiver cannot be used for courses that require increased costs, including, but not limited to courses offered through the Center for Continuing Education, independent study, supervised research, supervised teaching labs, thesis hours, dissertation, internships, co-ops, practicums, or applied, individualized instruction in Music, Art, or Dance. Eligible members of the active Florida National Guard may receive a waiver of $50 \%$ of tuition and material and supply fees. Registration is on a space-available basis during the last day of Registration at the time specified in the "Academic Calendar" of the Schedule Web Guide. STEP students must present a "Certification" letter to the Student Accounts Office (MH 112) to receive waiver of eligible fees.

## State University System (SUS) Florida Transient Students

An SUS Transient Student is a student in good standing who is seeking a degree from one of the other public Florida universities and desires to take courses with UCF. Students must complete the "SUS Transient Application Form" which is available at all SUS institutions. No application fee is required. The "SUS Transient Application Form" must be completed each semester/term and should be mailed or delivered to the Registrar's Office, by the application deadline noted in the "Academic Calendar" of the appropriate Schedule Web Guide. Students should visit the Registrar's Office website at http://registrar.ucf.edu or contact the Registrar's Office for registration information at 407-823-3100.

## UCF Students Attending Another State University System of Florida Institution

UCF students who desire to attend another SUS institution as a Transient Student may secure the "SUS Transient Application Form" from their college advising office or from the Registrar's Office. The prior permission of the department, school, and college advising office is required to ensure that the courses attempted at another institution will transfer and meet the UCF Degree/General Education Program requirements.

## UCF Students Attending a Non-SUS Institution

Degree-seeking UCF students who desire to enroll at a non-SUS post-secondary institution as a

Transient Student must complete the "Transient Approval Form." This form is available from the school or college advising offices. The prior permission of the department and college advising office is required to ensure that the courses attempted at another institution will transfer and meet the UCF Degree/General Education Program requirements.

## Student Records

Student records submitted become the property of the University and cannot be returned to the student or released to a third party. Copies of student records will be released only upon receipt of a written request signed by the student. Student records are stored in paper form or are digitally scanned. Once the student has been absent from the University for three academic years, all records are transferred to optical disk storage and the paper copies destroyed.

## Transcript Requests

Requests for official transcripts are made through the Registrar's Office (in person, by mail, or by fax). "Transcript Request Forms" are also available on the Registrar's website. A student's academic record can be released only upon written authorization signed by the student. Telephone and e-mail requests are not accepted. Transcripts cannot be released if the student is on hold due to a financial obligation to the University. Transcript requests must include the student's signature, full name, identification number, and the name and complete address of the person(s) or organizations to whom transcripts are to be sent. If final grades or degree statement are needed, indicate that the transcript request is to be held until all requested data are posted.

The first two transcripts are provided at no cost. A $\$ 5$ per transcript charge will be assessed for each subsequent transcript request. Payment for official transcripts is required at the time of request and may be satisfied by cash, check (made payable to UCF), money order, or UCF Card. Requests received by mail must be accompanied by a check or money order. Cash payments can be accepted only by the Cashier's Office during that office's regular business hours. The UCF Card payment option is available only at the Orlando campus and must be made in person at the Registrar's Office (MH 161). Mail written requests for transcripts to: Registrar's Office, Attn: Transcripts, P. O. Box 160114, Orlando, FL 32816-0114. For Fax request information and payment procedures, refer to http://registrar.ucf.edu/ or call 407-823-3100. Transcripts may be sent electronically to other Florida public institutions.

Unofficial transcripts are available only from the kiosk outside the Registrar's Office (MH 161) with grade reports available from all kiosks and POLARIS at https://polaris.ucf.edu.

## Withdrawal From Classes

Withdrawal begins after Late Registration and Add/Drop ends. Students may withdraw without penalty until the date noted in the "Academic Calendar" of this Undergraduate Catalog or Schedule Web Guide. Students may withdraw on POLARIS, in person at the Registrar's Office, the college advising offices, or the area campus records offices. Withdrawals also may be made by mail or by fax at 407-823-5652, and must include the student's signature and identification number. Mailed requests must be postmarked by the withdrawal deadline and faxed requests must be received by $5: 00 \mathrm{p} . \mathrm{m}$. on the last day to withdraw. Students who desire to withdraw in person must sign their request and show photo identification. The official date of withdrawal is the date the withdrawal is received by the University. Requests received by mail are processed using the postmark as the official date of withdrawal. For a complete description of the University's Withdrawal Policy, see that section of the "Academic Regulations and Procedures" chapter of this Undergraduate Catalog.
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# (S) Admissions ond Catalogs <br> <br> Academic Advising 

 <br> <br> Academic Advising}

## Responsibilities

Academic advising at the University of Central Florida integrates general curricular information, academic major exploration, registration, course scheduling, faculty contact, academic skills development, and graduation planning. Academic advising is based upon a relationship of trust and shared responsibility between the student and the advisor. It recognizes students' individuality and provides them academic support while connecting them to the University community in several ways:

Provide guidance for academic, career, and personal goals;
Provide information on the university's majors and other academic programs;
Assess academic strengths, interests, and progress toward graduation;
Provide assistance with course schedule planning and registration;
Connect students to other university resources;
Assist students during their transition to and within UCF.

Although academic advisors provide assistance, it is the student's responsibility to know the university policies, procedures, requirements, and seek out assistance when needed. There are a variety of academic advising systems available at UCF in each of the colleges, schools, and the Division of Student Development and Enrollment Services.

## Freshmen (First Time in College-FTIC)

Every incoming Freshman is assigned a professional first year academic advisor in one of the five offices listed below that comprise the unit of Academic Support and Advising Programs (ASAP) and the office of Multicultural Academic and Support Services (MASS). These advisors also collaborate
with the University's colleges and schools and link students to advisors in various academic programs. The assignment of a first year advising office will be based on the specialized services of each program and the student's particular needs. Please know that although you have been assigned to an advisor in one of the offices, you are not limited to seeking help there. Contact the assigned advising office if you need to change advising offices.

In order to assist students, the first year advising offices require new students to have a mandatory contact with an advisor during their first semester. Academic advising is one of the most important services provided at UCF and can impact a student's successful progression to graduation. ASAP and MASS are committed to helping students succeed.

New FTIC Students can expect to:

1. Attend a mandatory orientation that will provide:
a. Initial academic advising and preparation for the first semester, including schedule planning and registration
b. An assessment of high school grades, entrance and placement test scores
c. An awareness of expectations for success at UCF
d. Information about key academic policies and important deadlines
2. Connect to their first year advising office during the first semester according to the following designated priority order:
a. Academic Services for Student-Athletes--for scholarship student athletes (WDSC 1233)
b. Student Academic Resource Center--for participants in the College Achievement Program (CAP) or Pegasus Success Program (PH 113)
c. Multicultural Academic Support Services (MASS)--for students of color (African American, Hispanic, Asian, Native American, or other) and students in the SOAR program (MH 145)
d. Academic Exploration Program--for students who have not declared a program of study (PH 116)
e. First Year Advising and Information Services--for students with declared majors not covered by any of the previous categories (PH 116)

Through these offices students can access general education advising, academic support, registration assistance, and on-going information about University policies and procedures throughout the first year experience. For more information about the first year advising offices and their services, please see the "Student Development and Enrollment Services" chapter of this Undergraduate Catalog.
3. Receive updates on academic support, student services, and college major revisions through the "First Year Times" newsletter.
4. Participate in programs and advising activities that will promote a smooth transition from high school to the university experience.
5. Connect to an academic advising office within the college of the student's chosen major at the beginning of the sophomore year.

## College of Arts and Sciences

Although students may have several advisors for varying reasons, majors within the College of Arts and Sciences must meet with their major department and their faculty academic advisor and/or the staff of the Office of Academic Support and Information Services (OASIS; CNH 202) as soon as possible.

## New Students will:

1. Meet in a group setting with representatives from the College of Arts and Sciences to discuss college policies and procedures
2. Meet with representatives of the department of the major to discuss major requirements and career opportunities, and plan a class schedule.
3. Refer to OASIS any questions pertaining to general education requirements, AP credit, university policies and procedures, etc.
4. Register for classes at a central location
5. Check their "Fee Invoices/Schedules" to ensure accuracy of their class schedule.

## Continuing Students will:

1. Contact the department of their major and meet with a faculty advisor in the department during the first two months of any semester to review progress and plan a program of study
2. Meet with their academic advisor in the department of their major prior to registration. Registration forms, Schedule Web Guide, and SASS degree audits will be distributed in the department of the major each semester
3. Continue to register for classes at a central location, on the web, or via phone
4. Refer to OASIS any questions pertaining to GEP, CLEP, AP credit, as well as policies and procedures
5. Check their "Fee Invoices/Schedules" to ensure accuracy of their class schedule

## College of Business Administration

The College of Business Administration seeks to provide its students with the highest quality academic advising. The intent of the advising system is to assist prospective and current business majors in the development of an educational plan.

## New Students will:

1. Meet college advising representatives in a group setting during Orientation to discuss college policy, procedures, and degree programs;
2. At Orientation, review degree requirements using SASS degree audit and catalog to better understand degree requirements and learn how to read an audit;
3. If transfer student, meet with the transfer advisor in the Office of Student Support (OSS; BA 240) during their first enrolled semester to petition transfer work into degree program;
4. Meet with a faculty advisor in the department of your major to understand the career options of your major;
5. If Business Pending Student, be advised in the OSS.

## Continuing Students will:

1. Meet with a faculty advisor or advisors in the OSS to review their academic progress and develop an academic plan. This plan should be reviewed prior to registration each semester/term;
2. Pick up a Schedule Web Guide and your SASS degree audit with your registration appointment time from the OSS. Check with the OSS or the TV monitors for dates each semester/term;
3. Register at your scheduled appointment time. Register by telephone or POLARIS if you are in your major. All changes to your schedule must be completed by the end of the Add/Drop period;
4. If Business Pending student, complete all prerequisites prior to admission to upper division classes;
5. Meet with the graduation advisor in OSS during the semester/ term prior to your graduation term. File your "Intent to Graduate Form" during the registration period for the semester/term in which you plan to graduate.

## College of Education

New Students will:

1. Meet college advising representatives in a group setting during Orientation to:
a. Discuss College of Education admission requirements needed for enrollment in 3000/4000 level classes;
b. Review degree program requirements;
c. Understand expectations and responsibilities associated with a career in education;
2. Be assigned to a faculty advisor in the area of your major upon completion of College of Education admission requirements. The faculty advisor's name and telephone number appear on the SASS degree audit;
3. Education Pending students are advised in the College of Education Office of Student Services (ED 109).

Continuing Students will:

1. Set up an appointment with a faculty advisor if accepted in a major or the Office of Student Services, if a "Pending" major, to review academic progress and to develop an academic plan. Review this plan each term with an advisor prior to registration;
2. Pick up a SASS degree audit with the registration appointment time from the College of Education Office of Student Services as soon as they become available (approximately two weeks prior to registration);
3. Register at scheduled appointment time by telephone or POLARIS. Students with extenuating circumstances may register in person in the College of Education Office of Student Services. Students must complete any changes to their schedules by the end of the published Add/Drop period;
4. File an "Intent to Graduate Form" in the College of Education during Registration period for the semester/term in which graduation is intended.

## College of Engineering and

## Computer Science

New Students will:

1. Meet with the Engineering and Computer Science Academic Affairs representative in a group setting during Orientation to:
a. Review the Student Manual for Engineering and Computer Science students;
b. Discuss degree program requirements;
c. Become aware of key academic policies;
2. Meet with a faculty advisor in the department of their major to:
a. Understand the career options of the major;
b. Plan an appropriate first semester schedule;
3. Engineering Pending majors are advised in the Engineering and Computer Science Academic Affairs Office (ENGR 281). They are encouraged to seek advisement on determining a major as soon as possible. Failure to declare a major by the end of the first year may result in excess hours and a delay of graduation.

## Continuing Students will:

1. See the department of their major during the first week of the semester/term to be assigned a faculty advisor. Computer Science majors will be assigned a faculty advisor once they have passed the Computer Science Foundation Exam. Until that time, Computer Science majors will be advised by the Computer Science Undergraduate Advising Office in CSB 201C;
2. Set up an appointment with the faculty advisor to review your academic progress and to develop an academic plan. Review this plan each term with the advisor prior to registration;
3. Use the flow diagram or four year plan found in the student manual of the major to progress through the degree requirements;
4. Pick up the SASS degree audit with the registration appointment time from the department of the student's major as soon as they become available (approximately one week prior to registration) and review the upcoming term's class listings on line at http://ClassSchedule.ucf.edu;
5. Register on the scheduled appointment time by telephone, POLARIS, or in person in the Engineering and Computer Science Academic Affairs Office. Complete all schedule changes by the end of the published Add/Drop period;
6. Students who have been placed on an engineering advisement hold will be required to submit a written schedule plan signed by their faculty advisor each semester/term. This plan must be submitted in person to the Engineering and Computer Science Academic Affairs Office each time a student uses the registration process;
7. File an "Intent to Graduate Form" in the Engineering and Computer Science Academic Affairs Office during the registration period for the semester/term in which the student intends to graduate.

## College of Health and Public Affairs

New Students will meet college advising representatives in group settings during Orientation to:

1. Discuss degree program requirements;
2. Understand career options of the major program of study;
3. Plan an appropriate first semester class schedule;
4. If the student is accepted in a major, he or she should check in the department of their major for their assigned faculty advisor during the first few weeks of the semester

## Continuing Students will:

1. If accepted in a major, they should see their faculty advisor during the first few months of each semester to check progress toward graduation and selection of program courses. The faculty advisor's name and phone number appear on the SASS degree audit each term;
2. Pending majors in limited-access programs should seek an advisor during the first few weeks of each semester in the College of Health and Public Affairs (COHPA) Office of Student Support (HPA2 115) to check progress toward eligibility for application to the major;
3. Pick up registration materials and the SASS degree audit with the new registration appointment time from the Office of Student Support as soon as they become available (approximately one week before registration);
4. Students should file an "Intent to Graduate Form" in the COHPA Office of Student Support during the registration period for the semester/term in which graduation will occur.

## Rosen School of Hospitality

## Management

New Students will meet college advising representatives in group settings during orientation to:

1. Discuss degree program requirements.
2. Understand career options of the major program of study.
3. Plan an appropriate first semester class schedule.
4. Students should check in the school for their assigned faculty advisor during the first few weeks of the semester.

## Continuing Students Should:

1. See their faculty advisor during the first few weeks of each semester to check progress toward graduation and selection of program courses;
2. Pick up registration materials and the SASS degree audit with the new registration appointment
time from the Office of Student Support (Classroom Building, Suite 302) prior to the start of registration;
3. File an intent to graduate form in the Office of Student Support (CL1 302) prior to the first day of classes of the term in which graduation will occur.

## Pre-Health Professions Advisement Office

Preprofessional Coordinator: O.M. Berringer, HPA 124;
407-823-2670; Email: buddb@mail.ucf.edu

The Pre-Health Professions Advisement Office serves all students preparing for and seeking admission to professional schools of chiropractic, dentistry, medicine, osteopathic medicine, optometry, pharmacy, podiatry, and veterinary medicine. The services range from basic counseling in pre-health professions matters to providing a Composite Evaluation of the student (upon his/her request) to each professional school to which the student applies. However, in order to be considered for a Composite Evaluation, the student must have at least 30 semester hours of typical undergraduate pre-health professions courses taken at UCF by the end of the Spring semester preceding his/her application to the professional schools (usually between the junior and senior year). If applying to allopathic medical schools (M.D. degree granting), a minimum overall GPA of 3.20 or better is required to qualify for a full Composite Evaluation packet. Additionally, all pre-health professions students are strongly encouraged to affiliate with and participate in the activities of one or more of the student-related organizations such as the Pre-Professional Medical Society (PPMS), American Medical Student Association (AMSA), Student Wellness Advocate Team (SWAT), etc.

## Pre-Health Professional Planning

Admission to a health professional school is highly competitive. Pre-health professions students should pay close attention to the characteristics of successful applicants. Since pathways such as "pre-med" do not result in a degree, each pre-health professions student is urged to carefully select a degree-granting major. This will not only allow one to become more competitive for admission, but also to prepare for an alternate career in the event admission to a professional school is denied. Any degree-granting program offered by the University may be selected as a major; however, those programs within the sciences will generally lend themselves most adequately to pre-health professions preparation due to the nature and content of their curricula. While satisfying degree requirements, students will find in their curricula many courses required for admission to most professional schools. Additionally, prudent use of elective hours in the curricula will permit other appropriate pre-health professions courses to be obtained. Pre-health professions students are expected to be high achievers, and to obtain good grades with heavy loads and rigorous course combinations. Most professional schools expect applicants to present at least a B average and to carry a minimum of 15 semester hours each term, with the exception of Summer terms. Sustained high-level performance while carrying 15 or more hours is one of the strongest predictors of success in professional school.

Preprofessional advisement should not be confused with academic advisement. Course selection and scheduling, as well as progress toward a given degree, should be carefully monitored by a student's degree track faculty (academic) advisor.

Preprofessional advisement deals primarily with application and admission procedures.

## Curricula Guidelines

All pre-health professions students are strongly encouraged to enroll in SLS 2311, Overview of Select Medical Careers, the first Fall semester they are enrolled. This course provides a broad exposure to guest speakers representing the various four-year health professions. In addition, the entire pre-professional process (academic preparation, applications, admission tests, interviews, admissions, scholarships, etc.) is explained in depth. Following this focus on awareness, students are prepared to make informed decisions relative to planning their pre-health professional studies and the application process. All pre-health professions students are required to complete the General Education Program (GEP) plus the following courses (many of which are applicable to the GEP):

General Biological Sciences
Genetics
General Chemistry
Organic Chemistry
Microbiology
English Composition
Calculus

Physics

BSC 2010C, 2011C
PCB 3063
CHM 2045C, 2046, 2046L
CHM 2210, 2211, 2211L
MCB 3203
ENC 1101, 1102
MAC 2233 (although MAC 2233 is
acceptable, the MAC 2311, 2312
sequence is preferable)
PHY 2053C, 2054C (although the
preceding courses are acceptable,
the sequence PHY 2048, 2048L,
2049, 2049L may be preferable

For additional required/strongly recommended courses not common to all pre-professional students, contact the Pre-Health Professional Advisement Office (HPA 124).

## Choosing a Major and Academic Advisement

The advantage of declaring a major early is to be linked with a UCF faculty member who will serve as the student's academic advisor within his or her chosen degree track. Problems are less likely when students remain in contact with conscientious advisors. Students are encouraged to investigate several degree pathways and to talk with a number of students who have selected those majors. Thorough investigation at the start of the academic career will help in making a reasonable choice. The following information offers a general guideline in selecting an academic major.

Choice of Major: The aspiring pre-health professional student is expected to declare a major within one of the degree-granting departments of the University. Terms such as premed or prevet are simply descriptive labels, as UCF does not award pre-health professional degrees. This should not be confused with offering premedical preparation. The institution offers a very strong
premedical pathway with a highly organized support system for its applicants. Students may elect any major described in the UCF Catalog. This includes such varied pursuits as Psychology, Engineering, or Liberal Studies.

Traditional vs. Non-Traditional Majors: Traditional majors for pre-health professionals are characterized by degree requirements which overlap most professional school admission requirements. Chemistry, Biology, Molecular Biology and Microbiology are the majors most often chosen at UCF, but others such as Psychology, Physics, and Mathematics are also appropriate choices.

Non-Traditional Majors: Such majors as English, Philosophy, Music, Engineering, and so forth, have the disadvantage of not overlapping with admission requirements. If a student elects a non-traditional pathway and does not complete more than the minimum science requirements, she or he will be expected to have accomplished an outstanding performance record in the science classes taken.

Ultimately, the choice belongs to the student. Professional schools are less concerned with what undergraduate major one chooses than with how well he or she performed and his or her choice of enrichment electives. Factors to consider are personal interests, finance for college, and career alternatives. The curriculum for the first two years is very similar for all pre-health professions students.

## Dates of Importance

All pre-health professions students should be aware of registration deadlines and test dates for their specific admissions exam (DAT, MCAT, OAT, GRE, etc.). In addition, most four-year health professions schools subscribe to professional application services (AMCAS, ADDSAS, ACOMAS, etc.). The applicant must be aware of which schools are members of the service and thus require completion of a thorough application packet provided by the various Application Services. Some professional schools do NOT subscribe and therefore, the student applicant must deal directly with the admissions office of such schools.

The pre-professional screening process is initiated in February. Application packets are available at the Pre-Health Professions Advisement Office during the month of February. Dental and veterinary medicine applicants should return completed packets by April 15. All other applicants (chiropractic, medical, optometry, podiatry, and pharmacy) are encouraged to return completed packets by May 1.

## The Honors College

## New Students will:

1. Attend an Honors Orientation in the Spring Semester immediately preceding their first semester of classes at UCF to discuss The Honors College courses and GPA requirements. At this time, students will obtain registration instructions for Honors courses.
2. Meet with an academic advisor during UCF Orientation to select the remainder of their first semester courses.

## Continuing Students will:

1. Contact the department of their major and meet with a faculty advisor in the department during the first two months of any semester to review progress and plan a program of study;
2. Meet with their academic advisor in the department of their major prior to registration. The Schedule Web Guide and SASS degree audits will be distributed in the department of the major each semester;
3. Make an appointment with an Honors Director (PH 202). Based on the recommendation of their academic advisor and the requirements for University Honors, an Honors Advisor will assist with Honors course selection;
4. Continue to register for classes by telephone or POLARIS;
5. Check their "Fee Invoices/Schedule" to ensure accuracy of class schedule.

## Cocoa Campus

New Transfer Students may meet with a Transfer Services staff member or faculty advisor prior to applying to UCF at Cocoa to discuss programs and requirements and at any time while enrolled. Students may enroll in the following majors offered at the Cocoa Campus: Criminal Justice, Communicative Disorders, Elementary Education, Engineering Technology, Exceptional Education, General Business, Legal Studies, Liberal Studies, Nursing (RN to BSN and basic program), Psychology, Public Administration, Social Sciences, and Social Science Education. Students will meet with faculty/staff advisors in a group setting during orientation to:

1. Discuss degree program requirements;
2. Understand career options of the major program of study; and
3. Plan an appropriate first semester class schedule.

Any student who has not been awarded an AA and not completed the UCF general education requirements should make an appointment as soon as possible with the Transfer Services staff member at UCF Brevard to clarify university policies that will affect the student's status and graduation.

Continuing Students may meet with their advisors on an on-going basis.

## Daytona Beach Campus

New Transfer Students may meet with the counseling/advising staff prior to applying to UCF at Daytona Beach (BD CC, Building 34) to discuss programs and requirements, and at any time while enrolled. Students may enroll in the following majors offered at the Daytona Beach Campus: Criminal Justice, Elementary Education, Exceptional Education, General Business Administration, Legal Studies, Liberal Studies, Nursing (RN to BSN), Psychology, and Social Sciences. Students also have the option of completing most of the course work in the following majors: Early Childhood Education, Economics, Engineering Technology, Finance, Management, and Marketing. Students will meet with faculty advisors in a group setting during orientation to:

1. Discuss degree program requirements;
2. Understand career options of the major program of study; and
3. Plan an appropriate first semester class schedule.

Any student who has not been awarded their AA degree nor completed UCF general education requirements should make an appointment as soon as possible with the advising office to clarify university policies that will affect the student's status and graduation.

Continuing Students may meet with their advisors on an on-going basis.
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Orlando, Florida
(407) 823-2000

UCF

Transfer Student Guide

## Office of Transfer Services

Director: Mark Allen Poisel
PH 113
Orlando, FL 32816-0123
407-823-5959 or Fax: 407-823-3955;
Website: http://pegasus.cc.ucf.edu/~relation;
E-mail: tservices@mail.ucf.edu

The following section presents information to help students accomplish a smooth and efficient transfer to UCF. Students transferring with an AA degree from a Florida public community college or public university are guaranteed certain rights and privileges according to the statewide Articulation Agreement. Students transferring without an AA degree from a Florida public institution will want to pay particular attention to UCF's general education program and how their transfer credits apply to their degree.

Students transferring with an AS in one of the statewide articulated degree programs should refer to the "State Articulated A.S. to B.S. Programs" chapter of this Undergraduate Catalog. AS to BS section of the catalog. Any questions about these programs should be referred to the Director of Transfer Services.

## How Will My Credits Transfer?

All college level credits earned for which UCF has official transcripts are compiled into a Transfer Summary Report (TSR) soon after the student is admitted. Some credits listed on the TSR may not be
applicable toward graduation course requirements (e.g., some departments do not accept a transfer grade of "D"). The student should review this carefully to ensure that all credits are included. The TSR is the basis for constructing the Student Academic Support System (SASS) degree audit. This audit applies the student's earned credits to the intended degree program, providing the student with an assessment of which degree requirements have been met and those remaining to be satisfied. The student and his or her advisor use the audit to schedule courses that meet the remaining requirements.

It is the student's responsibility to review the degree audit to determine how transfer courses apply toward the major. The student must contact the UCF advising office for his or her major with questions about course applicability toward the degree. For questions regarding course applicability toward general education, contact Academic Services at 407-823-2691. Arts \& Sciences majors can contact OASIS at 407-823-2492.

The student must make sure that all official transcripts, including a final transcript from the last institution attended, are submitted to the Undergraduate Admissions Office within ten days of the start of the student's first semester/term at UCF. If UCF does not receive them, a hold is placed on the record, which makes it difficult for the student to receive financial aid or register for a future semester/term.

## What are the Foreign Language Requirements?

To be admitted to the University, the student should complete two credits/years of the same foreign language or American Sign Language in high school (document by submitting an official high school transcript) or 8-10 semester hours in the same language at the college level or pass a CLEP or other proficiency examination. Students admitted without this requirement must satisfy it prior to graduation.

To graduate with a BA degree students must demonstrate foreign language proficiency in the same language, either through college level course work or testing, equivalent to one year of college instruction. Some majors require additional proficiency. Neither high school courses nor American Sign Language proficiency will satisfy graduation foreign language requirements. International students, required to provide TOEFL scores for admission, will also have satisfied the graduation requirement.

## How Can My Community College Counselor/Advisor Help Me?

Community college counselors or advisors are provided with information and resources about the requirements to enter each program at UCF. They can help a student determine which classes need to be completed before transferring to UCF. Additionally, information for limited access majors that require special application deadlines, GPA requirements, testing, portfolios, letters of recognition, etc. will be listed in this catalog. Students may also check with a counselor/advisor for current information.

## Why Should I Complete My AA Degree Before Transferring From a Florida Public Institution?

Receiving an AA from a Florida public community college guarantees rights under the statewide Articulation Agreement. The following are some of the advantages of receiving the AA:

- Acceptance of at least 60 credit hours toward the baccalaureate degree; no additional general education core requirements;

Acceptance of all courses taken at the community college, if the same course with the same course number is offered at UCF;

All accelerated programs (CLEP, AP, IB, PEP, early admission, and dual enrollment courses) within the AA degree from the community college will transfer into UCF;

Advance knowledge of selection criteria for limited access programs; equal opportunity with UCF native students to enter limited access programs;

All grade forgiveness awarded under the AA will be honored.
Students who do not complete a Florida public institution's AA must complete UCF's general education requirements, which may be considerably different from previous institutions' requirements.

## What If I Have Not Taken the CLAST?

Students can be admitted without completing the CLAST. However, be aware that without the CLAST completed, students are not awarded the AA degree; therefore, privileges provided by the AA degree are not granted (e.g., grade forgiveness, Gordon Rule, and the completion of general education requirements). Students who have met all the AA requirements except the CLAST should have "General Education Requirements Met" placed on their transcript to assure getting credit for meeting General Education Requirements and Gordon Rule courses. Without this statement students must satisfy UCF's general education requirements and Gordon Rule courses. No grade forgiveness is given, however, without the AA degree awarded. If your grade point average falls below a 2.0 (without grade forgiveness), you will not be admitted. Failure to complete the CLAST could also affect student financial aid decisions. Check with the Office of Student Financial Assistance for more

Students who have not met the CLAST requirement must take the exam their first term of enrollment and must satisfy all four parts of the CLAST by the time they have completed 36 hours of upper-division course work. UCF accepts the CLAST alternatives and waivers awarded by Florida public community colleges and universities.

Students entering the College of Education must pass the CLAST exam before enrolling in upper division education classes. Students majoring in Education may not use waivers or alternatives to satisfy CLAST requirements. Education majors who have used alternatives or waivers should speak to their college advisor.

## Where Can I Go For Help?

For additional information or assistance during the transfer process, contact the UCF Office of Transfer Services at 407-823-5959 or by e-mail at tservices@mail.ucf.edu.

Transfer Concerns and Questions
Course Equivalencies
Common Program and Course Prerequisites
Critical Academic and Transfer Policies
Foreign Language Requirements
UCF Critical Dates and Deadlines
Website: http://pegasus.cc.ucf.edu/~relation

## Can Transfer Students Participate in The Honors College?

Community college transfers and other students who have completed their general education requirements may participate in the Honors in the Major program through the completion of departmental honors requirements, including an original research project. Transfer students who apply for admission to departmental honors programs must have a minimum GPA of 3.5. Successful completion of Honors in the Major will be noted on transcripts. Qualified students who transfer to UCF with an AA with Honors from a Florida community college which has signed an Honors Articulation Agreement with THC will be admitted into University Honors with junior standing. Call

## When Do I Pay My Bill/Fees?

For students taking courses at UCF for the first time, tuition and fee payments are due on a specified date after classes begin. Students can print a copy of their fee invoice on-line from POLARIS (https://polaris.ucf.edu). A late payment fee of $\$ 50$ will be assessed on all accounts not paid or deferred by the payment deadline. Please note that you will not be sent a bill. It is the up to you to pick up a fee invoice/schedule at your college advising office or the Registrar's Office (MH 161) before the end of Add/Drop, or view your invoice through POLARIS. Payments may be made at the Cashier's Office (MH 108) or mailed to:

University of Central Florida
Cashier's Office
P.O. Box 620000

Orlando, FL 32891-8449
Do not place cash in the night depository (north-pond side of Millican Hall). Include the student's social security number on all checks and money orders. Credit cards are not accepted.

Financial Aid deferments will automatically be reflected on the "Fee Invoice/Schedule." If the total amount of tuition and fees exceeds the amount of deferment, the difference must be paid by the due date on the "Fee Invoice/Schedule." The following programs are not included in the automatic deferral program: work/study programs, third party deferrals and other waivers, and direct pay scholarships.

## TRANSFER TIPS AND CHECKLIST

## Transfer Tips

Students should:

- Submit their application at least six months in advance. They should not wait until the AA degree is awarded to apply. A student can be accepted "contingent upon completion of the AA degree." By applying early and being accepted, students will be invited to an early orientation. This means students will register along with native UCF rising juniors.

Keep a transfer diary. For each contact with UCF, students should record the name of the person with whom they spoke, the date, and the type of request. They should keep a copy of all letters they send and receive.

Have original transcripts from all institutions attended sent directly to the Undergraduate Admissions Office. If they are currently enrolled, they should send a transcript when applying and a final transcript when classes are completed.

Attend the earliest orientation session possible. Students will have more course selections and registration choices. Students should bring copies of all transcripts (transcripts sent in for admissions purposes are not always available for advising during orientation). Students are advised and then allowed to register. Tuition and fee payments are not due until a specified date after classes begin according to the published deadline.

- Complete the "Student Health Form." Registration will not be allowed without the completion and approval of this form.
- Complete CLAST if possible; however, students can be admitted without it. As students are not awarded the AA degree without completion of CLAST, privileges provided by the AA degree are not granted (i.e., grade forgiveness, Gordon Rule, and the completion of general education requirements). Students without completion of CLAST, but with all general education courses completed, should request the following statement placed on their transcript: "General Education Requirements Met." Without this statement, students must satisfy UCF's general education requirements (including Gordon Rule courses).
- Complete the "Free Application for Federal Student Aid" (FAFSA). To be considered for all aid available, students' financial aid files should be complete by March 1.


## Transfer Checklist

## Before Completing the AA

___ 1meet with counselor or advisor for graduation check
$\qquad$ complete application for graduation

## Application for Admission

$\qquad$ date submitted

## Transcripts (original transcript from all institutions attended)

$\qquad$ date transcripts sent from all current and prior institutions ______ date final transcript sent after term completed

## Financial Aid/Scholarship

$\qquad$ date financial aid application (FAFSA) sent
$\qquad$ date financial aid transcript sent to UCF
$\qquad$ date financial aid notification by UCF
$\qquad$ date SCHOLARSHIP application mailed or transfer notice sent to appropriate office
$\qquad$ date SCHOLARSHIP application response

## Housing

__on-campus housing __off-campus housing
$\qquad$ date application sent (include deposit when required)
_______ date accepted
Immunization
_____ date student health form submitted

Y $\qquad$ need immunizations

## Foreign Language Requirements

Y__ N__ 2 years/credits earned in high school
Y__ $\mathrm{N}_{\text {_ _ }} \quad 8-10$ credits earned at the post-secondary level
Y $\qquad$ N credits to be taken at the university

Y $\qquad$ exempt from foreign language admission requirements

Note: Although American Sign Language may be used to satisfy the UCF admissions requirement, it cannot be used to satisfy graduation requirements that may be required by the specific major.

## Program (Major) Requirements

$\mathrm{Y} \_\mathrm{N}_{1} \quad$ limited access
$\mathrm{Y} \_\mathrm{N}_{\_} \quad$ completed prerequisites
$Y_{\_} \quad \mathrm{N}_{\ldots} \quad$ met grade point average (GPA) requirements, if applicable
$\mathrm{Y}_{\ldots} \quad \mathrm{N}_{2}$
met minimum cumulative GPA for admission to program of study
$\mathrm{Y}_{\_} \quad \mathrm{N}_{\ldots}$ met cumulative GPA in courses taken for program of study
Y $\qquad$ met grade requirements for designated courses
Y $\qquad$ N audition/portfolios requirement
Y $\qquad$ N $\qquad$ ACT/SAT (education majors only)
Y $\qquad$ N CLAST

## Other:

$\qquad$ Orientation date at UCF
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## Undergraduate Degree Requirements

## Requirements for Graduation

Students must fulfill both the requirements for a major and University requirements to receive a bachelor's degree from the University of Central Florida. The student must:

Fulfill the requirements for the chosen major;
Earn a minimum of 120 unduplicated semester hours with at least a "C" average (2.0 GPA) for all UCF course work attempted. Some majors require more than 120 hours;

- Earn at least 48 of these 120 semester hours in 3000-level courses or above (upper-division);

Earn the last 30 semester hours in regular courses at UCF. Credit by examination may not be used to satisfy this requirement;

Earn a minimum of $25 \%$ of the total hours required for the degree in residence at UCF. For programs that require the minimum of 120 total hours, residency will be 30 hours. For programs that exceed 120 hours, the specific residency requirement increases proportionally and is listed with the requirements for the specific degree program;

Earn a minimum of 60 semester hours after CLEP credit has been awarded;
Apply no more than 45 semester hours in any combination of extension, correspondence, CLEP, University Credit by Examination and Armed Forces credits toward an undergraduate degree;

- Fulfill the General Education Program requirements;

Fulfill the Gordon Rule requirements;
Fulfill the Foreign Language requirements as defined elsewhere in this section;
Fulfill the CLAST requirement; and
Earn a minimum of nine semester hours during Summer terms, if applicable.

## Choice of Catalog (Catalog Year) and Continuous Enrollment

A student must graduate under the provisions of any UCF Undergraduate Catalog in effect since the student began continuous enrollment at UCF. A student transferring from Florida public community colleges or state universities may use the UCF Undergraduate Catalog in effect at the time he or she began the most recent period of continuous enrollment in academic good standing at any of the Florida public institutions.

Continuous enrollment is defined as being enrolled in classes without a break of two or more consecutive regular semesters/ terms (i.e., Fall and Spring, or Spring, Summer, and Fall). Continuous enrollment is automatically broken when a student moves from one transfer institution to another following academic disqualification or exclusion.

Effective May 2000, students changing to a new major in the colleges of Arts and Sciences, Business Administration, or Health and Public Affairs must move to the current year's catalog. Additional information is included in the program descriptions. Students must use a single catalog and not a combination of catalogs for graduation. In cases when required courses are no longer taught by the University, the appropriate department, college, or Academic Services (MH 210) may designate a reasonable substitute. If a student desires to change the catalog for graduation, the student should first discuss with the advisors how such a change would affect University, college, and major requirements. If a student decides to request a change, he or she should complete a "Catalog Year Change Request Form" in the Registrar's Office (MH 161) or online at http://registrar.ucf.edu.

## General Education Program (GEP)

The purposes of the UCF General Education Program (GEP) are to introduce students to a broad range of human knowledge and intellectual pursuits, to equip them with the analytic and expressive skills required to engage in those pursuits, to develop their ability to think critically, and to prepare them for life-long learning. The GEP curriculum provides students with the intellectual, ethical, and aesthetic foundations necessary to make informed choices; to accept the responsibilities of working and living in a rapidly changing world; and to lead a productive and satisfying life.

Courses that fulfill the General Education Program requirements are specified, but in some cases an advanced course in the same discipline may be substituted for GEP requirements with the approval of Enrollment and Academic Services. Students should consult both with an advisor and with Enrollment and Academic Services before submitting any course.

Undergraduate students who have not completed requirements for the Associate of Arts degree and who desire to transfer to another Florida public university can have their transcripts indicate "General Education Requirements Met" upon written request, if they have completed UCF's GEP requirements
with a GPA of 2.0 or better. UCF will accept a similar statement on transcripts received from Florida public community colleges and universities in lieu of completion of the University's General Education Program. Students enrolled in courses that use the "NC" grade must earn a grade of "C" (2.0) or better.

## General Education Program (GEP) Courses (36 semester hours required)

(Some majors require a specific course or a higher level course in some areas. Consult your major requirements and advisor.)

| Communication Foundations |  | 9 hours |  |
| :---: | :---: | :---: | :---: |
| 1. E | ENC 1101 English Composition I 1 |  | $3(3,0)$ |
| 2. E | ENC 1102 English Composition II PR:EN | $1101{ }^{1}$ | $3(3,0)$ |
| 3. S | SPC 1600C Fundamentals of Oral Commun | ication or | $3(3,0)$ |
| SPC 1016 | Fundamentals of Technical Presentation | $3(3,0)$ |  |
| Cultural a | and Historical Foundations | 9 hours |  |
| 1. T | Take one of the following two-semester sequences: |  | (6 hours) |
| EUH 2000 | 0 Western Civilization I and | $3(3,0)$ |  |
| EUH 2001 | 1 Western Civilization II or | $3(3,0)$ |  |
| HUM 2211 | 1 Humanistic Tradition I and | $3(3,0)$ |  |
| HUM 2230 | 30 Humanistic Tradition II or | $3(3,0)$ |  |
| AMH 2010 | 0 U.S. History: 1492-1877 and | $3(3,0)$ |  |
| AMH 2020 | 0 U.S. History: 1877-present or | $3(3,0)$ |  |
| WOH 2012 | 2 World Civilization I and | $3(3,0)$ |  |
| WOH 2022 | 2 World Civilization II | $3(3,0)$ |  |
| $2 . \quad T$ | Take one course from the following: |  | (3 hours) |
| ARH 2050 | 0 The History of Art I | $3(3,0)$ |  |
| ARH 2051 | 1 The History of Art II | $3(3,0)$ |  |
| MUL 2010 | 0 Enjoyment of Music | $3(3,0)$ |  |
| THE 1020 | Theatre Survey | $3(3,0)$ |  |
| FIL 1001 | Cinema Survey | $3(3,0)$ |  |

World Literature I PR: ENC 1102
LIT 2120 World Literature II PR: ENC 1102

$$
3(3,0)
$$

## Mathematical Foundations

6 hours
Take one course from each group.
1.
MAC 1105
College Algebra ${ }^{2}$
MGF 1106
Finite Mathematics ${ }^{2}$
$3(3,0)$

3(3,0)
2. CGS 1060C Introduction to Computer Science ${ }^{2}$

STA 1060C Basic Statistics using Microsoft Excel ${ }^{2} \quad 3(3,0)$
STA $2014 \quad$ Principles of Statistics 2
3(3,0)
Social Foundations
6 hours
Take one course from each group.


1. AST 2002 Astronomy 3(3,0)

PSC 1121* Physical Science PR: MAC 1105 or MGF 1106 3(3,0)
PHY 2053C College Physics PR: MAC 1105 and MAC 1114 4(3,3)
CHM $1020 \quad$ Concepts in Chemistry
PR: MAC 1105 or MGF 1106 3(3,0)
2. BSC 1005* Biological Principles 3(3,0)

BSC 1050*
Biology and Environment
3(3,0)

| GLY 1030 | Geology \& Its Applications | $3(3,0)$ |
| :--- | :--- | :--- |
| GEO 1200* | Physical Geography | $3(3,0)$ |
| ANT 2511 | The Human Species | $3(3,0)$ |

* A one credit laboratory is also available for this course
${ }^{1} \mathrm{~A}$ grade of "C@ (2.0) or better is required in this course
${ }^{2}$ A grade of "C" (2.0) or better satisfies three hours of the Gordon Rule requirement in mathematics. In addition, a
grade of "C" (2.0) or better in any higher level course in mathematics, statistics, or computer science also satisfies three hours of the mathematics requirement.


## Substitution of Courses: General Education Program and Other Requirements

The Student Academic Support System (SASS) degree audit routinely coordinates the evaluation of transfer courses for the University's General Education Program and Foreign Language Proficiency requirements. When the transfer course work is entered into the UCF computer system (usually during the first semester at UCF), SASS degree audit will request course descriptions and other information to provide a sufficient basis for evaluation. Courses are evaluated on the basis of equivalency with the content of the courses required by the University. The evaluation conducted is entered into a computerized SASS Degree Audit System and then is available to the colleges and departments through the University's computer network and for the student on-line access through POLARIS at https://polaris.ucf.edu. Appeals of decisions made by SASS Degree Audit should be directed to Academic Services (MH 210). Substitution requests for college or major requirements are processed within those administrative offices.

## Alternate Courses: General Education Program

Courses that may be taken in substitution for the stated GEP requirements are listed below:

## GEP REQUIREMENTS

MAC 1105 (College Algebra) 2311, MAC 2312, MAC 2313

## ACCEPTABLE SUBSTITUTIONS

MAC 1114, MAC 2233, MAC 2253, MAC 2254, MAC

PHY 2053C (Physics)
CHM 1020 (Chemistry)
BSC 1005 or BSC 1050 (Biology)
GEO 1200 (Geography)
CGS 1060C (Intro to Computer) COT 3100,

STA 2014 (Statistics)
THE 1020 (Theatre)
FIL 1001 (Cinema Survey)
MUL 2010 (Enjoyment of Music)

PHY 2048, PHY 2049, PHY 2054C, PHY 2014C, PHY 5015
CHM 2045C, CHM 1032, CHS 1440
BSC 2010C
GEO 2370
CGS 2100, CGS 3422, COP 2200, COP 2500C, COP 3502C,

STA 2023, STA 3032
THE 2000
FIL 2400, FIL 3401, FIL 3402
MUH 4212

## Diversity Requirement

The University recognizes that communities are comprised of, and enriched by, people of diverse backgrounds. The study of diversity is encouraged to promote an understanding of the needs of individuals, the University, and society. Thus, all students completing their first bachelors degree from UCF must complete at least one course that explores the diverse backgrounds and characteristics found among humans, including: race/ethnicity, gender, social class/caste, religion, age, sexual orientation, and level of physical ability.

Students are exempt from this requirement if they have completed an Associate of Arts degree or the General Education Program at a Florida public state university or community college. Students who have previously completed a baccalaureate degree also are exempt.

The requirement is satisfied by the successful completion of a diversity course selected from the following list. Additional courses may be approved subsequently by the General Education Oversight Committee, so students should consult their departmental advisor for the most current listing.

## General Education Courses:

ENC 1102 Composition II

| SPC 1600C | Fundamentals of Oral Communication |
| :---: | :---: |
| SYG 2000 | General Sociology |
| ANT 2000 | General Anthropology |
| POS 2041 | American National Government |
| PSY 2013 | General Psychology |
| WOH 2022 | World Civilization II |
| LIT 2120 | World Literature II |
| Other Courses: |  |
| AMH 3421 | History of Florida to 1845 |
| AMH 3423 | Florida History 1845-Present |
| AMH 3562 | Women in American History II |
| AML 3283 | Contemporary American Women's Fiction |
| AML 3615 | Harlem, Haiti, and Havana |
| ANT 3245 | Native American Religions |
| ASH 4304 | Women in East Asia: China and Japan |
| CCJ 4463 | Cultural Diversity in Criminal Justice |
| CCJ 4630 | Comparative Justice Systems |
| CCJ 4670 | Women and Crime |
| COM 4014 | Gender Issues in Communication |
| COM 4461 | Intercultural Communication |
| EDG 2701 | Teaching Diverse Populations |
| LIN 4643 | Cross Cultural Communication |
| LIN 4XXX | African-American Styles of Communication |
| LIT 3354 | Ethnic Literature in America |
| LIT 3192 | Caribbean Literature |
| MMC 4300 | International Media |
| NUR 3809 | Transitional Concepts in Nursing I |
| NUR 3617 | Promoting Healthy Communities |


| NUR 3616 | Promoting Healthy Families Across the Lifespan |
| :--- | :--- |
| PAD 4446 | Multiculturalism in Public Administration |
| PLA 4020 | Law and Society |
| PLA 4830 | World Legal Systems |
| PLA 4XXX | Employment Discrimination |
| SOW 3420 | Social Work with Minorities |
| SPW 4772 | Black Presence in Contemporary Latin America |
| SYD 3800 | Sex Roles in Modern Society |
| SYP 4323 | Social Systems and Diversity |
| SYP 4734 | Minority Aging |
| SYP 4323 | Social Systems and Diversity |
| THE 3230 | Commonality within Cultural Diversity Experienced through Theater |
| WST 3010 | Introduction to Women's Studies |

Transfer work from other colleges and universities is evaluated by the student's major department to determine if courses meet the diversity requirement. Satisfaction of this requirement remains in effect if the student changes majors.

## Exit Exams

In order to measure their effectiveness, some departments and colleges may require graduating students to participate in an exit exam designed to measure the students' understanding of the discipline.

## Foreign Language Proficiency Requirement (Bachelor of Arts Degree)

Students graduating with a Bachelor of Arts degree must demonstrate proficiency in a foreign language equivalent to one year of college instruction. This requirement may be met either by successful completion of the appropriate college-level course or by examination. Languages that may be used include those taught at UCF and any others for which the University can obtain standardized proficiency tests. Students who have previously received a baccalaureate degree are exempt from this

## Placement in Language Course

Placement in foreign language courses is based on one year of high school language being equivalent to one semester of college work. For example, four years of one high school foreign language place the student in the first semester of the third year.

Native speakers or students who have received advanced education abroad must substitute select classes.

## Several departments, colleges, and schools have additional requirements. See 'Special College and/or Departmental Requirements" within each department listing.

1. This requirement is for proficiency and not a requirement for a particular number of hours of course work. For example, successful completion of only SPN 1121 (Elementary Spanish Language and Civilization II) would satisfy the B.A. requirement. Appropriate scores on Advanced Placement and CLEP examinations will also satisfy the requirement.
2. This is a University-wide requirement for all B.A. majors.
3. The Testing Administrator of the Office of Counseling and Testing will offer the Foreign Language Proficiency Examination periodically each semester. Students must register in advance with that office to take the examination (RS203).
4. The foreign language proficiency requirement does not apply to students seeking a second baccalaureate degree.
5. A student who is required and furnishes a passing TOEFL (Test of English as a Foreign Language) score for admission to the University is considered to have satisfied the requirements.

## SUS Foreign Language Admission Requirement

Students who have not satisfied the Foreign Language Admission Requirement (two units in the same language) at the time they are admitted to the University must satisfy this requirement prior to graduation. This requirement applies to all undergraduates and is separate from the UCF Foreign Language proficiency requirement.

## The Gordon Rule

The Gordon Rule (State Rule 6A-10.30) applies to students who first enrolled in any college or university after October 1982. The rule requires students to complete 24,000 words of composition in four courses ( 12 semester hours) and to complete two courses (six semester hours) of mathematics at the level of college algebra or higher. Each course must be completed with a minimum grade of "C" (2.0). CLEP may not be used to satisfy the composition portion of the Gordon Rule Requirement.

UCF courses that are required by the General Education Program also may be used to satisfy the Gordon Rule. Gordon Rule requirements may be satisfied by the General Education Program as follows:

## Gordon Rule Requirement:

1. Six hours of mathematics at the level of college algebra or higher science

## GEP Courses Which Satisfy:

(1) College algebra or finite
math
(2) Statistics or computer

Any 3000-level or above course in mathematics, statistics, or computer science also may be used toward fulfillment of the mathematics portion of the Gordon Rule Requirement.
2. 12 hours of course work in
which the student must complete 24,000 words of composition
(1) Six hours of English

Composition
(2) Six-hour sequence of

Western Humanities,World History,
U.S. History, or Western Civilization

All literature and composition courses taught by the Department of English, and each of the courses listed below fulfill 6,000 words of the composition portion of the Gordon Rule Requirement.

Additional specific upper level courses also may be used to meet the Gordon Rule composition requirement. Consult the OASIS for information.

| JOU 3100 | News Reporting |
| :---: | :---: |
| JOU 4302 | Editorial/Column Writing |
| JOU 4310 | Freelance Writing |
| JOU 4300 | Feature Writing |
| JOU 4104 | Public Affairs Reporting |
| JOU 4306 | Critical Writing |
| PUR 4800 | Public Relations Campaigns |
| RTV 3501 | Broadcast Copywriting |
| RTV 3300 | Broadcast Newswriting |
| RTV 4402 | Broadcast Criticism |
| THE 4072 | Principles of Motion Picture Art |
| Each of the courses listed below fulfill 3,000 words of the composit Requirement. |  |
| AMH 3402 | History of the South to 1865 |
| AMH 3403 | History of the South Since 1865 |
| AMH 3441 | History of the Frontier: Eastern America |
| AMH 3442 | History of the Frontier: Western America |
| AMH 4140 | Jeffersonian America |
| AMH 3540 | Military History |
| AMH 3560 | Women in American History |
| AMH 3571 | Black American History |
| AMH 3800 | Canadian History |
| AMH 4110 | Colonial America, 1607-1763 |
| AMH 4130 | The Age of the American Revolution 1763-1789 |
| AMH 4170 | Civil War and Reconstruction |
| AMH 4160 | Jacksonian America |
| AMH 4201 | Robber Baron Era |
| AMH 4231 | United States History: 1914-1945 |


| AMH 4270 | United States History: 1945-Present |
| :---: | :---: |
| AMH 4311 | American Culture I |
| AMH 4313 | American Culture II |
| AMH 4510 | Rise of the US to World Power, 1776-1914 |
| AMH 4511 | US as a Great Power: 1914-Present |
| ANT 3145 | Archae of Complex Soc |
| ANT 3162 | Archae of Mid \& S.Am |
| ANT 3163 | Mesoam Arch |
| ANT 3168 | Maya Arch |
| ANT 3930 | Seminar in Arch Meth |
| ARH 4350 | Baroque Art |
| ARH 4430 | 19th Century Art |
| ARH 3456 | Art After 1945 |
| ARH 4450 | 20th Century Art |
| ARH 4655 | Meso American Art |
| ASH 3300 | Survey of East Asia |
| ASH 4404 | China in 19th and 20th Centuries |
| ASH 4442 | Modern Japan, 19th \& 20th Centuries |
| EUH 3122 | Medieval Society and Civilization |
| EUH 3142 | Renaissance and Reformation |
| EUH 3235 | Romanticism and Realism |
| EUH 3242 | Modern Europe of the First World War |
| EUH 3281 | Second World War \& Rebirth of Europe |
| EUH 3411 | Ancient Rome |
| EUH 3651 | War and Society |
| EUH 4284 | Facisim \& the Totalitarian Dictatorships |
| EUH 4456 | France, 1914-Present |
| EUH 4461 | Rise of Modern Germany |

EUH 4465 Hitler's Third Reich
EUH 4500 English History to 1485
EUH 4501 English History to 1485-1815
EUH 4502 British History: 1815-Present
EUH 4530 British Empire \& Commonwealth
EUH 4571 History of Russia to 1801
EUH 4574 History of Russia 1801-1917
EUH 4576 History of the Soviet Union: 1917-Present
EUH 4620 European Great Powers: 1815-1914
EUH 4621 War \& International Politics in
Europe 1914 to present
FIL 4201 Film Production II
HIS 4150 History and Historians
HUM 3431 Ancient World: Greece
JOU 4300 Feature Writing
JOU 4104 Public Affairs Reporting
JOU 4306 Critical Writing
LAH 3130 Latin American History I
LAH 3200 Latin American History II
LAH 3400 History of Mexico \& Central America
LAH 3470 History of the Caribbean
PHH 3100 Ancient Philosophy
PHH 3400 Modern Continental Philosophy
PHH 3402 Modern British Philosophy
PHI 2600 Ethics
PHI 3800 Aesthetics
PHI 3803 Philosophy \& Creativity
PLA 3155 Legal Writing

## College Level Academic Skills Test (CLAST)

The College Level Academic Skills Test (CLAST) is designed to ensure that students have achieved communication and computation skills commensurate with successful completion of the lower-division course work. All students seeking an Associate of Arts or baccalaureate degree from a State of Florida Institution are required by the State to satisfy the CLAST requirement. There are several methods by which students may meet this requirement, but applicants for teacher certification may only satisfy the CLAST by earning passing scores on each subtest. Students who have completed 18 or more semester hours are eligible to take CLAST.

Transfer students with more than 60 semester hours who have not taken the CLAST or who have not met the CLAST requirement may be admitted, but they must take the CLAST exam during their first term at UCF. If a student has not met the CLAST requirement by the completion of 36 upper division semester hours, enrollment in future terms at UCF will be restricted until the CLAST requirement has been satisfied.

Students with 60 or more hours of credit who have not taken the CLAST may be restricted from future registration. Students who have not passed all four subtests of CLAST may enroll in 36 semester hours of upper division credit. If the CLAST requirement has not been satisfied and the 36 hours of upper division credit have been earned, enrollment in future semesters/terms at UCF will be prohibited until the CLAST requirement has been met. An appeal to continue enrollment may be submitted to the CLAST Waiver Committee (PH 107).

CLAST is offered statewide once per semester/term. Students must register in advance at the Student Academic Resource Center (PH 115) or at the Registrar's Office (MH 161). Additionally, students may retake the English Language Skills, Reading, and/or Mathematics subtests on computer at the Counseling and Testing Center/Test Office, Student Resource Center, room 212. A fee will be charged for the computer-adapted CLAST. Information regarding preparation for the CLAST or Alternative criteria for meeting the CLAST requirement may be obtained from the Student Academic Resource Center (PH 115); 407-823-5130. Academic advising offices within each college and Academic Support and Advising Programs also can answer questions students may have.

## Summer Attendance Requirement

A student entering the State University System with fewer than 60 semester hours of credit is required to enroll in a minimum of nine hours of credit in the summer at a State of Florida university. Courses taken at the University during the summer for which the student receives a "W" or "F" may be counted toward this requirement. Petition forms for exemption are available from Academic Services (MH 210).

## Admission to the Upper Division

To be classified as an upper division student at the University of Central Florida, a student must complete the following:

1. A minimum of 60 semester hours of academic work;
2. The English and mathematics requirements of the Gordon Rule;
3. Passing scores on three of the four parts of the CLAST; and
4. One year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## Graduation Application Deadline

Students planning to graduate in the next semester/term must complete the "Intent to Graduate Form" in their college during Early Registration for their last semester/term (see Academic Calendar for specific dates). Students who have not applied for graduation by the last day of classes in the semester/ term preceding the graduation semester may not be listed in the Commencement Program. Graduating students must be enrolled at UCF during the semester/term of graduation. Graduates may contact the Registrar's Office for Commencement ceremony and guest ticket information or refer to http://graduation.ucf.edu.

Successful completion of the degree requirements stated in the Undergraduate Catalog under which the student plans to graduate shall constitute a recommendation of the respective college faculty that the degree be awarded, assuming the student is in good standing at the University. A student must complete all requirements for a baccalaureate or graduate degree no later than the date of the Commencement. A student may not be enrolled as a transient student in another institution during the semester/term in which the baccalaureate degree or the Associate of Arts degree is to be awarded.

## Correspondence Courses

The University of Florida's Division of Continuing Education, Department of Independent Study by Correspondence administers all correspondence instruction for the State University System of Florida (SUS). College credit, high school credit, and continuing professional education courses are available through regular mail and Fax (several by e-mail). Independent Study offers more than 150 courses to students who would like a flexible schedule or an opportunity to take extra classes. It is possible to enroll any time during the year.

In 1996, the state revised the General Provisions Rule 64-4.002, at the Bureau of Teacher Certification for the State of Florida. Any teacher in the state now can use credit correspondence courses, as appropriate, to apply toward the recertification of the teaching license. Moreover, there is no limit to the number of courses that may fulfill the requirements.

The current catalog details enrollment procedures, fees, and course information. A copy may be obtained at no cost by calling or writing to: University of Florida, Independent Study, Suite D, 2209 NW 13th St., Gainesville, FL 32609; 352-392-1711, Ext 200; e-mail: learn@ nervm.nerdc.ufl.edu. Website: http://www.correspondenceStudy.ufl.edu/.

## Double Majors

Any UCF student working toward a single bachelor's degree (a B.A. or a B.S. degree) who concurrently satisfies the requirements for two majors will be awarded one diploma with both majors indicated on the transcript. Since the requirements for Bachelor of Arts and Bachelor of Science degrees are different, a student completing a major with a B.A. and a major with a B.S. must satisfy the requirements for both the B.A. and the B.S. degrees. Students may not pursue a BA/BS double major in the same major. Although both majors will be indicated on the transcript, only one diploma (a B.A. or a B.S., at the student's option) will be awarded. A double major does not require a minimum number of hours beyond those necessary for completing degree requirements, while a second baccalaureate degree has specific minimum requirements.

## Second Baccalaureate Degree

Any UCF student desiring to obtain two baccalaureate degrees must meet the requirements for both degrees and earn a minimum of 150 semester hours. A separate diploma will be awarded for each degree.

Transfer graduates from accredited four-year U.S. institutions who apply for admission to work toward a second baccalaureate degree at the University of Central Florida must meet the regular admission requirements of the major department and the UCF residency requirement for that degree. Students holding the baccalaureate degree from accredited U.S. institutions are considered to have completed CLAST, Gordon Rule, foreign languages, and General Education Program Requirements. Students who hold degrees from foreign institutions may be required by the Office of Academic Services (MH 210) to fulfill all or part of the UCF General Education Program requirements.

The University requirements specified in the preceding paragraphs are minimum requirements. Departments and colleges may require more than 150 semester hours for a second degree or more than 30 semester hours to be taken in residence at UCF. Students should confirm department, school, and college requirements with their academic advisors.
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Academic Regulations and Procedures

## Semester Hours

The graduation credit value of each course of instruction is stated in terms of semester hours. A semester hour of credit represents one class hour of work (or two or more laboratory hours of work) per week for a semester.

Classes may be offered for a six-week period during the summer term. During this shortened semester, two and a half class hours of work (or four or more laboratory hours of work) per week are required to represent a semester hour of credit.

## Maximum Course Load

The University reserves the right to establish maximum course loads for students at any level. Course load limitations will be published in the Schedule Web Guide and will be made available prior to the beginning of the semester/term.

## Student Classifications

Students will be classified by level, on the basis of semester hours satisfactorily earned as follows:

Freshman:
Sophomore:
Junior: requirements.

Senior: requirements.

Post-Baccalaureate: Any student enrolled in courses, regardless of course level (except one
working toward another baccalaureate degree), who has a baccalaureate degree but has not been admitted to a graduate program. All post-baccalaureate students are considered as non-degree undergraduates for all University policies and procedures.

Graduate:
Any student enrolled in graduate courses who has been admitted to a graduate program.

## Other student classifications:

Auditor: A student registered for any credit course who is not seeking credit.
Co-op Student: A student enrolled in the Cooperative Education Program remains a registered student during all off-campus assignment semesters. Furthermore, there is no lapse in continuity in the co-op school calendar: a co-op student either is on assignment or attending class during each school semester

Special Student: A student of demonstrated academic ability who does not meet the regular requirements for admission (Early Admission, non degree-seeking, transient, and auditor)

Temporary: A student who applied before the deadline and who is permitted to register and attend class pending completion of the admission file

Transient:
Students temporarily registered (for one semester) at the University of Central Florida with the approval of another university or college where they are regularly enrolled, or a UCF student temporarily in attendance at another university or college, with the approval of UCF. A UCF student may not be enrolled as a transient student in another institution during the term in which the baccalaureate degree or the A.A. degree is to be awarded.

Non-Degree-Seeking: A student earning credit, but not working on a degree program.
Provisional: A student entering from a regionally unaccredited high school, college, or university may be admitted on provisional status where appropriate. By obtaining a minimum 2.0 GPA ("C" average) at the end of the first semester/term of attendance, the provisional status will be removed. Earning less than a " C " (2.0) average the first term would result in disqualification.

## Dual Usage of Credit Hours

Courses used to meet the requirements of an undergraduate degree typically cannot also be used to meet the requirements of a graduate program. At the discretion of the program and college, graduate programs are permitted to accept up to nine hours of graduate course work taken at UCF while an undergraduate student as part of an undergraduate program of study. Ask your department for information regarding the Senior Scholars program. Contact your advisor or college for specific program requirements or additional information.

## Third Attempt Course Repeat Surcharges

All students enrolled in undergraduate courses for the Fall 1999 semester and beyond are subject to an additional surcharge fee when they enroll in the same undergraduate college-credit course three or more times. Completed courses, withdrawals, and courses with incomplete grades are counted as attempts, including courses repeated in order to raise the GPA or to achieve a specific grade. Courses that specify they may be repeated for credit are exempt. Students seeking exemptions for extenuating circumstances or financial hardship may submit a written petition with documentation to the Fee Appeals Committee, Student Accounts Office (MH 107).

## Transient Enrollment at Other Institutions

A UCF degree-seeking student who desires to earn credit at another college or university for transfer back into a degree program must obtain prior approval for specific courses from the Dean or Department Chair of his/her respective college/school. Approval of courses for the General Education Program should be obtained from Academic Services. Credit earned without this transient approval may not be accepted. Plus or minus grades will be transferred for course work earned Fall 2001 and after using UCF's grade point system. Because of graduation certification, students may not take courses in transient status during the semester/term in which they expect to graduate. Transient forms are available in the college of the student's major. Transient credit cannot be used to reduce the last 30 semester hour residency requirement for a baccalaureate degree, the last 20 semester hour residency requirement for an Associate of Arts degree, or any departmental residency requirements.

## Religious Observances

It is the policy of the University of Central Florida to reasonably accommodate the religious observances, practices, and beliefs of individuals in regard to admissions, class attendance, and the scheduling of examinations and work assignments. A student who desires to observe a religious holy day of his or her religious faith will notify all of his/her instructors and be excused from classes to observe the religious holy day.

The student will be held responsible for any material covered during the excused absence, but will be permitted a reasonable amount of time to complete any work missed. Where practicable, major examinations, major assignments, and University ceremonies will not be scheduled on a major religious holy day.

Students who are absent from academic or social activities because of religious observances will not be penalized. A student who believes that he/she has been unreasonably denied an educational benefit
due to his/her religious belief or practices may seek redress in accordance with Rule 6C7-5.0031, Student Grievance Procedure, as listed in The Golden Rule.

## Grade System

The University uses an alphabetic system to identify student grades and other actions regarding student progress or class attendance. Beginning Fall 2001, a plus/minus grading system became effective, with a grade point equivalent per semester hour as follows:
Grade Points Per

Grades
A
A- 3.75
B+
B
B-
C+
C
C- 1.75
D+ $\quad 1.25$
D
D-

F
NC - No Credit

* Available only in ENC 1101, ENC 1102, MAC 1105H, MAC 1105, MAC 1114, MAC 2147, MAC 2233, MAC 2241, MAC 2253, MAC 2281, MAC 2281H, MAC 2311, MAC 2311H, and STA 2014.


## Other Actions

I Incomplete
N No grade reported by instructor
R (followed by grade)
Grade Points
(Research, Thesis, or Dissertation)
T (followed by grade)
Subsequently repeated (no credit)
U Unsatisfactory (no credit)
W Withdrawn
WF Withdrawn Failing 0
WH Health Form Withdrawal
WM Medical Withdrawal
WP Withdrawn Passing
X Audit (no credit)

The grade point average (GPA) is the average number of grade points per semester hour attempted. GPA is computed by dividing the total number of grade points assigned by the total number of semester hours attempted, less hours resulting from NC, W, WP, and I grades. The grade point average for graduation requirement is a minimum UCF 2.0 ("C").

The designation of " N " will be assigned temporarily by the Registrar's Office only in the case when a grade has not been submitted by the faculty by the grade submission deadline. The designator will be replaced by the earned letter grade at the earliest opportunity in the semester that immediately follows. The " N " designator may not be assigned by the instructor.

## Grade Change

A "Grade Change Request Form" will be considered only during the semester immediately following the one in which the grade was assigned, except that grades assigned during the Spring semester may be changed during either the following Summer term or Fall semester. Academic actions do not change when an incomplete grade is completed nor when a course is repeated. An exception can be made when a University error has been committed and is so stated by the instructor on the "Change of Grade Request Form." A change in a grade must be approved by the dean of the college/school. A grade will not be changed after a degree has been conferred.

## Incomplete Grade

A grade of "I" (incomplete) is assigned by the instructor when a student is unable to complete a course due to extenuating circum-stances, and when all requirements can be completed in a short time following the end of the term. The student is responsible to arrange with the instructor for the completion of the requirements of the course. Effective with incomplete grades assigned in the Fall semester 1997 and thereafter, a student can not graduate from the University with an "I" on the transcript. The incomplete must be changed within one year of the last day of the semester or prior to graduation from the University, whichever comes first. Unresolved incomplete grades automatically will be changed to "F" by the Registrar's Office. Unresolved "I" grades in courses graded with "S" or "U" will be converted to "U." Academic actions do not change when an incomplete grade is completed.

## Grade Forgiveness

Grade Forgiveness offers a student the opportunity to retake a course and earn a higher grade that will be substituted for the previous lower grade and thus raise the GPA. "Grade Forgiveness Forms" are available in the Registrar's Office or on the Registrar's website. Requests must be submitted no later than the last day of Add/Drop for the semester/term in which the student has registered for the course being repeated. The following policies apply:

1. Grade Forgiveness is limited to two courses;
2. Grade Forgiveness may not be used twice for the same course;
3. Grade Forgiveness will only be awarded if the original and repeated courses both are taken at UCF;
4. All grades will remain on the student's official transcript. The original course grade will be marked with a " T " to indicate that the course has subsequently been repeated, and the repeat course grade will be marked with an "R." The original grade always will appear on the transcript but only the repeated course grade will be calculated into the GPA;
5. If it is determined that the student is ineligible for the Grade Forgiveness policy, neither a refund of fees nor automatic withdrawal from the course will be made;
6. If a student applies for Grade Forgiveness and later withdraws, or receives and "I" grade or "NC" grade in the
course, the attempt will count as one of the allotted Grade Forgiveness attempts, and the GPA will calculate both grades.
7. UCF does not honor Grade Forgiveness granted at other institutions unless it is part of an Associate of Arts or a specific statewide articulated Associate of Science degree transferred from a Florida public community college or university. UCF's Grade Forgiveness policy may not be honored
by other colleges, universities, professional schools, or national testing associations;
8. Due to the two-course limit, a student who has repeated two or more courses at a Florida public community college or university and included those courses in the transfer of an AA or a specific statewide articulated AS degree will not be granted any Grade Forgiveness at UCF;
9. Grade Forgiveness awarded for repeated courses will not retroactively alter any previous academic action (i.e. academic probation or disqualification). In addition, no academic records can be altered after a student graduates;
10. Grade Forgiveness is not retroactive and, therefore, may not be used for a course repeated before Fall 1981. If a student who repeated a course at UCF before 1981 and did not use the previous forgiveness policy may repeat the course again. In this case, the lower of the previous two grades will be forgiven. This special circumstance is the only one in which a student will be allowed to repeat a course more than once; and
11. With prior approval from the Dean's office in which the course is offered, a student may substitute a course different from the original one if: 1) the substitute course reflects a change in prefix, number, hours, or title but not in substance; or 2) the substitute course replaces a course no longer offered by UCF.

Repeated Enrollment in Same Course: Beginning Fall 1997, a student enrolled in the same undergraduate college credit course more than twice shall pay matriculation at $100 \%$ of the full cost of instruction (Non-Florida Resident rates).

## Academic Standing

All academic actions are shown on grade reports and transcripts. The action is generated due to course completion. Changing a course grade does not necessarily change academic action. An exception can be made when an error is committed and is so stated by the instructor on the "Change of Grade Request Form."

## Academic

## Action taken when a student's UCF

Probation: cumulative GPA drops below 2.0. Academic Probation will continue until the current semester/term and UCF cumulative GPA reach 2.0 or better.

Disqualified A student on Academic Probation is
(First Suspension) disqualified upon failure to achieve a 2.0 GPA during the subsequent semester/term. A student who is disqualified may not enroll at the University for two semesters following disqualification. Readmission after two semesters is not automatic. A disqualified student
must submit an application for readmission supported by a letter indicating the reasons for previous academic difficulties and plans for achieving a GPA of 2.0 or better. The total record will be reviewed and action on readmission will be taken by the University Registrar. When the University Registrar can not make a favorable decision, cases will be referred to the Admissions and Standards Committee.

Exclusion (Second A student readmitted following disquali-
Suspension or more): fication who fails to achieve a minimum 2.0 GPA is excluded from the University. Exclusion is most serious and readmission will not be considered prior to a minimum suspension period of one year.

Good Standing Students are in good standing as long as their academic action does not place them on disqualification or exclusion.

Readmission: If a student has dropped out of the University for any reason, he or she must reapply on the appropriate form.

First-time-in-college students may be admitted on Academic Probation at the discretion of the Undergraduate Admissions Office or the Admissions and Standards Committee. Transfer students may be admitted on academic probation at the discretion of the Undergraduate Admissions Office or the Admissions and Standards Committee. Academic probation is intended to inform students making unsatisfactory progress of their need to alter study habits and to seek additional counseling. Early recognition will indicate to the student the possible jeopardy to academic goals and will also allow an opportunity to demonstrate acceptable performance.

## Withdrawal Policy

A student may withdraw on POLARIS, by visiting the Registrar's Office, the college advising offices, or area campus records office. Students may also withdraw by fax at 407-823-5652, or letter, which must be time stamped or postmarked before the withdrawal deadline. The official date of withdrawal is the date the withdrawal is received by the University.

A student may withdraw from a class and receive the notation of " W " until the end of the eighth week of any semester or until the midpoint of any summer session in the Registrar's Office (MH 161) or on POLARIS at https://polaris.ucf.edu.

A student never is automatically withdrawn from a class for not attending, nor can an instructor withdraw a student from a class. Upon request, however, the instructor will provide the student with an assessment of the student's performance in the course prior to the last day of withdrawal.

No withdrawal is permitted after the deadline except in extraordinary circumstances such as serious medical problems. Unsatisfactory academic performance is not an acceptable reason for withdrawal after the deadline. Students who need to petition for a late withdrawal should consult Academic Services (MH 210).

At the time of the request, Academic Services will ascertain from the instructor whether the student was passing or failing the course. If the student was passing, a punitive "WP" will be recorded on the student's permanent record; if failing, a "WF" will be entered. Medical and late withdrawals normally are for all courses taken in the semester.

Students who seek late withdrawal because they are ill must apply for the withdrawal within six months of the term from which the withdrawal is sought. Students seeking a late withdrawal because of medical conditions must follow the medical withdrawal procedure. The student's physician provides the University with the appropriate medical information, using the forms available in the Office of Academic Services. A medical withdrawal must be for all classes in the term.

If a medical withdrawal is approved, a "WM" will be recorded for each course. Students who receive a medical withdrawal may be placed on hold until the University can determine that the student is ready to return. If a medical withdrawal is not approved, the request may be approved as a late withdrawal, and grades of "WP" or "WF" will be recorded.

A grade of "WF" will affect the calculation of the student's grade point average (the procedure used for calculating is defined in the 'Grade System' earlier in this section).

If a student withdraws from a course while an alleged academically dishonest act is under consideration, and the case is not subsequently resolved in favor of the student, the University reserves the right to assign the appropriate grade for the course.

## Academic Honors

## President's Honor Roll Certificate

The President's Honor Roll Certificate is awarded in recognition of scholastic honors to regular undergraduate students who register for and complete 12 or more hours, excluding satisfactory/unsatisfactory course work, and who maintain a 4.0 GPA with no "I" or "U" grades for the given semester/term or who complete 15 semester hours during any two consecutive semesters/term at UCF with no more than 11 hours in any one semester/term, excluding satisfactory/unsatisfactory work, and who maintain a 4.0 GPA for the two semesters/term with no "I" or "U" grades. Hours utilized in the awarding of a President's Honor Roll Certificate may not be utilized in the determination of a subsequent certificate.

## Dean's List

The Dean's List is compiled in recognition of scholastic honors for students who earn a minimum 3.4 GPA with no grade less than "C" (2.0) and no "I" or "U" grades during a semester/term. To be eligible for the Dean's List, students must register for and complete a minimum of 12 credit hours in a Fall or Spring semester or nine credit hours in a Summer term at UCF.

## Baccalaureate Honors

The University shall confer baccalaureate honors recognition on those students who have completed a minimum of 48 semester hours at UCF and who:

1) Attain an overall grade point average that is in the upper 10 percent of the range established by all students graduating in the same college/school during the previous two years;
2) Attain at least a 3.2 overall grade point average;
3) Honors awarded will be:

Summa Cum Laude for those students in the upper 2.5 percent;

Magna Cum Laude for those students in the upper five percent, but not in the upper 2.5 percent;

Cum Laude for those students in the upper 10 percent, but not in the upper five percent.

Records for the semester of graduation are incomplete at the time the Commencement Program is printed. Identification of these students at graduation therefore is presumptive of honors and not

## Earning Credit While Disqualified or Excluded

Students disqualified or excluded while a freshman or sophomore who subsequently receive an A.A. or a specific statewide articulated A.S. degree with a minimum "C" average ( 2.0 GPA ) on all college work attempted from a Florida public community college may be readmitted to the University with credit earned in accordance with standard University policies. Students who attend other colleges or universities following disqualification will be classified as transfer students and their readmission will be based on their total educational record.

## Admissions and Standards Committee

The Admissions and Standards Committee is a Reporting Committee of Faculty Senate. Its membership includes faculty and non-faculty representatives of the Faculty Senate, several academic colleges, the Division of Student Development and Enrollment Services, and Student Government Association. The Admissions and Standards Committee meets regularly to consider petitions from: 1) persons denied admission; 2) former students seeking Readmission as an Exception to University Policy following academic disqualification or exclusion; 3) students requesting to continue in school, but who have failed to meet CLAST requirements; and 4) students appealing prior decisions rendered by the Admissions and Standards Committee.

## Right of Appeal

Each person whose petition has been denied by the Admissions and Standards Committee may request that the Committee reconsider its original decision regarding such petition but the Admissions and Standards Committee is not obliged to grant such request. To appeal any Admissions and Standards Committee decision under this policy, the appellant must submit a written request that the Admissions and Standards Committee consider reviewing its original decision in light of new and compelling evidence that was not known or reasonably could not have been known by the appellant at the time the original petition was considered. The new and compelling evidence must be documented to the satisfaction of the Admissions and Standards Committee, and such documentation must be attached to the appeal.

The appeal should be limited in length to one typed page; it must be signed, dated, and include the
appellant's Social Security Number. Appeals that do not satisfy the content and format requirements defined in this section will not be considered by the Admissions and Standards Committee.

The appeal will be submitted to:
Chair, Admissions and Standards Committee
Division of Student Development and Enrollment Services
University of Central Florida
4000 Central Florida Blvd.
Millican Hall 282
Orlando, FL 32816

Upon receipt of both the appeal and all required supporting documentation, the Admissions and Standards Committee will consider whether or not to review its original decision. The Admissions and Standards Committee will advise the appellant of its decision, which is final.

## Readmission

A student must submit a "Readmission Application Form" to the Registrar's Office if the student has been academically suspended from UCF (see 'Readmission Following Suspension' below) or if the student has not enrolled at UCF for two consecutive semesters (not including the Summer term). The Readmission application is available at the Registrar's Office (MH 161) or on the web at http://www.registrar.ucf.edu. Deadlines for submitting applications can be found in the "Academic Calendar" of this Undergraduate Catalog. The application deadline for "Readmission as an Exception to University Policy" is as follows: for Summer, March 15; for Fall, June 15; and for Spring, October 15.

If the student has attended another regionally-accredited institution since leaving UCF, the student must request an official transcript be sent to the Registrar's Office. If the student was previously admitted to a UCF limited-access program, the student will be placed in pending status for that major and must apply to the college for readmission to the program. If the student has resided outside of the State of Florida for at least one year, the student may be required to complete the "Florida Residency Affidavit." Plus or minus grades will transfer for course work earned Fall 2001 and after using UCF's grade point system.

Any readmitted student whose UCF cumulative GPA is less than 2.0 at the time of the last enrollment at the University will be readmitted on "Academic Probation." All applicants seeking readmission who have attempted course work at another regionally-accredited institution since last attending the University will be required to be in "Good Standing" (minimum 2.0 GPA) at the institution attended with no allowance for grade forgiveness and must be eligible to return to the last institution attended.

A student who has previously attended UCF as "degree-seeking" and who desires to pursue a second bachelor's degree must apply by completing the "Readmission Application Form." If the student still is actively enrolled in the University, the student will not be subject to the readmission process and the enrollment status will be updated to "second-degree seeking."

## Readmission Following Suspension

A student who has been academically suspended by UCF and who has completed the academic suspension period may petition for reinstatement by submitting the "Readmission Application Form" to the Registrar's Office. The petitioning student must satisfy the following requirements before a decision will be made. The student must:

1. Submit a written statement indicating the reason for the previous academic difficulties and a plan for ensuring success in future semesters:
a) The written statement should be limited in length to one typed page; it must be signed and dated, and must include the student's social security number;
b) A "Readmission Application Form" not accompanied by the required written statement will not be reviewed, nor will it be forwarded to the Admissions and Standards Committee;
2. Contact the major's department/school/college to establish a plan to complete the program of study. The student must obtain the department/school/college's favorable recommendation of this plan in writing;
3. Submit transcripts from all other schools attended during suspension (if applicable).

The Registrar's Office will process the readmission petition only when it receives all of the documents listed above. The Registrar's Office may elect to forward the student's petition to the Admissions and Standards Committee. If the Admissions and Standards Committee reviews the file, the student will be afforded the opportunity to personally appear before the Committee before it renders a decision.

## Readmission Prior to Completion of the Required Suspension

A student who has been academically suspended by UCF and who has not completed the academic suspension period may petition for reinstatement by submitting the "Application for Readmission as an Exception to University Policy Form" to the Registrar's Office. The Registrar's Office will forward all petitions directly to the Admissions and Standards Committee. The petitioning student must satisfy the following requirements before the Registrar's Office will forward the request to the Committee. The student must:

1. Submit a written statement indicating the reasons for the previous academic difficulties and a plan for ensuring success in future semesters/terms. This statement must provide significant information supporting the student's request to readmit prior to completing the full suspension. The Committee will approve the request only if the information provided indicates that the reasons for the student's poor academic performance were beyond the student's control:
a) The written statement should be limited in length to one typed page, it must be signed, dated, and include the student's social security number;
b) A "readmission prior to completion of suspension" petition not accompanied by the required written statement will not be forwarded to the Admissions and Standards Committee;
2. Contact the major's department/school/college to establish a plan to complete the program of study. The student must obtain the department/school/college's favorable recommendation of this plan in writing;
3. Submit transcripts from all other schools attended during suspension (if applicable);
4. Order six official copies of the UCF transcript. The Registrar's Office will forward these transcripts to the Admissions and Standards Committee.

Students should ensure that the written statement and supporting documents contain all information required to support the petition for early reinstatement as they are not afforded a personal appearance before the Committee.

## Time-Shortened Degree (TSD) Opportunities

The University of Central Florida provides a number of options by which students may shorten the time required to complete the baccalaureate degree. These options permit the University to recognize high levels of academic achievement and acquisition of knowledge prior to or during attendance at the University. Procedures that may be used include the Advanced Placement Program (AP), the College Level Examination Program (CLEP), University Course Credit by Examination, DANTES, and the International Baccalaureate. A maximum of 45 semester hours in any combination of extension, AP, IB, correspondence, CLEP, Armed Forces Service School Credits, and University Credit by Examination will be accepted by the University for application toward an undergraduate degree.

## Advanced Placement Program (AP)

Students who have participated in the Advanced Placement Program in high school and have received a score of three, four, or five on the national examinations will receive college credit in the appropriate subject areas. Students should consult their high school guidance counselor or write to the Educational Testing Service, Princeton, NJ 08540, for additional information.

## Advanced Placement Examinations

## Passing Sem. UCF

| AP Examinations | Score | Hours Courses |  |
| :--- | :---: | :---: | :--- |
| Biology | $3-5$ | 3 | BSC 1005 |
| Calculus AB | $3-5$ | 8 | MAC 2311 \& MAC 2312 |
| Calculus BC | $3-5$ | 12 | MAC 2311, 2312, \& 2313 |
| Chemistry | $3-4$ | 4 | CHM 2045C |

57 CHM 2045C \& 2046
Classics 3-5 3 HUM 2211
Comp. Gov. \& Politics $\quad 3-5 \quad 3$ CPO 3103
Computer Sci A 4-5 3 CGS 1060C
Computer Sci AB 4-5 3 no direct equivalent
Eng Lang \& Comp $3 \quad 3$ ENC 1101
4-5 6 ENC $1101 \& 1102$
Eng Lit \& Comp 33 LIT 2110
4-5 6 LIT 2110 \& ENC 1101
Environment Science 3-5 3 BSC 1050
European History $3-5 \quad 3$ EUH 2000
French Language $3 \quad 3$ FRE 3420
4-5 6 FRE 3420 \& gen. elective

| French Literature | 3 | 3 | FRW 3100 |  |
| :--- | :---: | :---: | :---: | :---: |
| $4-5$ | 6 | FRW | $3100 \& 3101$ |  |
| German | 3 | 3 | GER 1120 |  |


| 4-5 | 6 | GER 1120 \& gen. elective |  |
| :--- | :---: | :---: | :---: |
| History of Art | $3-4$ | 3 | ARH 2050 |
|  | 5 | 6 | ARH 2050 \& ARH 2051 |


| Latin (Virgil) | $3-5$ | 3 | no direct equivalent |
| :--- | :---: | :---: | :--- |
| Latin Literature | $3-5$ | 3 | no direct equivalent |
| Macroeconomics | $3-5$ | 3 | ECO 2013 |
| Microeconomics | $3-5$ | 3 | ECO 2023 |
| Music Theory | $3-5$ | 4 | MUT 1111\& 1241 |
| Physics B | 3 | 3 | PSC 1121 |

4-5 3 PHY 2053

| Physics C | $3-4$ | 4 | PHY 2053C |
| :--- | :--- | :--- | :--- |
| (Mechanics) | 5 | 3 | PHY 2048 |
| Physics C | $3-4$ | 4 | PHY 2054C |
| (Electricity and | 5 | 3 | PHY 2049 |

Magnetism)
Psychology
3-5 3 PSY 2013
$\begin{array}{llll}\text { Spanish Language } & 3 & 3 & \text { SPN } 1120\end{array}$

4-5 6 SPN 1120 \& gen. elective
Spanish Literature 3 no direct equivalent
4-5 6 no direct equivalent
Studio Art (General) 3-5 3-6 To be assigned by Dept.
Studio Art (Drawing) 3-5 3-6 To be assigned by Dept.
U.S. Gov. \& Politics $3-5 \quad 3$ POS 2041
U.S. History $\quad 3-5 \quad 3$ AMH 2010

## College Level Examination Program (CLEP)

Credit is awarded for examinations taken under the CLEP program provided the score obtained is at the 50 th percentile or above on the National Sophomore CLEP norms. CLEP credit may be earned by the following methods C CLEP general examinations, CLEP general examination subtests, and CLEP subject examinations. Successful completion of CLEP examinations means performance at or above the minimum qualifying score. CLEP credit cannot be used to reduce a grade point deficiency. For example, CLEP cannot be substituted for a grade awarded for a previously completed course. CLEP may not be used to fulfill the senior institution requirements.

Awarding of CLEP credit is subject to the conditions listed below.

- Credit may be awarded in the CLEP general examination, CLEP general subtest area, or CLEP subject examination area, provided the student: a) is not within 60 semester hours of graduation; $b$ ) has not previously received comparable college course credit in the CLEP examination area; c) does not receive comparable college credit in the CLEP examination area in the same semester the examination is taken or in a subsequent semester; d) has not previously completed nor received credit by UCF (transfer or otherwise) in a more advanced course in the examination area; and e) does not complete nor receive credit by UCF (transfer or otherwise) in a more advanced course during the semester in which the CLEP examination is taken.

Partial credit may be awarded in Humanities and Social Science-History general examinations to students who have course duplication in one subtest area but not in the other subtest area. For example, a student who has completed Humanities but has not completed Introductory Literature or a more advanced literature course would be eligible to receive credit in the literature subtest area, provided that he/she receives a satisfactory total score and a satisfactory subtest score.

The following table provides information related to the CLEP general examination areas and subtest areas for which credit may be awarded. In addition, this table delineates the number of credit hours per examination, and the minimum qualifying score. A table also is provided that contains information about CLEP subject examinations. The table delineates CLEP subject examinations that are available, qualifying scores for each examination, the UCF course for which each examination can substitute, and semester hours that will be awarded.

## CLEP General Examinations

Qualifying percentile on CLEP General Examinations earn only general (lower division) elective credit.

## Semester

## CLEP General Examination

English Composition with Essay* 6
Humanities
Mathematics 6

Natural Science
Biological Science 3
Physical Science 3

Social Science
6
*The General Examination in English Composition with Essay is not given in July or August.

## CLEP Subject Examinations

|  | Sem. | UCF |
| :--- | :---: | :--- |
| CLEP Subject Exam | Hours | Courses |
| Afro-American History | 3 | None |
| American Government | 3 | POS 2041 |
| American History I*** | 3 | AMH 2010 |
| American History II*** | 3 | AMH 2020 |
| American Literature*** | 6 | AML 3031 \& AML 3051 |
| Analysis \& Interp Lit*** | 6 | ENC 1101 \& LIT 2000 |
| Calculus w/Elem Functions | 4 | MAC 2311 |
| Calculus w/Analytic Geo | 3 | MAC 2253 |
| Clinical Chemistry** | 4 | MLS 4630 |
| College Algebra | 3 | MAC 1105 |
| College Algebra \& Trig | 3 | MAC 1114 |
| Duplicate Exam-Subj: Trig |  |  |


| College Comp w/Essay*** | 6 | ENC 1101 \& ENC 1102 |
| :---: | :---: | :---: |
| Info Sys \& Comp Apps | 3 | CGS 1060C |
| Educational Psychology | 3 | None |
| English Literature*** | 6 | ENL 2012 or ENL 2021 |
| Freshmen English |  |  |
| w/Essay*** | 6 | ENC 1101 \& ENC 1102 |
| General Biology | 6 | BSC 1005 |
| General Chemistry | 6 | CHM 1020 \& 1032 or CHS 1440 |
| General Psychology | 3 | PSY 2013 |
| Hematology** | 4 | MLS 3305 |
| Human Growth and |  |  |
| Development | 3 | None |
| Immunohematology** | 4 | MLS 4550 |
| Introduction to Accounting | 3 | ACG 2001 |
| Intro to Business Law | 6 | None |
| Intro to Management | 3 | None |
| Intro to Macroeconomics | 3 | ECO 2013 |
| Intro to Microeconomics | 3 | ECO 2023 |
| Intro to Marketing | 3 | MAR 3023 |
| Intro to Sociology | 6 | SYG 2000 |
| Language: |  | nguage Note" below |
| French |  |  |
| German |  |  |
| Spanish |  |  |
| Microbiology (clinical)** | 6 | MLS 4405 |
| Programming - |  |  |
| FORTRAN IV | 3 | COP 2200 |
| Subj: Comp and Data Proc |  |  |


| Trigonometry | 3 | MAC 1114 |
| :--- | :---: | :---: |
| Western Civilization I ${ }^{* * *}$ | 3 | EUH 2000 |
| Western Civilization II*** | 3 | EUH 2001 |

**Each student must also satisfactorily complete a lab and an essay exam. Both exams will be given by the College of Health and Public Affairs.
***Satisfactory completion of these exams does not reduce the 24,000 word requirement of the Gordon Rule.

Language Note: For French, German, and Spanish subject examinations, a 50\% percentile score earns eight credit hours that substitute for FRE/GER/SPN 1120 and 1121. For French, a 52\% percentile score earns twelve credit hours that substitute for FRE 1120, 1121, and 2200. For German, a $63 \%$ percentile score earns twelve credit hours that substitute for GER 1120, 1121, and 2200. For Spanish, a $54 \%$ percentile score earns twelve credit hours that substitute for SPN 1120, 1121, and 2230.

## Credit by Examination

Regularly enrolled (excludes transient and non-degree) undergraduate students at the University of Central Florida may obtain credit for specific University courses through departmental examinations. A student who believes he or she has acquired the knowledge and/or skills of a specific University course should consult his or her advisor and the chair of the department in which the course is offered to arrange for an examination. Degree credit will be awarded for those courses successfully completed by departmental examination. Credit by examination may not be used to reduce the 30 semester hours residency requirement. Credit by examination will not be given for any course lower in content than courses in the same discipline in which students are currently enrolled or which they have already completed. Permission to take an examination is approved by the chair of the department and the dean of the college in which the course is offered.

## DANTES Examination Credit

The University will award credit to students presenting qualifying scores in DANTES examinations for the five subject areas identified below.

## Qual. Semester UCF

Examination Score Hours Courses

| Astronomy | 50 | 3 | AST 2002 |
| :--- | :---: | :---: | :---: |
| Beginning German I | 50 | 4 | GER 1120 |
| Beginning German II | 50 | 4 | GER 1121 |
| General Anthropology | 50 | 3 | ANT 2000 |
| Introduction to |  |  |  |
| Computers/Basic | 50 | 3 | CGS 1060C |

## International Baccalaureate Program

Students who have participated in the International Baccalaureate program in high school may receive a maximum of 30 hours of credit for scores of four or higher in the subsidiary and higher level program areas.
Subject Area Qual. Sem. UCF

Score Hours Course(s)
Art Design
Higher Level 43 ART 2300C
5,6,7 6 ART 2300C \& ART 2201C
Biology
Subsidiary \& Higher Level $4 \quad 3$ BSC 1005
5,6,7 6 BSC 1005 \& BOT 1000
Chemistry
Subsidiary \& Higher Level $4 \quad 3$ CHM 1020
5,6,7 6 CHM 1020 \& CHM 1032
Computing Studies
Subsidiary \& Higher Level $4 \quad 3$ COP 2213
5,6,7 7 COP $2213 \&$ COP 2500
Economics
Subsidiary \& Higher Level 43 ECO 1000

5,6,7 6 ECO 2013 \& ECO 2023
English 43 ENC 1101
5,6,7 6 ENC 1101 \& LIT 2110
Environmental Systems 4,5,6,7 3 No direct equivalent
Foreign Languages B
Higher Level
French, Spanish, German 4,5,6,7 3 FRE 3420, SPN 3420, GER 3420
Other Languages B 4,5,6,7 3 No direct equivalent
Subsidiary Level
French, Spanish
Other Languages
4,5,6,7 3 FRW 3100, SPW 3100
4,5,6,7 3 No direct equivalent
Geography

| Higher Level | $4,5,6,7$ | 6 |
| :--- | :--- | :--- |
| GEO $1200 \&$ GEO 2370 |  |  |
| Subsidiary Level | $4,5,6,7$ | 3 | GEO 2370

History
Subsidiary \& Higher Level 43 WOH 2022
5,6,7 6 WOH 2012 \& WOH 2022
Info Tech in Global Society 4,5,6,7 3 No direct equivalent
Mathematics
Subsidiary Level
4,5,6,7 3 MAC 1105

| Mathematical Methods | 4 | 4 | MAC 2233 |
| :--- | :--- | :--- | :--- |
| Subsidiary Level | $5,6,7$ | 4 | MAC 2311 |

Mathematics
Higher Level $4 \quad 4 \quad$ MAC 2311
5,6,7 8 MAC $2311 \&$ MAC 2312
Music

| Subsidiary \& Higher Level 4,5,6,7 3 |  | MUL 2010 |
| :---: | :---: | :---: |
| 5,6,7 6 MUL 2010 \& MUL 2906 | L 2906 |  |
| Philosophy |  |  |
| Subsidiary \& Higher Level 4 | 43 | PHI 2010 |
| 5,6,7 6 PHI 2010 \& PHI 2600 | 2600 |  |
| Physics |  |  |
| Higher Level 4,5,6,7 | 4,5,6,7 8 | PHY 2053C \& PHY 2054C |
| Subsidiary Level 4,5,6,7 | 4,5,6,7 8 | PHY 2053C \& PHY 2054C |
| Psychology |  |  |
| Subsidiary \& Higher Level 4 | 43 | PSY 2013 |
| 5,6,7 6 PSY 2013 \& PSY 2906 | 2906 |  |
| Social Anthropology |  |  |
| Higher Level 4 | 43 | ANT 2000 |
| 5,6,7 6 ANT 2000 \& ANT 2906 |  |  |
| Subsidiary Level 4 | 43 | ANT 2000 |
| 5,6,7 6 ANT 2000 \& ANT 2906 |  |  |
| Theatre Arts |  |  |
| Subsidiary \& Higher Level 4 | 43 | THE 1020 |
| 5,6,7 6 THE 1020 \& THE 2906 | E 2906 |  |

## Admissions and Catalogs

Special Academic Programs

and Research Institutes

# International Studies and Programs 

Director: Mathilda E. Harris; 407-882-2300; Fax: 407-275-4386;Research Pavilion, Suite 263, P.O. Box 163105, Orlando, FL 32816-3105; http://pegasus.cc.ucf.edu/~intlstud/

One of the University of Central Florida's five general goals is to internationalize the campus by providing an international focus to its curricula and research programs, increasing the number and diversity of international students, and fostering cross-cultural activities. UCF offers a variety of programs that support the goal to internationalize the University by educating students for global competence via internationalized courses, language offerings, internships and work experiences in internationally related areas. UCF also offers many types of study-abroad programs that meet the general education requirements and the needs of majors in all colleges. The ultimate goal of global education is to create a trans-national understanding of social, economic, cultural, and political realities of the 21st Century.

The Office of International Studies (OIS) is a University level office that serves as a clearinghouse for all international programs and coordinates such programs within the University. The mission of the OIS is to create an environment that facilitates the identification, development, promotion, coordination, and support of high quality international activities related to the academic mission of UCF. The on-going development of the international dimension at UCF will be realized through the implementation of goals and objectives related to the curriculum, faculty development, policies and planning, academic support, students, the community, funding, and external agencies.

The general goals stated in the UCF Five-Year Plan for International Studies are to:

Infuse the curriculum with international content that will teach students to think about themselves and their profession within an interdependent world context and prepare them to compete in a global market;

Increase the pool of faculty with international expertise in order to have an impact upon all facets of the academic experience at UCF;

- Create an environment that encourages the development and continuation of international programs through appropriate policies;

Identify and improve all components of academic support that are integral to internationalizing UCF;

Offer students an educational experience that will prepare them to think globally and to be citizens in an interdependent and diverse world;

Build strong linkages between the international dimensions of UCF and the Orlando community;
Develop additional methods of funding international programs and activities at UCF; and
Monitor the activities of, and develop contacts with, external agencies relevant to the international mission of the University.

## Study Abroad Programs

UCF offers a large number of study abroad programs that relate to an array of the academic and experiential interests of students. Students are encouraged to study abroad because the global environment and marketplace will increasingly demand knowledgeable and trained persons who are globally competent.

## Summer Study Abroad Programs

Summer study abroad programs currently are offered in the following countries and areas: England, College of Health and Public Affairs, Communicative Disorders; France, College of Arts and Sciences, Music Department; Germany, College of Arts \& Sciences, Foreign Languages and Literatures (two semesters of German required); Italy, College of Arts \& Sciences, Foreign Languages and Literatures; Quebec, College of Arts \& Sciences, Foreign Languages and Literatures (two semesters of French required); Scotland, College of Arts \& Sciences, Art Department; South Africa, College of Health and Public Affairs, School of Social Work; and Spain, College of Arts and Sciences, Department of Foreign Languages and Literatures (one semester of Spanish required). A Nursing program in England takes place during Spring Break.

## Semester and Academic Year Student Exchanges

Semester and academic year student exchange programs are open to qualifying juniors and seniors who would like to have a more extensive experience abroad. These are located in China, Qingdao University; France, University of Angers; England, Northampton College University; Canada, University of Windsor; Germany, University of Koblenz; Finland, South Carelia Polytechnic in Lappeenranta; Japan, University of Meikai; Jordan, Princess Sumaya University, College for Technology; and Sweden, Universities of Jonkoping, Mallardalen, and Dalarna.

## State of Florida University System Programs

The State University System (SUS) programs offer high quality and diverse study abroad experiences for students throughout the State of Florida. This gives the student the opportunity to meet students from other Florida universities and to participate in additional programs not offered directly by UCF. The SUS-wide study abroad programs are located in England, Italy, and Costa Rica.

## National Student Exchange Program

UCF's membership in the National Student Exchange (NSE) affords qualifying juniors and seniors the opportunity to spend one semester or an entire academic year as exchange students at any of the 150 NSE membership institutions in the U.S. In many cases, students on NSE exchange also may study at one of the more than 200 study abroad sites associated with individual NSE membership institutions. This adds a wide array of additional opportunities to UCF's own student exchanges and programs abroad.

The Office of International Studies can supply students with additional information on other study abroad programs worldwide. For additional information on all study abroad opportunities, please contact the UCF Office of International Studies; 407-882-2300.

## Cooperative Education

Director: Sheri Dressler; PH 208; 407-823-2667

The Cooperative Education Program (Co-op) provides opportunities for students to gain professional practice by combining on-campus classroom study with real-world work experience. Co-op is an academic program and an integral part of the curriculum at UCF, available to students on all campuses
in all colleges. The mission of the program is to provide a means for students to develop academic, professional, and personal competencies and to create meaningful and productive educational partnerships with academic departments and employers locally, nationally, and internationally.

Co-op students participate for multiple terms in structured, progressively responsible, paid work assignments in industry, directly related to their major or career goal. They alternate periods of work and study, either by alternating full-time semesters of work and school, or working part time while studying full time. Co-op provides a means for students to test career goals, improve academic performance, develop discipline-related personal and professional skills, generate income, and increase prospects for full-time employment upon graduation. The Co-op Program also supports internships in collaboration with academic departments. Internships are major-related work experiences that provide similar benefits to co-op opportunities, but generally are one term in length and occur toward the end of a student's academic program.

To allow for multiple semester participation, students should apply as early as possible in their program of study. For both co-op and internship assignments, students should apply one semester before they want to participate to allow time to obtain an appropriate learning opportunity.

## Division of Continuing Education

Assistant Vice President/Director:J. Patrick Wagner; 12424 Research Parkway, Suite 265, Orlando, FL 32826;

407-207-4920; Fax: 407-207-4930

The Division of Continuing Education is the unit within Academic Affairs which coordinates, in collaboration with colleges, the UCF continuing education programs. Programs include non-fundable credit courses and an array of noncredit programs including conferences, institutes, short courses, workshops, seminars, and camps. Many of these programs are awarded continuing education units.

## Center for Multilingual Multicultural Studies

Associate Director: Myrna Creasman; TR 547; 407-823-5515

Using contemporary teaching methodology and computer-assisted instruction, the Center for Multilingual Multicultural Studies provides quality English language instruction for international students. Four levels of instruction are offered which range from beginning to advanced, and special attention is given to preparing students for academic course work in their specialized fields of study. Full-time students enrolled at the advanced level may elect to take courses as non-degree-seeking
students while enrolled in the Intensive English program. Students are required to take an entry placement test to determine their level of proficiency. Student (F-1) visas are extended to qualified applicants. The Center also offers English for Special Purposes for international business personnel.

The Center for Multilingual Multicultural Studies at University of Central Florida is accredited by the Commission on English Language Program Accreditation (CEA) and agrees to uphold the CEA standards for English Language Programs. For further infor-mation about this accreditation, please contact the Commission of English Language Program, Accreditation, 700 S. Washington Street, Suite 200, Alexandria, VA 22314, (703) 518-2480.

## Off-Campus College Credit Programs

Director:Elizabeth Baab; 12424 Research Parkway, Suite 265, Orlando, FL 32826-3269; 407-207-4916; Fax: 407-207-4925

Off-Campus College Credit Programs assists in the administration and coordination of approved partnerships and other specially formatted credit courses and degree programs for the academic colleges. Registration may be conducted on site at the various business, educational, or governmental locations served or via the web for student convenience. Course registration for non-admitted students does not constitute regular admission to the University.

## Institutes and Centers for Research

## Center for Applied Human Factors in Aviation (CAHFA)

Director and Chief Scientist: Jefferson M. Koonce;
407-823-1011; Fax: 407-823-5862

The Center for Applied Human Factors in Aviation (CAHFA) has as its mission the enhancement of safety in the nation's airspace system through applied human factors research, systems design, and training strategies. Chartered in 1990, CAHFA is a research consortium established between UCF and Charter partner Embry-Riddle Aeronautical University, Daytona Beach, Florida. CAHFA's professional staff maintains offices on both campuses. The complimentary strengths of the two universities are combined to create a research resource that is without peer for solving aeronautical human factors problems. CAHFA research initiatives are targeted to significantly reduce human factors related accidents and incidents by determining the efficacy of and by developing strategies for achieving improvements in human performance.

# Center for Economic Education 

Director:Robert L. Pennington; BA 325; 407-823-2870

The Center for Economic Education strives to increase public knowledge of economic principles and their applications in daily life. Researchers at the Center develop, collect, and distribute economic educational materials. They also consult with and provide instruction to area schools (K-12), community colleges, and community organizations. Instruction focuses on the principles of economics and their use in making rational economic decisions. Affiliated with the National Council on Economic Education and the Florida Council on Economic Education, the Center also conducts research in economic education.

## School of Optics/CREOL (Center for Research and Education in Optics and Lasers)

Interim Director:Eric Van Stryland; 407-823-6834;
Email: director@creol.ucf.edu; Web: http://www.creol.ucf.edu

The Center for Research and Education in Optics and Lasers (CREOL) is the State University System of Florida's Center of Excellence for research and education in optics, lasers, and photonics. It was established in 1986 to provide the highest quality education in optics and lasers, conduct scholarly fundamental and applied research, and aid in the development of Florida's high technology-based industries.

CREOL is integrated in the School of Optics and serves as its research arm. The School of Optics offers Masters (MS) and Doctoral (PH.D.) Degrees in Optics. The School of Optics/CREOL has become an internationally recognized institute with 23 faculty members, 21 Ph .D. level research scientists, and more than 100 graduate students. The faculty are recognized to be among the best in the optics/laser/photonics field with two thirds holding the rank of Fellow in major national and international professional societies. It is housed in a state-of-the-art 83,000-square-foot building dedicated to optics, photonics, and laser education and research on the main campus. This facility houses ninety research laboratories equipped with over $\$ 35$ million in state-of-the-art equipment.

The School of Optics/CREOL's research activities span the spectrum from basic science to prototype development. The faculty and research staff pursue joint research projects with industry, academia, and government laboratories, and are always seeking new opportunities to work with industry to expose students to the industrial environment and to help in technology transfer. Current research areas include: linear and nonlinear guided-wave optics and devices, high-speed photonics networks and telecommunications, solid state laser development, nonlinear optics, laser induced damage, quantum-well optoelectronics, photonic information processing, infrared systems, optical system
design, image analysis, virtual reality, medical imaging, diffractive optics, optical crystal growth and characterization, high intensity lasers, x-ray optics, EUV sources, optical glasses, laser materials processing, free-electron lasers, and light matter interaction. These programs are supported by over $\$ 5$ million of research grants and contracts from numerous federal and state agencies and industry.

Graduate assistantships, with stipends ranging from $\$ 15,000$ to $\$ 20,000$, are available to outstanding students pursuing graduate education in optics and photonics. Research training opportunities are also available to undergraduate students through the Research Experience for Undergraduates (REU) program sponsored by the National Science Foundation, and other research grants and contracts.

The School of Optics/CREOL has a very active Industrial Affiliate Program to facilitate strong cooperative relations with industry. The program provides industry with benefits of cutting-edge research and access to the expertise and facilities of the School. Faculty members are teaming with Florida-based small businesses to help them compete for federally sponsored Small Business Innovative Research (SBIR) programs. The program provides industry with effective ways to contribute to and sustain the research and teaching of laser and electro-optic technology.

Dick Pope, Sr. Institute for Tourism Studies

Director:Abraham Pizam; 407-823-6202

The mission of the Dick Pope Sr. Institute for Tourism Studies is to improve the quality of the tourism product and increase the benefits of tourism for the industry, the state, and the local community. To this end the institute is involved in a variety of research projects and educational programs.

The research includes the collection, development, and dissemination of information relevant to the tourism and hospitality industry in the areas of marketing, consumer behavior and visitor satisfaction, feasibility, economic, motivation, and forecasting. Some of the Institute's patrons include tourism promotion agencies at the state and local levels; tourism development commissions; professional associations; and private enterprises such as attractions, hotels, motels, food-service establishments, ground and air transportation companies, travel agencies and tour operators, and other related businesses. The Institute devotes significant efforts to educating the public about the tourism industry in Florida and internationally, and about its contribution to the social and economic welfare of the general public.

## Executive Development Center

Interim Director: Sylvia T. Caceres; 407-823-0082

The University of Central Florida College of Business Administration is proud to serve as a partner in executive education to the local, state, national, and international business communities. The Executive Development Center was established to provide leading executive education programs to both individuals and organizations.

The Center helps professionals from all industries become more dynamic leaders, more effective managers, and more valuable team members. Corporations benefit from participating in executive education programs by developing more productive and resourceful workforces that can meet the challenges of today's changing marketplace and tomorrow's opportunities.

The Center serves as a valuable resource in executive training and development by offering programs that address critical issues for managers and business leaders. These programs are offered in a variety of formats suitable for any individual or corporation through:

Conference services
Customized corporate programs
Executive MBA Program
Public enrollment programs

The UCF Executive Development Center has a strong commitment to the business community. Both small and large organizations find our programs to be contemporary, challenging, and effective.

## Florida Canada Linkage Institute

Director:Warren McHone; 407-823-5789; Fax: 407-823-3269

The Florida Canada Linkage Institute assists in extending the undergraduate and graduate education experience at the University of Central Florida through curricular and other dimensions that provide a culturally diverse education. The linkage institutes were created by the Florida Legislature to assist in the development of stronger economic and social ties between Florida and strategic foreign countries. Linkage is developed through promotion of expanded public/private dialogue on cooperative research and technical assistance, cultural exchange, enhancement of language training, and student/faculty exchange programs. culture, and trade between Canada and Florida. The institute serves the entire State University System. Persons interested in Canada or Canadian students studying in Florida are especially welcome to contact the institute offices at the University of Central Florida.

## Florida Eastern Europe Linkage Institute

The Florida Eastern European Linkage Institute (a Class II state-mandated activity) is a statewide effort hosted by the University of Central Florida in partnership with Lake Sumter Community College, and is designed to create and foster educational, commercial, cultural and social exchanges between the countries in central and eastern Europe and the State of Florida. The Institute, funded and administered through the Executive Office of the Governor and the Office of Academic Affairs and located in the College of Health and Public Affairs on the main campus, promotes the development of linkage through expanded public/private dialogues on cooperative research and technical assistance, cultural exchanges, the enhancement of language training, and student/faculty exchange programs. The institute administers the Out of State Tuition Fee Exemptions Program that is available for students from central and east European countries.

## Florida Institute of Government at the University of Central Florida

Director: Marilyn Crotty; 407-317-7745, Fax 407-317-7750.

The Institute of Government, an affiliate of the Florida Institute of Government, is part of the College of Health and Public Affairs and provides training and technical assistance to state and local government, governmental associations, and non-profit organizations. Training workshops, certification programs, conferences, seminars, applied research projects, citizen surveys, strategic planning, and organizational development programs are among the services offered by the Institute.

## Florida Solar Energy Center (FSEC)

Ken Sheinkopf, 1679 Clearlake Road, Cocoa FL 32922-5703; 321-638-1007; Fax: 321-638-1010.

The Florida Solar Energy Center is the largest and most active state-supported alternative energy research institute in the United States. Its facilities are located on the Cocoa campus of UCF at Brevard Community College. FSEC has gained national and international respect for its programs on photovoltaics, hydrogen from renewables, pollutant detoxification, photocatalytic processes, energy-efficient buildings, advanced cooling technologies, and solar thermal systems. It operates the only certified solar equipment testing program in the country. The yearly value of FSEC's external contracts exceeds its state support by a factor of two. The Center conducts seminars and workshops for teachers and professionals statewide, and its technical library boasts one of the nation's most extensive holdings on solar and alternative energy. FSEC's international Renewable Energy Training and Education Center is providing educational programs for government and industry leaders around the world.

# Florida Space Institute (FSI) 

Ron Phillips, FSI, Kennedy Space Center, FL 32899;
321-452-9834; Fax: 321-452-4842; E-mail: fsiccas@mail.ucf.edu; website: http://fsi.ucf.edu.

The Florida Space Institute (FSI) offers a unique approach to space education and research. Recognizing the substantial investment in launch facilities and human resources in Central Florida, the proposal to form a center that would merge industry, education, and research in a real-world environment became a reality. Created by a formal agreement among the following institutional partners: Brevard Community College, Embry Riddle Aeronautical University, Florida Institute of Technology, NASA-sponsored Florida Space Grant Consortium, Spaceport Florida, and the University of Central Florida, FSI brings a permanent academic presence to the space center. As the "gateway to the universe" FSI provides space education and research to undergraduate and graduate students at the USAF Cape Canaveral Air Station.

FSI research involves undergraduate and graduate students in real space problems within the existing space industry environment of the space center. This environment permits students and faculty to interact with space center engineers and to use the facilities of the space center. FSI research projects are primarily conducted in its facilities at Building AM at Cape Canaveral. Other facilities at KSC are used as needed and which are made available. Research projects conducted by the FSI university/college partners on their respective campuses are considered "normal" proprietary projects of that particular university/college even though the project may be space related.

## Institute for Simulation and Training (IST)

Executive Director:Dennis K. McBride; 3280 Progress Drive, Orlando, FL 32826-0544; 407-882-1300; Fax: 407-658-5059;

E-mail: dmcbride@ist.ucf.edu; Website: http://www.ist.ucf.edu

The Institute for Simulation and Training (IST) was established to conduct research and develop technology that advances the state of the art in affordable and effective simulation capabilities and training systems. Driven by a proven record of research achievement, IST has developed unique qualifications and is positioned to provide the enabling technologies and technical talent necessary for future simulation development. In April 1985 a State of Florida resolution recognized the institute as part of the Center of Excellence for Simulation and Training.

IST is located in the Central Florida Research Park, adjacent to the UCF campus. The park also is
home to the Army Simulation, Training and Instrumentation Command (STRICOM), the Naval Air Warfare Center Training Systems Division (NAWCTSD), and the Air Force Agency for Modeling and Simulation (AFAMS). The institute is one of 110 to 150 public and private entities specializing in simulation and training and located along the high tech corridor traversing the state from Tampa to Daytona Beach, the largest concentration of this expertise in the world.

IST's research staff of scientists, engineers, and students conducts basic and applied research for a broad range of training devices and programs. Research areas include:

Multi-resolution simulation
Computer generated forces
M\&S new application development
Training and education

Virtual environments
Computer graphics
Information technology
Human factors

Laboratories, work space, and administrative offices occupy nearly 38,000 square feet of floor space. Departments focus on applied research and technology, human systems integration, and information and learning technologies.

IST actively assists UCF in the development of simulation-related curricula. The university was the first in the nation to offer a master's degree in simulation systems and a multidisciplinary doctoral program is currently under development. IST pursues the incorporation of modeling and simulation concepts in projects and proposals mutually beneficial to the institute, UCF, and industry. The institute annually employs more than 80 graduate and undergraduate students in a variety of research and support positions. For many outstanding graduates, IST is a springboard to a career in the simulation industry.

The institute includes in its efforts the development of research projects with potential commercial applications and adaptation of military technology to civilian markets. IST communicates the results of its research through seminars, publications, and workshops. In cooperation with UCF and the University of South Florida, and with considerable participation from area corporations, IST researchers are helping to promote economic growth in the modeling and simulation industry along Florida's High Tech corridor.

## Institute of Statistics

Director:I. Ahmad; 407-823-2695.

The Institute of Statistics provides statistical consulting and analytical support to all areas of the University. The Institute makes valuable contributions to research by supporting non-statistical researchers with statistical consulting assistance during the planning of experiments and investigations, analysis of data, and the evaluation of results. The Institute also provides statistical support to various government agencies and private organizations.

## Institute for Technical Documentation

Director: Karla Kitalong; FA 307G; 407-823-6257.

The Institute for Technical Documentation offers a variety of services for client companies, including developing original technical documentation, translating documentation written in other languages, and providing seminars to assist clients in writing their own documentation. The Institute also provides seminars on writing more effective e-mail, memos, letters, policies and procedures, manuals, and reports. Experienced faculty, established facilities, and strong rapport with local industry enable the Institute to assist in a wide variety of documentation projects and seminars.

## Small Business Development Center (SBDC)

Director: Aloyse T. Polfer; University Tech Center, Suite 300, 12565 Research Parkway; 407-823-5554.

The Small Business Development Center (SBDC) is part of a statewide organization designed to promote economic development by responding to the needs of the small business community. The SBDC, located in the College of Business Administration at the University of Central Florida, is responsible for a geographic area including Orange, Osceola, Lake, Citrus, Volusia, Flagler, and Sumter counties. Regional centers located at Daytona Beach Community College, Brevard Community College, and Seminole Community College assist small business in those areas. Assistance is provided through workshops and individual counseling in the following areas:

Personnel
Bookkeeping
Business Tax
Franchising

Marketing
Sources of Financing
Product Innovation
Business Plan Development

Additional programs provide assistance to clients in the areas of government contracting, energy conservation, and international trade.

## Small Business Institute

Director: Ron Rubin; 407-823-2682

Business schools have for some years been interested in getting students out of the classroom and involved with real business problems rather than "textbook" situations. By sponsoring the Small Business Institute program, the University of Central Florida does not only satisfy this need, but at the same time provides free professional help to small businesses in need of managerial guidance.

The SBI program uses a team of senior-level undergraduate or graduate-level students who, under faculty supervision, provide management counseling and technical assistance to small business clients. Examples of these services are: general management audits, development of business plans, establishment of accounting systems, design of inventory systems, cost analysis, pricing strategies, and evaluation of alternative markets.

The major objective of the College of Business Administration at the University of Central Florida is to educate men and women for positions of productive responsibility in business and the professions. UCF's Small Business Institute program stresses analytic ability and the student's learning skills in recognizing and coping with change. The Small Business Institute program at the same time provides on-the-job experience and sound academic training for the student.
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Academic Degrees, Majors, and Minors

## Undergraduate Degrees

## Associate of Arts Degree

University of Central Florida students who satisfactorily complete 60 semester hours of acceptable college work may apply for an Associate of Arts degree. University requirements include achievement of a minimum UCF GPA of 2.0, fulfillment of the General Education Program requirements, and completion of the last 20 semester hours in residence at UCF. In addition, any student who desires to receive an A.A. degree must have satisfied the Gordon Rule requirement and passed the College Level Academic Skills Test.

The Associate of Arts degree is awarded only upon application. The application form may be obtained in Academic Services, MH 210 and should be completed by the end of the first week in the semester/term in which the Associate of Arts degree is to be awarded. A student may not be enrolled as a transient student in another institution during the semester/term in which the Associate of Arts degree is to be awarded. An Associate of Arts degree will not be awarded in the same term that the baccalaureate degree is to be awarded or in any term following the completion of the baccalaureate degree.

## Baccalaureate Degrees

The University offers the degrees of Bachelor of Arts, Bachelor of Engineering Technology, Bachelor of Fine Arts, Bachelor of Science, Bachelor of Science in Business Administration, Bachelor of Science in Education, Bachelor of Science in Engineering, Bachelor of Science in Nursing, and Bachelor of Science in Social Sciences. These degrees are available in the following Colleges with majors or areas of specialization as indicated:

## College of Arts and Sciences

Bachelor of Arts (B.A.)
Majors: Anthropology, Art, Digital Media, Economics, English, Foreign Languages Combination, Film, French, History, Humanities, Interpersonal Communication, Journalism, Liberal Arts, Liberal Studies, Music, Music Education, Organizational Communication, Philosophy, Political Science, Psychology, Radio-Television, Sociology, Spanish, Theatre

Bachelor of Fine Arts (B.F.A.)
Majors: Art, Theatre
Bachelor of Music Performance (B.M.)
Bachelor of Music Education (B.M.E.)
Bachelor of Science (B.S.)
Majors: Biology, Chemistry, Digital Media, Forensic Science, Liberal Studies, Mathematics, Physics, Psychology, Social Sciences (interdisciplinary), Statistics

## College of Business Administration

Bachelor of Science in Business Administration (B.S.B.A.)
Majors: Accounting, Economics, Finance, General Business Administration, International Business Tracks, Management, Management Information Systems, Marketing

## College of Education

Bachelor of Science (B.S.)
Majors: Art Education, Early Childhood Education, Elementary Education, English Language Arts Education, Exceptional Student Education, Foreign Language Education, Mathematics, Physical Education, Science Education, Social Science Education, Vocational Education and Industry Training.

## College of Engineering and Computer Science

Bachelor of Science
Majors: $\quad$ Aerospace Engineering (B.S.A.E.) , Civil Engineering (B.S.C.E.), Computer Engineering (B.S.Cp.E.), Computer Science (B.S.), Electrical Engineering (B.B.E.E.), Electrical Engineering Technology (B.S.E.E.T.), Engineering Technology (B.S.E.T.), Environmental Engineering (B.S.Env.E.), Industrial Engineering (B.S.I.E.), Information Systems Technology (B.S.), Information Technology (B.S.), and Mechanical Engineering (B.S.M.E.).

## College of Health and Public Affairs

Bachelor of Arts (B.A.)

Majors: Communicative Disorders, Criminal Justice, Legal Studies, Public Administration

Bachelor of Science (B.S.)
Majors: Cardiopulmonary Sciences, Communicative Disorders, Criminal Justice, Health Information Management, Health Sciences-Athletic Training, Health Sciences-Generalist Track, Health Services Administration, Legal Studies, Medical Laboratory Sciences, Molecular Biology and Microbiology, Public Administration, Radiologic Sciences

Bachelor of Science in Nursing (B.S.N.)
Major: $\quad$ Nursing
Bachelor of Social Work (B.S.W.)
Major: $\quad$ Social Work

## Rosen School of Hospitality Management

Bachelor of Science (B.S.)
Major: Hospitality Management

## Minors

A minor is a complement to a bachelor's degree program/major normally requiring at least 18 credit hours in a field other than the student's major. Minors in a limited number of programs have been authorized for certification with baccalaureate degrees. Minors must be indicated on the Intent to Graduate form and must be certified at the same time as the student's baccalaureate degree. Unless a second baccalaureate degree is earned, certification will not be made at a later time even if additional courses have been completed.

To graduate with a minor, the minor must be added to your SASS degree audit during the Early Registration period. Contact the college advising office offering the minor for more information. All graduation requirements must be from a single UCF catalog for which a student is eligible.

## Academic Minors

## College

\author{

Awarding Minor* <br> College of Arts \& <br> Sciences <br> Name of Minor <br> African American Studies, <br> American Studies, Judaic Studies, Latin American and Iberian Area <br> College of Business Business Administration (for non- <br> Administration Business Administration majors), Economics (for Business and non-Business majors), International Business (for Business majors only), Marketing (for Business and non-Business majors) <br> | College of Education | Exceptional Education |
| :--- | :--- |
| College of Engineering | Aerospace Studies, Military |
| and Computer Science | Science, Space Studies, Technology and Society |
| School of Electrical | Computer Science, Applied |
| Engineering and Computer | Computer Science, Computer |
| Science | Information Technology |
| College of Health and | Communicative Disorders, Criminal |
| Public Affairs | Justice, Gerontology, Health Sciences, Health Services Administration, | Legal Studies, Molecular Biology and Microbiology, Public

}

Administration

## School/Department

Awarding Minor*
Multidisciplinary
Department of Aerospace Studies

Department of Art
Department of Biology
Department of Chemistry

Name of Minor
Space Studies
Aerospace Studies (Air Force
ROTC)
Art History, P.A.V.E., Studio Arts
Biology
Chemistry

| Nicholson School of <br> Communication <br> Journalism | Interpersonal Communication, <br> Oepartment of English <br> Linguistics, Writing |
| :--- | :--- |
| Oepartment of Film | Technical Writing and Editing, Creative Writing, Literature, |
| Department of | Cinema Studies, Film Production |
| Foreign Languages | French, German, Italian, Russian, |
| Department of History | History |
| Rosen School of Hospitality Hospitality Management Literatures |  |
| Management |  |
| Department of Mathematics | Mathematics |
| Department of Military | Military Science (Army ROTC) |
| Science |  |
| Department of Music | Music |
| Department of Philosophy | Environmental Studies, Humanities, Philosophy, Religious Studies |
| Department of Physics | Physics |
| Department of Political | Asian Studies, Political Science, |
| Science | Political Science/Pre-Law |
| Department of Psychology | Clinical, Human Factors, Industrial/Organizational |
| Department of Sociology | Multicultural Anthropology, |
| and Anthropology | Sociology, Anthropology |
| Department of Statistics | Statistics |
| Department of Theatre | Theatre |
| *Contact the college/school/department for the requirements for each minor. |  |

## Graduate Programs

See description at the beginning of each college section. For further information on a particular
program or graduate fellowships, contact the departmental office in the respective college or see the Graduate Catalog.
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University of Central Florida
Orlando, Florida
(407) 823-2000

## The Honors College

Dean: Allyn MacLean Stearman; 202 Phillips Hall;
407-823-2076, Fax 407-823-6583
Associate Dean: Stuart A. Lilie
Director of Honors Student Services: Madi Dogariu
Director of Honors Advising: Melanie Woods
Director of Honors Student Development: Jayashree Shivamoggi
Director of Student Activities: TBA
http://pegasus.cc.ucf.edu/~honors/

The Honors College (THC) at UCF is designed to provide a challenging and exciting educational experience to academically talented students who have demonstrated an ability and desire to achieve scholarly excellence. THC also seeks students with particularly exceptional talents. It is committed to diversity in both the composition of its student body and the programs which it supports.

THC combines the atmosphere of a small college with the intellectual stimulation of a large research university. Honors students receive an education that prepares them to enter the best graduate and professional schools as well as distinguished careers in business and public service.

Honors classes are small, and course work crosses traditional disciplinary boundaries to encourage critical thinking. Beyond the classroom, special guest lecturers and presentations, field trips, and university-related service activities expand the horizons of Honors students.

Students in THC are actively involved in social activities and course programming. Honors students have access to the Honors reading room and computer lab, and to housing in Citrus Hall. They also have early registration privileges.

Students may pursue Honors through two distinct programs, University Honors and Honors in the

Major.

## University Honors

Admission to University Honors is granted by THC to qualified incoming freshmen by invitation. Students who seek admission to University Honors must apply directly to THC. It is the student's responsibility to obtain the appropriate Honors College admissions information from THC Office and to follow the procedures necessary to enter the program. Prospective Honors students and their parents are encouraged to visit with the Honors staff if they have questions.

Acceptance: A student who plans to enter THC and who is notified in writing of acceptance into University Honors must submit one-time, non-refundable membership dues of $\$ 75.00$. The membership dues should be sent to THC Office promptly to reserve one of the limited number of seats available each year. Once the student has completed the acceptance procedures, she or he will be provided information regarding Honors registration and orientation. The $\$ 75.00$ payment will normally be by check or money order made out to: UCF Foundation-Honors. If for any reason an applicant cannot make this payment, he or she should discuss this with the Director of Honors Student Services. No student will be denied admission into the program because of inability to pay the membership dues.

Students must maintain a minimum 3.2 UCF GPA and a minimum 3.0 GPA in Honors courses in order to remain in University Honors. In addition to meeting the GPA requirements, to graduate with University Honors the student must: 1) complete 12 hours of course work in Honors sections of the General Education Program ${ }^{1} ; 2$ ) complete with a "Satisfactory" (S) grade Honors Symposium ${ }^{2}$; and 3) meet upper-division Honors course requirements determined by college or major ${ }^{3}$.

Qualified students who transfer to UCF with an AA Degree with Honors from a Florida community college which has signed an Honors Articulation Agreement with THC will be admitted into University Honors with junior standing. Further information is available from the Honors Office.

Students who complete a semester abroad or receive six or more hours of upper-division credit for study abroad as part of the University Study Abroad Program, will receive credit for completion of one upper-division Honors Seminar ${ }^{4}$.

By the end of the second week of the semester/term in which a student plans to graduate with University Honors, the student must file a completed "Intent to Graduate with University Honors" form with THC. A student who completes all of the requirements for University Honors will have the designation of "University Honors" entered on the Diploma and transcript.

## Summary Table of University Honors Requirements

GEP Symposium Upper-division Major
12 hours $\quad 1$ hour $\quad$ See requirements by College ${ }^{3}$
${ }^{1}$ When a student has an exceptionally high number of dual enrollment, Advanced Placement, CLEP, or other work which is credited toward GEP required hours, she or he should consult with the Director of Honors Advising about fulfilling Honors GEP requirements.
${ }^{2}$ Honors Symposium is a one hour course offered in the Fall semester of each year. This course includes guest lectures, video and film presentations, and live performances by guest artists. Only one absence is permitted. A field trip is included as part of the Honors Symposium. Attendance at this series will be mandatory for all students seeking University Honors. The course is graded on a Satisfactory/Unsatisfactory basis.
${ }^{3}$ These upper-division requirements for the completion of University Honors are under review and revision by the professional colleges.

The current requirements are as follows:

## University Honors Upper-Division Program Requirements I: Colleges of Arts and Sciences, College of Education, and Computer Science majors

1. Complete two Honors Interdisciplinary Seminars ${ }^{4}$ (6 hours)
2. Complete one Honors Lecture (3 hours)

## - University Honors Upper-Division Program Requirements I: Colleges of Business Administration

1. Complete one Honors Interdisciplinary Seminar ${ }^{4}$ (6 hours)
2. Complete two Honors Business Common Body of Knowledge courses (6 hours). Currently, the following three sections of Common Body courses are offered in Honors:

MAR 4932H Honors Marketing (equivalent to MAR 3023)

FIN 3930H Honors Business Finance (equivalent to FIN 3403)

MAN 3930H Honors Management of Organizations 3 hrs (equivalent to MAN 3025)

## Computer Science Excluding Computer Science majors

1. Complete one Honors Interdisciplinary Seminar ${ }^{4}$ outside the student's department of major (although it may be within the College of Engineering and Computer Science)
(3 hours)
2. Complete one of the following two-semester sequences according to the student's chosen major. (6 hours)

Students majoring in Electrical, Computer, or Industrial Engineering will take:
STA 3032H Probability and Statistics for Engineers
(Offered every Fall semester)
EGN 3373H Principles of Electrical Engineering
(Offered every Spring semester)
All other engineering students will take:
EGN 3310H Engineering Analysis--Statics
(Offered every Fall semester)
EGN 3321H Engineering Analysis--Dynamics
(Offered every Spring semester)
3. Complete the Honors Engineering Seminar (3 hours)

EGN 4931H Honors Seminar--Research
(Offered every Spring semester)

## University Honors Upper-Division Program Requirements III: College of Health and Public Affairs (CoHPA) Excluding Molecular Biology and Microbiology majors

1. Complete one Honors Interdisciplinary Seminar ${ }^{4}$ (3 hours) offered by CoHPA (within or outside the major).
2. Complete one Honors Interdisciplinary Seminar ${ }^{4}$ (3 hours) outside student's department of major (within or outside CoHPA).
3. Complete one Honors Interdisciplinary Seminar ${ }^{4}$ or one Honors section of a department of major core course (3-4 hours).

## Designated Honors Sections of Department of Major Core Courses:

Communicative Disorders
SPA 3002H Intro to Communicative Disorders

NUR 3165H Critical Inquiry
Physical Therapy and Health Professions
HSA 3122H U.S. Health Care Systems
Public Administration
PAD 3003H Intro to Public Administration
Social Work
SOW 3300H Generalist Practice in Social Work

## University Honors Upper-Division Requirements for Molecular Biology and Microbiology Majors

1. Complete one Honors Interdisciplinary Seminar ${ }^{4}$ (3 hours) outside the major (Biotechnology recommended).
2. Complete with a grade of B or better BSC 3404H Honors Quantitative Biological Methods (4 hours).
3. Complete with a grade of B or better PCB 4524H Honors Molecular Biology II (3 hours).
${ }^{4}$ An Honors Seminar normally is an upper-division offering intended for all majors. Most seminars are strongly interdisciplinary, may be team-taught, and present cutting-edge topics by instructors who must present course proposals for consideration by the University Honors Committee. Enrollments are limited to 20 students. At least one of these seminars will form part of the revised University Honors upper-division curriculum currently under adoption by each college or major.

## Honors in the Major

Application for admission to the Honors in the Major program will be made to THC following consultation by the student with the Department Chair or Honors in the Major Coordinator in the student's major department. This program is designed to encourage original and independent work by the student. A copy of the thesis, project, or creative work will be placed in the University Library with another copy remaining in the Honors Office. An Honors in the Major Handbook outlining the procedures for completing this program is available in THC.

Requirements for admission to Honors in the Major are: completion of at least 60 semester hours of college credits including at least 12 graded upper-division hours at the University of Central Florida; at least a 3.5 GPA within the major and at least a 3.2 GPA in all upper-division courses regardless of institution; approvals by the department from which Honors in the Major is sought; approval of the Associate Dean of THC; and payment of one-time membership dues of \$25.00.

Honors in the Major is awarded upon completion of an advanced Honors Project or Thesis, and the completion of at least three but not more than six hours of Directed Readings or Honors Seminar in the Major course work as determined by the academic department; and at least three but not more than six hours of Honors Thesis or Project work taken in the college or department of major. Departments or colleges may set additional requirements for Honors in the Major to be completed.

The Honors Project or Thesis is to be completed under the direction of a committee of three faculty members, one of whom is the project or thesis Chair. It is the student's responsibility to obtain an Honors in the Major Committee Chair who will undertake the responsibility of directing the Honors Directed Readings and Thesis and, in consultation with the student, form the Honors in the Major faculty committee. The student is responsible for filing an application with THC to begin Honors in the Major, which must be signed by the Thesis Committee Chair, the Honors Coordinator of the major department, and the Associate Dean of THC. The student must receive a grade of at least "B" in all Honors in the Major course work to be awarded Honors in the Major.

By the end of the second week of the semester/term in which a student plans to graduate with Honors in the Major, the student must file an "Intent to Graduate with Honors in the Major" form with THC Office. A student who completes all of the requirements for Honors in the Major will have the designation of "Honors in the Major in (subject area)" noted on the Diploma and the university transcript. If you have any questions about these requirements, please contact THC at 407-823-0325 or him@mail.ucf.edu.

## College Of Arts and Sciences

Dean: Kathryn L. Seidel; CAS 190; 407-823-2251
Interim Associate Dean: Jay Corzine; CAS 190; 407-823-2251
Associate Dean: Terry Frederick; CAS 190; 407-823-2251
Associate Dean: Haven C. Sweet; CAS 190; 407-823-2251
Associate Dean: Jose Fernandez; CAS 190; 407-823-2251
Associate Dean: Lyman Brodie; CAS 190; 407-823-2251

The College of Arts and Sciences, the largest academic unit in the University, includes the following departments: Art; Biology; Chemistry; English; Film; Foreign Languages and Literatures; History; Liberal Studies, Mathematics; Music; Philosophy; Physics, Political Science; Psychology; Sociology and Anthropology; Statistics; and Theatre. The College also includes the Nicholson School of Communication that includes the following divisions: Advertising/ Public Relations, Interpersonal/Organizational Communication, Journalism, and Radio/Television.

In keeping with the aims of the University of Central Florida, the College is responsible for all programs in the broad areas of the humanities, arts, natural sciences, and social sciences. The departments collectively offer more than sixty baccalaureate, graduate, and pre-professional programs. For additional information concerning graduate programs, please refer to the Graduate Catalog.

In addition to providing academically strong degree programs in the areas noted above, the College of Arts and Sciences offers a wide selection of courses that are designed to complement the programs of the other colleges of the University. These offerings include most of the courses necessary to satisfy the University's general education requirement.

A student enrolled in the College as an undergraduate must fulfill all University degree requirements including those for general education, as well as the particular requirements set forth within each area of specialization. Computer proficiency is determined within the student's department of major. Depending on the program, evaluation may be via a written test, relevant projects, specific exercises
within a course, or an entire course dealing with computers. To be certified for graduation, a student must achieve at least a "C" GPA (2.0) in the courses of his or her major and/or minor. Some departments also require a minimum grade in each major course. Students are advised to consult their departmental advisor for specific policies.

A student whose written or oral communication in any course is deemed unsatisfactory may be referred to the Dean by the instructor. Additional coursework or an individual study program, consistent with the needs of the student, may be assigned and must be completed before the degree is granted.

## Preprofessional Programs

## Prelaw Program

Coordinator: Roger Handberg; CNH 414; 407-823-2608

There is no preferred major for pre-law. Law schools accept superior students with a good liberal arts background, regardless of major field. A Bachelor of Arts or Bachelor of Science degree with approximately three-fourths of the course work representing theory content is typically suggested. Majors such as English, History, Legal Studies, Philosophy, Sociology, and Political Science meet this criterion. The quality of undergraduate education for the legal profession, according to the Association of American Law Schools, is grounded in three basic skills and insights: comprehension and expression in words, critical understanding of the human institutions and values with which the law deals, and the creative power of thinking. Law schools require that the Law School Admission Test (LSAT) be taken prior to consideration for admission. General information pertaining to programs of study, the LSAT, careers, and law schools can be obtained from the Pre-law Coordinator.

Advisement of pre-law students will be provided in the area where a major is chosen. For example, a pre-law student who desires to emphasize the historical foundations should seek advisement in the Department of History; for emphasis in political science advisement should be sought in the Department of Political Science; emphasis in economics should be gained through advisement in Economics programs in either the College of Arts and Sciences or the College of Business Administration; emphasis in Legal Studies can be pursued in the Department of Criminal Justice and Legal Studies in the College of Health and Public Affairs.

## Prehealth Professions

The College of Arts and Sciences offers courses that fulfill admission requirements for professional schools in the Health Sciences. Refer to the Biology Preprofessional section for additional information.

## Advisement

## Office of Academic Support and Information Services (OASIS)

## http://www.cas.ucf.edu/oasis

Interim Director: Lee Anne Kirkpatrick; CNH 202;
407-823-2492; e-mail: oasis@ucf.edu

The Office of Academic Support and Information Services (OASIS) is the primary office for undergraduate academic assistance in the College of Arts and Sciences. OASIS assists students in the College of Arts and Sciences with matters concerning College and University requirements, policies and procedures. The Office oversees General Education course evaluation and substitutions as well as evaluation and application of TSD credits (CLEP and AP) for Arts and Sciences students.

Questions concerning University and College academic policies affecting Arts and Sciences majors should be directed to the OASIS staff in CNH 202 or by calling 407-823-2492. Questions concerning the requirements within a major should be directed to the Department offering the degree. The student should contact the department early in his/her academic career.

## Program Planning

Although suggested curricula are available in most areas, students will plan their program in consultation with a faculty advisor appointed by either the chair of the major department or the Dean of the College of Arts and Sciences.

## Area Studies Programs

Area Studies programs are multi-disciplinary programs that focus on specific regions or cultural groups. UCF has five area studies programs with an international focus: Asian, Canadian, Judaic, Latin American and Iberian Studies, and Russian Studies. Although the academic home of these programs is the College of Arts and Sciences, faculty and students from across the entire university may participate in them. These programs may be elected as minors by students majoring in any discipline within the university. For more information about the programs and contact numbers of the program directors see the list below. Contact the Office of International Studies for assistance or
referral for all international inquiries regarding academic programs.

Asian Studies - Contact: Robert Bledsoe; 407-823-2608
Latin American Studies - Contact: Arlen Chase; 407-823-2124
Judaic Studies - Contact: Moshe Pelli; 407-823-5039
Russian Studies - Contact: Richard Crepeau; 407-823-2224

## LINC Program

Program Coordinator: H. Sweet; CAS 191; 407-823-3253;
email: linc@ucf.edu

The Learning in Communities program (LINC) at UCF enriches a students' experience in select General Education Program courses. Paired GEP sections are joined in the LINC program into a single, six credit course which is jointly taught by two faculty. These faculty integrate their courses, thereby reinforcing the material presented in both. Students in the LINC sections form a greater bond, both among themselves and with the teacher. Although treated as a single class during the semester/term, separate academic credit and grades are provided for both participating courses.

## International Study Centers

## Undergraduate Inter-institutional Transient Program.

The State University System operates study centers in London, England and Florence, Italy during the Fall and Spring semesters. Students with 27 or more semester hours of credit and a minimum GPA of 2.5 or above in all state universities are eligible to apply for one or both semesters as inter-institutional transient students. Faculty at the centers are drawn from the nine state universities. While credits are earned through Florida State University, which administers the program on behalf of the State University System, credits are fully transferable within the System. Students at the Centers are considered to be resident in their home institutions for attendance and degree purposes.

Classes at the Florence Center emphasize art history, Italian, social sciences, and the humanities; at the London Center, theatre, business, English, history and the social sciences are emphasized. Field trips and museum visits are common to both. For further information, consult the Office of International Studies at 407-882-2300.

## Programs and Degrees

| Title | Degree |
| :---: | :---: |
| Actuarial Science Track | BS |
| Advertising/Public Relations | BA |
| African-American Studies | Minor |
| American Studies | Minor |
| Animation Track | BA |
| Anthropology | BA |
| Art | BA, BFA |
| Asian Studies | Minor |
| Biology | BS, MS, Certificate |
| Biomolecular Sciences | PhD |
| Chemistry | BS, MS |
| Cinema Studies Track (Film) | BA |
| Communication | MA |
| Community Arts - PAVE | Minor |
| Digital Media | Certificate, BA, BS |
| Economics | BA |
| English | BA, MA |
| English as a Second Language | MA |
| Film | BA |
| Foreign Language Combination | BA |
| Forensic Science | BS |
| French | BA |
| German | Minor |
| History | BA, MA, $3+2$ |
| Humanities | BA |


| Interpersonal Communication | BA |
| :--- | :--- |
| Italian | Minor |
| Journalism | BA |
| Judaic Studies | Minor |
| Latin-American Area Studies | Minor |
| Liberal Arts Track | BA |
| Liberal Studies | BA, BS, MS, 3 + 2 |
| Mathematics | BS, MS, PhD |
| Music | BA, BM |
| Music Education | BME |
| Organizational Communication | BA |
| Philosophy | BA |
| Physics | BS, MS, PhD |
| Political Science | BA, MA |
| Psychology | BA, BS, PhD |
| Radio-Television | BA |
| Russian Area Studies | Minor |
| Social Sciences | BS |
| Sociology | BA, MA |
| Spanish | BA, MA |
| Statistics | BS, MS |
| Theatre | Minor, Certificate |
| Women's Studies |  |

## Departments and Programs

African-American Studies: Program<br>http://www.cas.ucf.edu/african_studies

The College of Arts and Sciences offers a minor in African-American Studies, which gives students the opportunity to explore the African American experience from an interdisciplinary perspective. The program, which is designed to enhance and complement the student's major area of study, provides an overview of the main currents in African American arts, history, and culture. Courses in Caribbean Studies are also available to students. Each summer the Caribbean Study Abroad Program offers students the opportunity to study and explore cultures and societies of the Caribbean.

Degrees: None
Tracks: None
Minors: African-American Studies

## American Studies: Program

Contact: J. Fernandez; CAS 191; 407-823-2573

The College of Arts and Sciences offers a minor in American Studies. This program requires students to select relevant electives from literature, humanities, social sciences and history.

Degrees: None
Tracks: None
Minors: American Studies

## Anthropology

(See Sociology and Anthropology)

## Art: Department

## http://reach.ucf.edu/~art

E-mail: art@ucf.edu
Chair: Madison K. Francis; VAB 117; 407-823-2676
Faculty: Abbas, Abraham, Collins, Chavda, Congdon, Francis, Gaudnek, Haran, Haxton, Kim, Lotz, Martin, Reedy, Rivers, Wellman

The Department of Art has 15 full-time and 9 part-time faculty members teaching studio arts, graphic design, and art history. The curriculum in Art provides professional preparation in art history, and in the studio concentrations of cel animation, computer animation, ceramics, drawing, fibers and fabrics, graphic design, painting, photography, printmaking, and sculpture. A Bachelor of Arts is offered in art history and both the Bachelor of Arts and the Bachelor of Fine Arts degrees are offered in the studio specializations. Competitive scholarships and awards are available to currently enrolled full-time UCF art majors through portfolio reviews by faculty. These awards are sponsored by UCF and the Altrusa Club of Winter Park.

Degrees: Art (BA, BFA)
Tracks: Animation, Art History, Studio Art
Minors: Art History, Studio Art, Partners in Visual Art Administration

## Asian Studies: Program

Acting Director: Robert Bledsoe; CNH 415; 407-823-2608

An interdisciplinary minor designed to enhance multicultural education by offering students both an overview of Asian civilization and a detailed study of its most significant features. The focus of the program is on India, China, and Japan. Course work will include upper-level classes from the curricula of participating programs (anthropology, art history, economics, foreign languages, history, humanities, philosophy, political science).

Degrees: None
Tracks: None
Minors: Asian Studies

## Biology: Department

## http:///biology.ucf.edu/

E-mail: biology@ucf.edu
Chair: David Kuhn; BL 210; 407-823-2141
Faculty: Ehrhart, Kuhn, Osborne, Parkinson, Rea, Snelson, Stout, Sweet, Taylor, Thaler, Thomas, Vajravelu, Vickers, von Kalm, Walters, Waterman, Weishampel, Whittier, Worthy, Professors Emeritus Ellis and Koevenig

The Department of Biology offers a Bachelor of Science in Biology, a minor in Biology, the Master of

Science in Biology, a graduate certificate in Conservation Biology, and a Ph.D. in Biomolecular Sciences. The core curriculum provides a background in the chemical, mathematical, and physical sciences, as well as broad preparation in the biological sciences. This diverse background opens career opportunities for graduates in areas outside of their particular degree program. Graduates are well prepared to further their education in professional or graduate schools. Selection of electives, in consultation with a faculty advisor, permits emphasis of a subspecialty. Careful selection of restricted and unrestricted electives allows students to satisfy requirements for admission to professional or graduate school while completing their B.S. degree in Biology. Research experience and exposure to specialized topics not taught through formal courses may be gained through independent study contracts.

Degrees: Biology (BS, MS, PhD)
Tracks: Biology Pre-professional (BS)
Minors: Biology

## Chemistry: Department

## http://www.cas.ucf.edu/chemistry

E-mail: chemistry@ucf.edu
Chair: G. Cunningham; CH 117; 407-823-2246
Faculty: Ballantyne (Forensic Science), Belfield, Clausen, Elsheimer, Fookes (Forensic Science), Geiger, Hampton, Juge, Kujawa (Geology), Madsen, Matsui, McGee (Forensic Science), Miles, Paradis, Phanstiel, Price, Richardson, Slaterbeck

The Department of Chemistry offers courses and programs leading to a Bachelor of Science in Chemistry, a Bachelor of Science in Forensic Science, a minor in Chemistry, and a Master of Science in Industrial Chemistry. The undergraduate degree program in chemistry is accredited by the American Chemical Society Committee on Professional Training. It prepares the graduate for career opportunities in the chemical or related industries, or in government laboratories. The program also prepares students for further study at the graduate level in chemistry or in a related area such as pharmacology or toxicology. With an appropriate choice of electives it also constitutes excellent preparation for the professional schools of dentistry, medicine, and veterinary medicine.

Degrees: Chemistry (BS, MS), Forensic Science (BS)
Tracks: Chemistry, Forensic Analysis, Forensic Biochemistry
Minors: Chemistry

## Communication: Nicholson School

## http://www.cas.ucf.edu/communication

## E-mail: communication@ucf.edu

Director: Mike Meeske; COM 238; 407-823-2681
Faculty: Bagley, Barfield, Betz, Bledsoe, Bridges, Brokaw, J. Butler, Davis, DeLorme, Fedler, Hall, Hodgson, Ihde, Jablonski, F. Johnson, Katt, Lawrence, Maunez-Cuadra, Meeske, Mills, Mitrook, T. Morgan, Moroux, O'Hara, Pryor, Santana, R. Smith, Stansberry, Tanzi, Taylor, Wycoff, Young

The Nicholson School of Communication provides students with a balance of practical skills and philosophical aspects of mass and interpersonal communication. The programs prepare students to understand mass media as social institutions and trains them for professional careers. The School is composed of four Divisions which offer five separate Bachelor of Arts degrees. The degrees are:

1. Advertising/Public Relations. Provides theory and practice in both advertising and public relations.
2. Interpersonal Communication. Provides knowledge, theory, and skills needed to understand and predict human communicative behavior.
3. Journalism. Provides theory and skills needed to gain employment in newspapers, magazines, and similar forms of mass communication.
4. Organizational Communication. Provides knowledge, skills, and theory to understand and predict human communicative behavior in organizational settings.
5. Radio-Television. Provides theory and skills needed for careers in radio, television, and related forms of electronic communication.

A Master of Arts degree in Communication is offered.

## Facilities

The Radio-Television Division has fully-equipped audio and video production facilities, a complete multi-camera television studio, an on-line radio station, and laboratories for interactive multimedia. The Journalism Division has computer writing rooms and both a traditional wet photography lab and a digital darkroom. The Advertising/Public Relations Division has a computerized graphics lab and a writing classroom. The Interpersonal/ Organizational Communication Division has a presentational speaking classroom equipped for audio/video record/playback and computerized visual presentation. The Division also has a small group laboratory equipped with audio/video record/playback.

Degrees: Advertising/Public Relations (BA), Interpersonal Communication (BA), Journalism (BA), Organizational Communication (BA), Radio-Television (BA)

Tracks: Broadcast Journalism, Broadcast Production, General
Broadcasting
Minors: Interpersonal Communication, Magazine Journalism, Mass Communication, Organizational

## Community Arts - PAVE: Program

Director: Madison K. Francis; VAB 117; 407-823-2676

A minor in Community Arts/Partners in Art in Visual Education (PAVE) is offered for the student who is majoring in Art, Music, Theatre, or English.

Degrees: None<br>Tracks: None<br>Minors: Community Arts

## CREAT: Program

## http://www.creat.cas.ucf.edu

E-mail: creat@cas.ucf.edu
Director: J. Michael Moshell; VAB 205; 407-823-6100

The Consortium for Research and Education in the Arts and Technology (CREAT) is an interdisciplinary program offered in the College of Arts and Sciences. Contributing academic units include the Departments of Art, English, Film, Electrical Engineering, Music, Theatre, and the Schools of Communication and Computer Science. Students from any major may participate.

CREAT offers a certificate program in Digital Media which provides students an opportunity to study the evolving field, and to participate in senior projects in partnerships with media professionals. Admission to the CREAT program requires the presentation of a portfolio of work which demonstrates the student's creativity and technical accomplishment in some artistic or technical domain.

Degrees: Digital Media (BA, BS)
Tracks: None
Minors: Certificate

## English: Department

Chair: D. Trouard; CNH 301; 407-823-2212
Faculty: Angley, Applen, Barnes, Bartkevicius, Bell, Bowdon, Brain, Campbell, Casmier-Paz, Davidson, Dombrowski, Donnelly, Enteen, Flammia, Gillette, Hammons, Hemschemeyer, Hepner, Hohenleitner, Hubbard, Jones, Kamrath, Kesler, Kitalong, Leiby, Lillios, Logan, Marinara, Mauer, Meehan, Milanes, Omans, Owens, Pugh, Rushin, Schell, Schiffhorst, Seidel, Smith, Sommer, Stap, Telep, Young. Adicks (Professor Emeritus)

The Department of English is responsible for the effective teaching of language and literature in English, including World Literature, and creative, expository, and technical writing. Students may concentrate in creative writing, technical writing, or literature. The Department serves the broad needs of the University with course offerings in writing and literature for students from other departments. The department has a Technical Documentation Writing Lab and also publishes The Florida Review, The Cypress Dome, and The Faulkner Journal. An Honors in English program provides an enriched course of study for exceptional students, leading to graduation with honors. Program description follows concentration degree plans.

Degrees: English (BA, MA)
Tracks: Literature, Creative Writing, Technical Writing
Minors: Creative Writing, Literature, Linguistics, Technical Writing and Editing, Writing

## Film: Department

## http://www.film.ucf.edu

E-mail: film@ucf.edu
Chair: Sterling Van Wagenen; COM 121; 407-823-3456
Faculty: Blum, Gerstein, Harpole, Ingle, M. Johnson, B. Jones, Mednick, Stapleton, Yearwood

Offering a four-year undergraduate curriculum, the Film Department focuses on developing a student's creative voice, and stresses entrepreneurial filmmaking and the use of new technology in the production and distribution of their work. Encompassing all aspects of filmmaking from conceptualization to distribution, the department prepares students to become effective independent filmmakers. Graduating seniors are required to complete a capstone film, script, or digital media project. Concentrations include: filmmaking, screenwriting, digital cinema, and cinema studies. Community partners include: Universal Studios Florida, Disney-MGM Studios, the Florida Film Festival, and The Haxan Group.

Students are selected for the "limited access" program by submitting an application form and creative
portfolio by January 15. Complete information on faculty, curriculum, and admission requirements is available on the department website. Because this is a limited access program, students should pay close attention to the program admission requirements.

Degrees: Film (BA)
Tracks: Film, Cinema Studies
Minors: Film-Cinema Studies

## Foreign Languages and Literatures: Department

## http://www.cas.ucf.edu/forlang/

E-mail: foreignlanguages@ucf.edu
Chair: C. Stebbins; CNH 523; 407-823-2472
Faculty: Barberet, Barsch, Cervone, Decker, Del-Río, DiPierro, Fabery, Fernández, Ferro, Folse, Giannandrea, Horzen, Korosy, Leticée, López, Martínez, Matus-Mendoza, Nalbone, Paparella, Prucha, Redmon, Rivera, Stebbins, Taylor, Uhr, Villanueva. Micarelli (Professor Emeritus)

Language studies in the College of Arts and Sciences provide instruction in Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Korean, Latin, Portuguese, Russian, and Spanish, with majors in French, Spanish, and a combination of two languages. The language combinations may consist of French, German, or Spanish as a first language, and any of these three, plus Italian, as a second language.

These programs are designed to meet the needs of students who desire competency in a language and expanded understanding of a foreign culture and literature. Students enrolled in the 1000-level language sequence are required to utilize the Foreign Language Media Center for at least one hour per week. Students desiring to major in a foreign language must meet all the requirements for graduation as set forth by the University, the College of Arts and Sciences, and by the Department of Foreign Languages and Literatures.

Degrees: French (BA), Spanish (BA, MA), Foreign Language Combination (BA), ESOL (MA)
Tracks: None
Minors: French, German, Italian, Spanish

## Forensic Science: Program

## http://www.cas.ucf.edu/chemistry/forensic.html

Director: W. W. McGee; CH 221; 407-823-2788
Faculty: Ballantyne, Fookes, McGee

Forensic Science is the profession serving the scientific needs of the justice system. The program at UCF has been designed to provide the student with an educational background in criminalistics. The principal job of the forensic scientist is to examine physical evidence gathered at the scene of a suspect criminal action. The criminalist may work on physical evidence such as blood, hairs, fibers, or pharmaceutical and clandestine drug preparations. Upon completion of a thorough laboratory examination of the evidence, the forensic scientist presents his/her findings in court. The goal of the Forensic Science program is to prepare the student for this demanding profession. Within the Forensic Science program, the student may choose one of two programs of study. The two areas of emphasis are the Analysis Track and the Biochemistry Track.

Degrees: Forensic Science (BS)
Tracks: Forensic Analysis, Forensic Biochemistry
Minors: none

## History: Department

http://pegasus.cc.ucf.edu/~history
E-mail: history@ucf.edu
Interim Chair: Edmund Kallina; CNH 544; 407-823-2224
Faculty: C. Adams, S. Adams, Alvarez, Beiler, Evans, Fernandez, Friend, Greenhaw, Kallina, Leckie, Pauley, Perry, Velez, Walker, Zhang

History majors who are interested in a pre-law program should work closely with their departmental advisors in selecting major courses and electives which will best prepare them for law school. These students should use their electives for additional courses in history as well as English, speech, political science, and philosophy. Such a course of study will prepare them for success in law school and will concomitantly provide a broad liberal education.

The History Department encourages its majors, especially those in American history, to develop their statistical and computer skills by completion of appropriate course work in the Department of Statistics. The Department participates in the programs in Women's Studies, American Studies, African-American Studies, Asian Studies, Canadian and Commonwealth Studies, Latin-American and Iberian Area Studies, and Russian Area Studies.

Degrees: History (BA, MA)
Tracks: None
Minors: History

## Judaic Studies: Program

## http://www.cas.ucf.edu/judaic_studies

E-mail: judaicst@ucf.edu
Program Director: Professor Moshe Pelli; CNH 201, 407-823-5039 or 823-5129

The Interdisciplinary Program in Judaic Studies offers both a Minor and a Certificate. The Program cooperates with the departments of English, Foreign Languages, History, Philosophy, Political Science, and Sociology/Anthropology, and with the Liberal Studies and Women's Studies Programs.

The program offers instruction, conducts research, and disseminates knowledge in the civilization of the Jewish people from Biblical times to the present day in the major dimensions of its creativity: literature, language, religion, philosophy, law, and social, political and economic organization. Because the roots of western culture and civilization and major world religions lie in ancient Jewish thought and practice as manifested in the Hebrew Bible and subsequent writings, Judaic Studies form an essential component of the university's curricula.

The program enables students to acquire a foundation of knowledge of Jewish history; the Hebrew language; Jewish philosophy, culture, religious beliefs, and political aspirations; and to understand the contribution of Judaism to western civilization. The courses highlight major aspects of Jewish civilization, focusing on its interaction with other cultures and on the bodies of human knowledge upon which it draws. The program is designed to serve students pursuing careers in general or Jewish education, in international and Middle-Eastern affairs, in languages or liberal arts, in the ministry or rabbinate, and in the community at large.

Degrees: None
Tracks: None
Minors: Judaic Studies

## Latin American Area Studies: Program

E-mail: achase@mail.ucf.edu

The Latin American Area Studies Minor is an interdisciplinary academic program whose objective is to provide students with an understanding of Latin American cultural, social, intellectual and political-economic dynamics. The minor provides students with a background that can be applied to careers in teaching, government, business, non-profit organizations, as well as international, inter-American Affairs.

Degrees: None
Tracks: None
Minors: Latin American and Iberian Area Studies

## Liberal Studies: Program

## http://www.cas.ucf.edu/liberal_studies

E-mail: ls@mail.ucf.edu
Program Director: TBA
Academic Advisors: David Jordan, Judy Monroe; CNH 201A; 407-823-0144.

The Liberal Studies Program offers students the opportunity to pursue interdisciplinary studies through three different programs of study, the Liberal Arts Track, Liberal Studies, and the Computer Information Technology Track..

Degrees: Liberal Arts (BA), Liberal Studies (BA and BS)
Tracks: Liberal Arts, Computer Information Technology
Minors: None

## Mathematics: Department

## http://math.ucf.edu/

E-mail: math@ucf.edu
Chair: Piotr Mikusinski; MAP 209; 407-823-6284
Faculty: Andrews, Anthony, Armstrong, Brigham, Cannon, Caron, Choudhury, Clarke, Danielyan, Dunlop Pyle, Dutton, Han, Heinzer, Higgins, Hilton, Hoffman, Hopen, Jones, Kassab, Katsevich, Langfield, Li, Martin, Mikusinski, Mohapatra, Nicholson, Pensky, Phillips, Pyle, Rautenstrauch,

Richardson, Rodriguez, Rollins, Salzmann, Shivamoggi, Taylor, Tovbis, Vajravelu, Zayed, Zhao

The Department of Mathematics offers courses and programs which lead to a Bachelor of Science in Mathematics, a minor in Mathematics, a Master of Science in Mathematical Science and a Ph.D. in Mathematics. (See the Graduate Studies catalog for a description of the M.S. in Mathematical Science and the Ph.D. in Mathematics.) The programs in mathematics are designed to serve; (1) students who desire to pursue careers in mathematics after having completed a baccalaureate degree; (2) students who desire to continue their education in graduate and professional schools; and (3) students who need to use advanced mathematics as a tool in their specialty areas.

In order to serve such a wide variety of students, the courses and programs in the Department of Mathematics have developed along several lines. There are the usual service courses in pre-calculus and calculus along with strong programs in the upper division in the traditional areas of algebra and analysis and applied mathematics.

The department does not award credit by examination for courses which are regularly taught. Students who feel they know the material in a given course are encouraged to take a more advanced class to fulfill their mathematics requirement. A limited number of student assistantships are available for qualified graduate students.

Degrees: Mathematics (BS, MS, PhD)
Tracks: Applied Mathematics, Computational Mathematics, Engineering/Physics Mathematics, Pure Mathematics

Minors: Mathematics

## Music: Department

## http://pegasus.cc.ucf.edu/~ucfmusic

E-mail: music@ucf.edu
Chair: L. Eubank; CNH 205; 407-823-2869, Fax 407-823-3378
Faculty: Almeida, Brodie, Brunner, Cardarelli, Eubank, Garcia, Gardner, D. Gelenbe, Greenwood, Hardy, Holcomb, Hotaling, Koons, Kraut, Moore, Pickering, Roney, Rupert, Scharron, Stephenson, Sung, Weremchuk, Whisler, Whitney, Wolf, Wrancher, Yonetani

Part-Time Faculty: Brownlow, Fox, Garrity, Krueger, A. Mascaro, Swedberg, Wei, Weikle

The Department of Music offers a Bachelor of Music degree with options in performance and piano
pedagogy; a Bachelor of Arts Degree in music; and a Bachelor of Music Education Degree with specializations in instrumental, choral and elementary school music. The Music Education programs are approved by the Florida State Department of Education. Students who desire to be certified to teach in elementary and secondary schools should consider a major in Music Education. Courses leading to teacher certification are offered cooperatively with the College of Education. Master of Arts and a Master of Education degrees in Music Education are offered by the College of Education. The Music Department is fully accredited by the National Association of Schools of Music. Music organizations on campus include Pi Kappa Lambda, Phi Mu Alpha, Sigma Alpha Iota, Tau Beta Sigma, Kappa Kappa Psi, University Vocal Society, Gospel Choir, MIDI User Group and a Student Chapter of Music Educators National Conference.

Degrees: Music (BA), Music Education (BME), Music Performance (BM)
Tracks: Music Performance, Music, Music Education
Minors: Music

## Philosophy: Department

## http://www.cas.ucf.edu/philosophy

E-mail: philosophy@ucf.edu
Chair: Shelley M. Park; CNH 411; 407-823-2273
Faculty: Hawkins, Jaeger, Jones, Kassim, Levensohn, Mundale, Park, Riser

The Department of Philosophy offers a Philosophy major and a multicultural Humanities major, as well as minors in Philosophy, Humanities, Religious Studies, and Environmental Studies. The Department requires Philosophy and Humanities majors to receive advisement prior to registering each semester. Majors should schedule appointments with their departmental advisor when picking up their registration form and schedule booklet. For any course used to satisfy a requirement (including electives) of either the Philosophy major or the Humanities major, a grade of "C" or better must have been received.

Degrees: Philosophy (BA), Humanities (BA)
Tracks: Regular and Honors
Minors: Philosophy, Humanities, Religious Studies, Environmental Studies

## Physics: Department

## http://www.physics.ucf.edu

E-mail: physics@ucf.edu

Chair: Brian Tonner; MAP 310; 407-823-2325
Associate Chair: Lee Chow; MAP 315; 407-823-2333
Faculty: Barlow, Bhattacharya, Bolemon, Bose, Braunstein, Brennan, Chernyak, Chow, Johnson, Llewellyn, Luo, Neighbor, Peale, Saha, Saul, Schulte, Tonner, Vanfleet, Walters

Affiliated Faculty: Bass, Chai, Delfyett, Elias, Hagan, Kar, Li, Richardson, Shivamoggi, Silfvast, Soileau, Stegeman, Van Stryland, Zeldovich

Visiting Faculty: Efthimiou, Evans, Kleckly

The Department of Physics offers a multi-track program of study leading to the B.S. degree, giving students the flexibility to choose a suitable set of courses to prepare for their career goals. A common core of courses in theoretical and experimental physics will lead to a broad understanding of the general principles of physics. The different tracks allow students to specialize, applying problem-solving techniques in a certain area of interest; this also enhances their qualifications for employment in that area after graduation.

After graduation our students are prepared to enter advanced study in physics, engineering, medicine, environmental sciences, astronomy, and other related disciplines. They are also prepared to begin careers in positions are varied as engineering physics, computational physics, and physics education. Undergraduate physics majors benefit from small class sizes, and are encouraged to be involved in individually designed senior projects working with a faculty advisor.

The Department's research programs include optics and lasers, condensed matter physics, complex systems, biophysics, atomic and molecular physics, nanostructures, and space science. The Department of Physics offers a Master of Science degree and a Doctor of Philosophy degree.

Degrees: Physics (BS, MS, PhD)
Tracks: General Physics, Materials Physics, Optics and Lasers, Computational Physics, Astronomy Minors: Astronomy, Physics

## Political Science: Department

## http://pegasus.cc.ucf.edu/~politics

E-mail: politics@ucf.edu
Chair: R. L. Bledsoe; CNH 415; 407-823-2608
Faculty: Bartling, Benson, Bledsoe, Bradford, Fine, Hamann, Handberg, Jewett, Kiel, Knuckey,

The Department of Political Science seeks to 1) provide students with a broad background for careers in foreign and domestic public service and in the private sector where a knowledge of government and politics is necessary; 2) provide students with a broad background in pre-law to facilitate their admission to law school; 3) prepare students for teaching, research, and graduate study in Political Science; 4) provide a broad background for careers in politics; and 5) educate citizens and promote their active interest in public affairs. Students should plan their major or minor in consultation with their departmental advisor according to their interests and career objectives.

Political Science courses are divided into three areas of specialization: American Politics and Policy; International Relations and Comparative Politics; and Political Theory. It is strongly recommended that majors planning to continue their education at the graduate level or to pursue a career in international fields acquire a working knowledge of a foreign language. The Department of Political Science participates in the following programs:

Asian Studies: Contact Robert Bledsoe.
Canadian and Commonwealth Studies: Contact M. Elliot Vittes.
Environmental Studies: Contact Dwight Kiel.
Latin American and Iberian Studies: Contact Waltraud Q. Morales or Bruce Wilson.
Russian Area Students: Contact Houman A. Sadri.
Space Studies: Contact Roger B. Handberg, Jr.
Women's Studies: Contact Terri S. Fine or Joyce Lilie.
Degrees: Political Science (BA, MA), Economics (BA)
Tracks: American Politics, International Relations-Comparative Politics, Prelaw
Minors: Political Science, Political Science/Prelaw

## Psychology: Department

http://pegasus.cc.ucf.edu/~psych
E-mail: psychology@ucf.edu
Chair: J. McGuire; PH 302B; 407-823-2216
Associate Chair: D. Abbott, PH 305E; 407-823-2216
Faculty: Abbott, Blau, Bowers, Brophy, Burroughs, Chin, M. Dunn, S. Dunn, Fisher, Fritzsche,

Gilson, Hancock, Hanson, Hitt, Jensen, Koonce, Lavooy, McGuire, Morgan, Mottarella, Mouloua, Negy, Newlin, Rapport, Renk, Rinalducci, Rollins, Salas, Shirkey, Sims, Smither, Stone-Romero, Tell, Thomas, Tucker, Wang, Weaver, Wooten

Psychology is one of the empirical sciences in the College of Arts and Sciences. The Undergraduate Program in the Department of Psychology reflects the scientific nature of the field and has two primary missions. The first is to provide students with a rigorous preparation for graduate training in psychology and related fields. The second mission is to provide all students with skills they will need to apply the basic concepts and methods of psychology in their work, their communities, and their lives. The Department of Psychology grants both BA and BS degrees. While either the BA or BS degree provides excellent preparation for graduate programs, students desiring a strong background in statistics and science should consider the BS option. The BS option has more science and math-related requirements as well as additional courses in psychology research and statistical methods.

Degrees: Psychology (BA, BS, MA, MS, PhD)
Tracks: None
Minors: Psychology

## Russian Area Studies: Program

Contact: R. Crepeau; CNH 551; 407-823-2224

Four UCF departments, Foreign Languages, History, Political Science, and Philosophy, have pooled their resources to offer a minor to students interested in a basic and well-rounded background in Russian Area Studies. The philosophy of the program is to offer students a multidisciplinary approach to the subject, so as to allow them to grasp the subject in its complexity and to understand linguistic, cultural, historical, political, and socio-economic interrelationships

Degrees: None
Tracks: None
Minors: Russian Area Studies

## Social Sciences: Program

Contact Person: D. Jones; CNH 201; 407-823-0144

The Social Sciences program offers students an opportunity to become acquainted with the various
fields of the Social Sciences and to better understand the relationships between those fields.
Satisfactory completion of the program leads to the Bachelor of Science degree with a major in Social Sciences.

Degrees: Social Sciences (BS)
Tracks: None
Minors: Social Sciences-Interdisciplinary

## Sociology and Anthropology: Department

## http://www.cas.ucf.edu/soc_anthro/firstpage.html

E-mail: anthropology@ucf.edu, sociology@ucf.edu
Chair: J. Corzine; PH 403B; 407-823-2227
Associate Chair: D. Gay
Faculty: A. Chase, D. Chase, Cook, Corzine, Dees, Dietz, Dupras, Gay, Goldstein, Howard, Huff-Corzine, D. Jones, Jasinski, Keeton, Lynxwiler, Marshall, Morris, Mustaine, Stearman, Wallace, Wright, Wright II, Zorn

The Department of Sociology and Anthropology offers a Bachelor of Arts in Sociology and in Anthropology. Students should consult with their departmental advisor early in their academic careers to select an area of specialization within the Department or if they plan to pursue graduate work.

Degrees: Anthropology (BA), Sociology (BA, MA)
Tracks: Domestic Violence (MA)
Minors: Anthropology, Anthropology in Multicultural Studies, Sociology

## Statistics: Department

## http://www.cas.ucf.edu/statistics

E-mail: statistics@ucf.edu
Chair: I. Ahmad; CCII 212; 407-823-3323
Faculty: Cutchins, Guo, Hoffman, Jamshidian, Johnson, Liu, Nickerson, Pensky, Pepe, Richardson, J. Schott, S. Schott, M. Wang, Zhang

The Department of Statistics offers courses and programs which lead to a Bachelor of Science in

Statistics, a Bachelor of Science in Statistics with Actuarial Science Concentration, a minor in Statistics, and a Master of Science in Statistical Computing. (See the Graduate Studies catalog for a description of the M.S. in Statistical Computing.)

The undergraduate programs in statistics are designed to serve 1) students who desire to pursue careers in statistics after having completed a baccalaureate degree; 2) students who desire to continue their education in graduate or professional schools; and 3) students who use statistics as tools in their specialty areas.

In order to serve such a wide variety of students, the courses and programs in the Department of Statistics have developed along several lines. There are the usual service courses in elementary statistics along with strong programs in the upper division in statistical methods, statistical theory, and statistical computing. A limited number of assistantships are available for qualified graduate and undergraduate students.

Degrees: Statistics (BS, MS)
Tracks: Actuarial Science
Minors: Statistics

## Theatre: Department

## http://pegasus.cc.ucf.edu/~theatre

## E-mail: theatre@ucf.edu

Chair: D.W. Seay; THE 120; 407-823-2861.
Faculty: Brasseux, Brotherton, Dunham, Earnest, Harris, Hart, Huaixiang, Kopf, Lartonoix, Listengarten, Major, Owens, Ruscella, Rusnock, Seay, Smith, Siegfried, Smith (Professor Emeritus)

The Department of Theatre seeks to develop theatre artists of the highest quality by providing a select number of undergraduate students with the training, education, and experiences necessary for the successful pursuit of professional careers in theatre arts. In support of this mission and the liberal arts goals of the College of Arts and Sciences, the department seeks to provide its students with the knowledge and skills necessary to live full, rewarding and productive lives. Offering both the Bachelor of Arts and the Bachelor of Fine Arts degrees, the Department of Theatre undertakes to develop and graduate theatre artists who are sensitive, aware, and total human beings. Through its public performance programs, the department endeavors to serve as a cultural resource for the University, the community and the central Florida region. Striving to provide its students with a competitive edge, the department employs a faculty and staff of artists/teachers who work intensely with students in the classroom and in production. To supplement this education and training, professional guest artists are brought to the campus to work in production and in the classroom. Before graduation, BFA students are required to complete a professional theatre internship thus providing them with a unique and invaluable introduction to the real world of professional theatre. In
all its endeavors, the Department of Theatre strives to create and maintain a professional environment necessary for the continued growth and development of its students, faculty, and staff.

Degrees: Theatre (BA, BFA)
Tracks: Performance, Design/Tech, Stage Management, Musical Theatre
Minors: Theatre

## Women's Studies: Program

Director: Cecilia Rodriguez Milanes; CNH 20A; 407-823-6502

The Women's Studies program offers an interdisciplinary minor and a certificate in Women's Studies, in cooperation with several departments. The program examines women's situation and contributions in past and present societies, women's issues, and theories concerning women and gender.

Degrees: None
Tracks: None
Minors: Women's Studies, Certificate
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## COLLEGE OF BUSINESS ADMINISTRATION

Dean: Thomas L. Keon, BA 230; 407-823-2181
Interim Associate Dean: Bradley M. Braun, BA 230L; 407-823-5094
Associate Dean: Taylor Ellis, BA 240; 407-823-2187

The mission of the College of Business Administration at the University of Central Florida is to provide quality business education programs, at the undergraduate, graduate, and executive levels, to the citizens of the state of Florida and to selected clientele nationally and internationally. In delivering these programs, the College places primary emphasis on excellent teaching and research with a strong commitment to developing mutually supportive relationships with the business community of Central Florida.

In pursuit of its mission, the College of Business Administration affirms its commitment to the University's focus on excellence and accent on the individual. Furthermore, the College pledges to deliver innovative and progressive programs to its clientele, and a commitment to service in the community, not only from its faculty but also its students. As the College approaches the twenty-first century, it has adopted "Driven by Excellence" as a motto and guiding force in achieving its goals and objectives. All undergraduate and graduate programs are accredited by the American Assembly of Collegiate Schools of Business (AACSB).

Admission to the University of Central Florida does not imply admission to the College of Business Administration. Students will only be allowed to enroll in the 3000/4000 level courses taught by the College of Business Administration after they have been admitted to the College. Admission to the College will be granted when the following are complete:

- Completion of the University General Education program, or an AA degree from a Florida Public Community College.


## - Common Program Prerequisites.

Students who otherwise meet the University admission requirements, such as entering freshmen and transfer students, will be placed in a Business Administration pending category until they meet the requirements set forth above. Only grades of "C" (2.0) or higher will transfer into the program. Each
student should attend orientation for academic advising and should meet with an academic advisor in the College to outline a program of study.

Attendance at the first meeting of any College of Business course is mandatory. Students not in attendance at the first meeting may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.

## BE2010

UCF Business. . . the Best Undergraduate Business Education in Florida. In 1993 the UCF Business faculty established a goal to deliver the best undergraduate business education in Florida. The product of the alumni, faculty, business leaders, and students, the Business Education 2010 (BE2010) curriculum focuses on four competencies that are integrated throughout all coursework: Teamwork, Communication, Creativity, and Adapting to Change. Faculty, working with representatives from the business community, help you develop these competencies as you work through the following required courses in the Common Body of Knowledge:

GEB 3031 Cornerstone
BUL 3130 Legal \& Ethical Environments of Business
ECO $3411 \quad$ Quantitative Business Tools II
FIN 3403 Business Finance
MAN 3025 Management of Organizations
ISM 3011 Essentials of Management Information Systems
MAR 3023 Marketing
GEB 4361 Business in the International Environment
MAN 4720 Strategic Management

## Grade Point Average Requirements

For graduation the student must have maintained a minimum 2.0 GPA in course work taken in the College of Business Administra-tion and a minimum 2.0 GPA in the course work required in the major, except in Accounting, Finance, Marketing, Management, and Management Information Systems where a "C" (2.0) or better is required in each course and a UCF minimum 2.0 is required.

## Student Load

A student who is enrolled in 16 semester hours of course work is considered to be carrying a normal academic load. Students in the College of Business Administration desiring to take more than 16 semester hours must obtain permission from the College.

## Community/Junior College Transfers Notes

1. Admission requirements can and do vary among the business and accounting programs at the ten universities comprising the State University System. To ensure that they have met all prerequisite course eligibility requirements, transfer students from Florida's community and junior colleges should complete the following courses as part of their Associate of Arts degree: ACG 2021 (or ACG 2001 and ACG 2011), ACG 2071, ECO 2013, ECO 2023, MAC 2233, STA 2023,(or QMB 2100) and the relevant computer applications course. At UCF, students who have completed MAC 2233 and STA 2023 will be waived from ECO 3401 Business Quantitative Tools I. Students who have completed either MAC 2233 or STA 2023, but not both, must take ECO 3401. Completion of these courses will satisfy all prerequisite course requirements for all business and accounting degree programs and will ensure that a student will receive further consideration for admission.
2. Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in UCF's Business program. Only grades of "C" or higher transfer into the program.
3. Florida Public Community College students are advised to complete the Associate of Arts Degree including:
a. the general education requirements
b. the one year Accounting and Economics sequence
c. College Algebra
d. CGS 2100
4. Professional courses should not be taken at a community/junior college in the areas of Management, Marketing, Real Estate, or Finance. These professional areas are third and fourth year course areas in the College of Business Administration and cannot be satisfied with community/junior college courses.
5. A minimum of 12 semester hours must be completed at UCF within each individual major.

Recent legislation has mandated changes in program admission prerequisites, program length, and course levels. This document may not include the final versions of these changes. See your college advisor for current information.

## Advisement

## Office of Student Support (OSS)

Director: Helen Y. Hill; BA 240; 407-823-2184

The Office of Student Support is the primary office for undergraduate and graduate academic assistance in the College of Business. Degree requirements, registration, and any questions concerning University and College academic policies affecting Business majors should be directed to the Office of Student Support staff in BA 240 or by calling 407-823-2184. Visit OSS's home page at: http://www.bus.ucf.edu/oss/

## Programs and Degrees

## Title

Accounting
Business Administration
Economics
Finance
General Business
International Business Tracks:
Economic Track
Finance Track
General Business Track
Marketing Track
Management Track
Management
Marketing

## Departments and Programs

## School of Accounting

Faculty: Bailey, Bandy, Bobek, Dillard, Dwyer, Evans, Goldwater, Hunt, Johnson, Judd, Kelliher, Klintworth, Mahoney, Potts, Roberts, Roush, J. Salter, M. Salter, Savage, Smith, Veit, J. Welch,

## Mission Statement

The mission of the School of Accounting is to provide high quality undergraduate, graduate, and professional educational programs responsive to the needs of students, community, and the profession. Teaching, research, and service are the means of accomplishing this mission. The School offers rigorous programs emphasizing communication skills, critical thinking, ethical practices, interpersonal skills, and technical competence preparing graduates for entrance into the accounting profession.

The School encourages intellectual contributions by faculty through instructional development, applied scholarship, and basic scholarship. The School provides service by participating in university governance, professional organizations, and professional educational programs. (Adopted by the faculty on March 4, 1993, and revised by the faculty on January 10, 1997.)

To prepare for any business career, a strong foundation in accounting and taxation will provide the variety of skills necessary to succeed in today's complex financial world. An accounting degree prepares students for entry into the fields of industrial, managerial or governmental accounting, with a strong potential for career advancement.

The objective of the baccalaureate program with a concentration in accounting is to provide basic conceptual accounting and business knowledge as a foundation for accounting career development. The undergraduate degree also is the first step toward becoming a Certified Public Accountant. Certified Management Accountant and Certified Internal Auditor. The School of Accounting also offers master's degrees in accounting and taxation. These programs complete the education required to become a CPA. A rigorous and comprehensive accounting curriculum at UCF focuses on the real-world challenges of accounting, emphasizing problem solving, information analysis and computer applications.

## Distinctive Benefits

Strong industry ties allowing for unique opportunities for placement and advancement.
A competitive internship program that places graduate students in positions with major employers in the community

The opportunity to enroll in outstanding graduate programs in accounting and taxation.

A very strong faculty known for their teaching excellence.
Over a dozen scholarships available to advanced students.
Active student organizations including the Student Accounting Society and Beta Alpha Psi
A faculty committed to the continuous improvement of the accounting and taxation programs.
Outstanding pass rates on the CPA exam.
Degrees: Accounting (BSBA, MSA, MST)

## Department of Economics

Chair: D. Hosni; BA 325; 407-823-3266, economics@bus.ucf.edu

Faculty: Agarwal, Anton, Braun, Day, Elston, Euzent, Gibbs, Hofler, Hosni, Lee, List, Martin, McHone, Milon, Moore, Pennington, Raffa, Rungeling, Sen, Serogin, Soskin, Tomlin, White, Xander

Faculty Advisor: B. Sen; BA 325; 407-823-3266

Economic issues dominate today's news and public debates more than ever before. Inflation, unemployment, health care, economic growth, pollution, poverty, and international economic relations are a few of these issues. The primary strength of economics is that it provides a logical, ordered way of looking at most problems and issues. Undergraduate education in economics equips individuals to both better understand and seek solutions to these issues.

The Department of Economics participates in two undergraduate degree programs: a BSBA degree in the College of Business Administration and a BA degree in the College of Arts and Sciences. The purpose of the College of Business Administration economics major is to provide students with a professional business background that prepares them for careers in private business and government. The purpose of the economics major in the College of Arts and Sciences is to provide a broad-based liberal arts background that can serve as a strong foundation for further graduate studies in law, social sciences, and other fields or as training for careers in politics, teaching, research, social service, and other areas. The goal of both programs is to enable students to better understand the economic and non-economic issues that are confronted in their jobs and their private lives and to provide the analytical skills that will allow them to resolve these issues. Students interested in a BA in Economics should refer to the Economics Major in the College of Arts and Sciences.

## Distinctive Benefits

Teaching quality - Over one-half of the department's faculty have received awards for teaching
excellence. These faculty teach most of the economics major classes.
Flexible curriculum - economics electives allow students to tailor the program to meet their individual needs.

- Student organizations - Two active student organizations, Omicron Delta Epsilon and The Economics Club, host speakers, banquets, and other functions.

Degrees: Economics (BSBA, MAAE)
Tracks: International Business
Minors: Economics

## Department of Finance

Interim Chair: S. Atkinson; BA 420; 407-823-3575
Faculty: Ajayi, Atkinson, Baker, Borde, Byrd, Cheney, Choi, Dalrymple, Frye, Gilkeson, Greene, McQuillen, Michelson, Millican, Modani, Park, Ramanlal, Scott, S. Smith, Taft, Weaver, Whyte, Winters

The program in finance is designed to provide the student with broad knowledge in finance, including business finance, investments, financial institutions, international finance, risk management and insurance, and real estate. The program provides the student with the theoretical background and tools of analysis required for making effective financial decisions. The study of finance prepares the student for careers in business financial management. Students that major in finance are sought by both financial and non-financial firms.

## Distinctive Benefits

- Students prepare for career opportunities in business and corporate financial management, commercial banking, real estate, investment management and counseling, investment banking, mortgage banking, multinational business, insurance and government.
- Students who major in finance are sought by both financial and non-financial firms.
- The rapidly changing domestic and international economies need individuals who have the skills to make sound financial decisions.


## Degrees: Finance (BSBA)

Tracks: International Business
Minors: International Business

## General Business

Faculty Advisor: B. Moore; BA 229F; 407-823-3166

This option allows students to develop a general program of study which will satisfy career objectives not provided for by the specialized areas of concentration. To pursue this option, students should seek advisement in the Department of Economics. An academic advisor will be assigned to assist each student in developing a meaningful program of study.

Tracks: International Business

## Department of Management

Chair: P. Sweeny; BA 335; 407-823-2679
Faculty: Ambrose, Arnaud, Barringer, Becker, Bogumil, Callarman, Comish, Connell, DeGeorge, Fernald, C. Ford, R. Ford, Gowan, Harrison, Huseman, F. Jones, H. Jones, Neubaum, Putchinski, Quinn, Schminke, Stone, Sweeney, Uhl-Bien, Williams

Tomorrow's managers must be prepared to meet the challenges of a highly dynamic and rapidly changing business environment. The objective of the Management program is to prepare students for the excitement and opportunities that this presents. To learn about management, students study the processes and techniques of leadership, planning, controlling and staffing of both small and large organizations.

The curriculum is designed so that students can choose to concentrate their course work in Human Resource Management, a specialized area of study, or students can choose to major in General Management which allows them to take a broader variety of course work and prepares them for general management responsibilities.

The General Management major prepares students for a career that involves decision making responsibilities regardless of a specific organization or assignment. The department goal is to emphasize the expertise, knowledge, and skills necessary to be not only a team player, but ideally a team leader. Whether the student is studying leadership, motivation, staffing, or international management, the curriculum will sharpen students' skills in problem identification, analysis, and solution. The major can lead to a variety of rewarding careers in management positions throughout the organization. The department offers more specialized training - using the same approach - via our Human Resource Management major. Career paths include positions in training and development, personnel and employee relations, equal opportunity and labor relations, human resource consulting, and more.

## Distinctive Benefits

- Excellent faculty, known for their creativity and enthusiasm in the classroom, and their commitment to students in and out of the classroom.

A broad-based training that will open up opportunities in high-growth career areas.
Internships that provide real-world experience and enhanced job opportunities.
A "hands-on," applied focus in our courses.
Degrees: Management (BSBA)
Tracks: Human Resources, International Business, General Management

## Department of Management Information Systems

Chair: P. Cheney; BA 308; 407-823-3106, Fax 407-823-2389
Faculty: Courtney, Goodman, Halfhill, Hightower, Jiang, Johnson, Leigh, McNair, Odisho, Roberts, Sanders, West, Winters

Information systems form both the backbone and nervous system of virtually every business organization today. With the increasingly important role that information systems play in modern business organizations, the timing could not be better to enter this discipline. The objective of the Management Information Systems (MIS) program is to prepare students for exciting and challenging careers in the information systems arena.

MIS involves the study of how organizations use information and information technology to overcome problems or create oppor-tunities. The MIS major prepares students to become problem solvers in a time when information is advertised as the "fourth factor of production," and in an era when government agencies report that one of ten information technology positions is unfilled.

The MIS major prepares students for such entry-level positions as systems analysts, programmer-analysts, and database analysts by providing them with a thorough grounding in the principles of information system design and construction. The MIS curriculum includes coverage of computer programming, database design and implementation, networks and data communications, systems analysis, systems implementation, managerial decision making, and managerial aspects of organizational information systems. The strength of the major is its combination of technology skills with a thorough grounding in the principles of all the functional areas of business.

The MIS major is ideal for students who excel at solving problems and who can take responsibility for implementing their solutions in working organizational systems. Students in the program are trained to be comfortable shifting between the big picture and the detailed view of a problem and its solution. They also have their communication skills refined so that they are better able to communicate effectively as they discover the nature of the organizational problem (or opportunity), as they present their solutions, and as they manage the system implementation.

Successful MIS graduates have a variety of career options open to them, which lead to high salaries and travel opportunities. While many graduates join internal MIS staffs or consulting firms, there is a wide array of choices available to them. Graduates can choose between large and small companies, emerging or stable industries, and from among a multitude of career paths.

## Distinctive Benefits

- Challenging field of study that rewards inquisitive students who are willing to work toward a goal.

Student internship opportunities throughout the Central Florida region.
An active student organization (MISA).
Excellent job opportunities and starting salary prospects.
Ability for graduates to apply and integrate all of the functional areas of business early in their professional careers.

Degrees: Management Information Systems (BSBA)
Master of Science in Management, Management Information Systems Track (MSM/MIS)

## Department of Marketing

Chair: R. Michaels; BA 310; 407-823-2108;
http://www.bus.ucf.edu/marketing/index.htm
Faculty: Allen, Arnold, Das, Davis, DeGeorge, Desiraju, Echambadi, Fuller, Ganesh, Gundy, Jordan, Michaels, Pimentel, Quaintance, Rubin, Sarkar, White

The Marketing major at UCF is called Impact Marketing 2010, or simply IM2010. It provides a superior education in the basics of marketing such as research, customer behavior, professional selling, management, and strategy. Moreover, a wide assortment of electives is designed to let each student round out his/her education according to specific career interests, whether that might be retailing, advertising, e-business, research, sales, sports marketing, healthcare, or services. Internships are also readily available, and count as a marketing elective. Skills emphasized and developed
throughout the curriculum are teamwork, communication, creativity, quantitative analysis, computing, problem solving, decision-making, thinking globally, driving change, and e-business.

A new benefit for Marketing majors is the opportunity to earn a certificate in any of six areas of career interest: selling and sales management, retailing management, e-marketing, sports marketing management, healthcare marketing, and services marketing. Students can design a personalized certificate program combining elective courses with an internship that will enhance their value to potential employers.

The department offers a minor in Marketing. This course of study provides a strong basic education in Marketing for business students with majors other than Marketing or students with majors from other colleges. Taking a minor in Marketing can add significant value and career flexibility for any student. Another new offering is a Marketing track within the International Business program, a strong International Business education with the career flexibility offered by a degree in marketing.

Marketing is vitally important to all organizations and individuals, from global corporations to small businesses, from CEOs to the proprietors of small retail stores, from global manufacturing operations to a new dot com startup. Nearly one-third of the civilian work force in the United States is employed in jobs related to marketing. Marketing offers a variety of interesting and challenging career opportunities, such as professional selling, retailing, advertising, marketing research, sports marketing, distribution and logistics, purchasing, and e-business. In addition, students with marketing degrees may find excellent job prospects in international markets. Marketing career opportunities also exist in a variety of non-business organizations, including hospitals, museums, universities, and government and social service agencies. Marketing also tends to provide a strong career foundation for movement into top management positions.

## Distinctive Benefits

IM2010 program for Marketing majors recognized as one of the most innovative in the country.
Department offers a minor in Marketing as well as a Marketing track within International Business.

Twenty dynamic faculty members are among the strongest teachers in the college.
Comprehensive course offering each semester and summer -you can finish!
Full-time faculty teach approximately $90 \%$ of undergraduate classes offered by the Department.
Strong emphasis on preparing students for marketing management careers.
Department awards approximately 15 scholarships annually on a competitive basis.
Opportunities to participate in honors in the major, internships, independent projects, and directed
studies.
Opportunities to participate in national award-winning student chapters of Pi Sigma Epsilon and the American Marketing Association.

For more information, visit http://www.bus.ucf.edu/marketing/index.htm, or call 823-2108.
Department office is located in BA353. Chair: Ronald E. Michaels
Degrees: Marketing (BSBA)
Minor: Marketing
Certificates: Selling and Sales Management, Retailing Management, e-Marketing, Sports Marketing Management, Healthcare Marketing, Services Marketing

Tracks: International Business

## International Business Tracks

The continuing growth of multinational corporations, international trade and finance, and international strategic alliances underscores the need for skilled managers equipped to handle the complexities of a global economic environment. Compared to a purely domestic operation, international business presents unique opportunities and challenges that require drastically different responses. The international business tracks are designed to provide skilled managers who are equipped to analyze the complexities of operations of businesses in multinational environments.

The increasingly global nature of business has made it a standard practice for firms to require that candidates for top management positions have prior training or experience in international operations. In addition, large financial services organizations and insurance companies, governments, and transnational organizations also have a growing need for managers who understand international business. The tracks are designed to meet the growing worldwide demand for graduates with greater managerial and technical capabilities in transnational business operations. Each track requires 27 credit hours beyond the CBA Common Body of Knowledge (CBK). The 27 credit hours are made up of a combination of required courses in the functional areas, required international courses, and restrictive electives. The required international courses are drawn from a group of six courses that constitute the core of international business. Students in the various tracks are required to take at least three of the six courses and in some cases students may elect to take up to all six courses. This ensures that graduates of the program are adequately equipped to supply the International Business expertise needs of our clientele.

## Distinctive Benefits

Holistic, presenting an overall global perspective of the business operation as a system.

- Multidisciplinary, combining expertise from various business and non-business areas.
- Environmental driven, responsive to the changing demands of economic, financial, political, socio-cultural, legal, and technological forces.
- Experiential, providing opportunities for practical experiences on foreign market penetration strategies, evaluation of investments abroad, international negotiations, and international market research.
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## COLLEGE OF EDUCATION

Dean: Sandra L. Robinson; ED 328; 407-823-5529
Associate Dean: Michael C. Hynes; ED 146; 407-823-6076
Associate Dean: Jennifer C. Platt; ED 328; 407-823-2046
Assistant Dean: Suzanne M. Martin; ED 328; 407-823-4260

## http://edcollege.ucf.edu/

The role of the College of Education at the undergraduate level is to prepare students for careers as early childhood, elementary, secondary, exceptional, physical, and vocational education teachers. The College of Education offers Bachelor of Science degrees with the following majors:

Art Education
Early Childhood Education
Elementary Education
English Language Arts Education
Exceptional Student Education
Foreign Language Education
Mathematics Education
Physical Education
Science Education
Social Science Education
Vocational Education and Industry Training

## Admission to the College of Education

Admission to the College will be granted when students meet the following requirements:

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university

Have a minimum 2.5 overall GPA
Pass all four parts of the CLAST examination (no alternatives are accepted)
Complete common program prerequisite courses
(A separate application/deadlines are required for Early Childhood Education majors)

Notice of Program Changes Under Revision

This catalog represents a significant change in program requirements from previous years. Students under earlier catalogs should carefully review all degree requirements before changing to this catalog. General Education and Common Program Prerequisite requirements, changed as a result of the revisions to State Board of Education Rule 6A-5.066, will become effective for all students admitted in the Fall 2001 catalog and beyond. Upper level requirements, changed as a result of the rule revision, are effective for all students admitted in the Fall 2000 catalog and beyond. For specific program of study information, consult the College of Education website at http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## Office of Student Services

Director: Tina Smilie; ED 109; 407-823-3723

The College of Education Office of Student Services assists students with orientation, registration, and academic advisement for Education Pending students, college and university academic requirements and graduation certification. Students are assigned a faculty advisor upon meeting College of Education admission requirements. Information regarding majors offered by the College of Education can be obtained in the Office of Student Services.

Admission to the University of Central Florida does not imply admission to the College of Education. Students will be allowed to enroll only in the 3000/4000 level courses taught by the College of Education after they have been admitted to the College. Students admitted to the College of Education will need to meet additional requirements in order to be fully admitted to Teacher Education. Students are encouraged to make an early appointment with an academic advisor.

## Office of Clinical Experiences

Director: Donna Walker-Knight; ED115; 407-823-2436

Clinical experiences provide students with a broad range of instructional experiences in various school settings developed through cooperative planning with local school administrators and teachers.
Clinical experiences are an integral part of every degree program and consist of early field experiences as well as Internship I and Internship II. Placement of students is the responsibility of the College of Education.

## Admission to Internship I

Admission to Internship I will be granted when students who have been admitted to the College of Education meet the following additional requirements:

Have on file in the University admissions office passing scores on all 4 parts of the College Level Academic Skills Test (CLAST)

Possess minimum overall GPA of 2.5
Achieve a "C" (2.0) or better in all prerequisite methods/specialization courses
Complete a formal application for Internship I by deadline
Be recommended by the faculty of the department of the student's major
Meet any special departmental requirements
Possess minimum specialization GPA of 2.5
Possess minimum professional preparation GPA of 2.5

Internship I is a six semester hour experience. Students are assigned to work with certified supervising teachers under the direction of a College faculty coordinator. Students are enrolled in a limited number of related professional courses during the experience. Additional courses may be taken only with the consent of the department chair.

Students must be aware: if they have been arrested for certain crimes, they may not be able to be hired as a teacher. Application for Internship I is made through the Office of Clinical Experiences.

## Admission to Internship II

Internship II is a 12 semester hour experience normally completed during the student's last semester. The clinical experience is considered a full-time experience, and students are permitted to enroll in other classes only with the consent of their department chair. Admission to Internship II will be granted when students have completed the following requirements:

- Successfully complete Internship I

Have on file in the University admissions office passing scores on all four parts of CLAST
Possess a minimum overall GPA of 2.5
Possess minimum professional preparation GPA of 2.5
Possess minimum specialization GPA of 2.5
A minimum grade of $\mathrm{C}(2.0)$ is required in EDG 4323; however, a minimum GPA of 2.5 is required in the professional preparation area

Complete a formal application for Internship II by deadline
Be recommended by the faculty of the department of the student's major
Meet any special departmental requirements

Students must also have completed all methods courses and most of their specialization courses. Some programs (such as Elementary Education) require all specialization courses to be completed prior to Internship II. Students must also be approved for admission by the faculty in the department of the student's major. Internship II experience is completed locally. Guest internships will not be permitted. Students must be aware: if they have been arrested for certain crimes, they may not be able to be hired as a teacher. Application for Internship II is made through the Office of Clinical Experiences.

## Application deadlines are as follows:

February 15 for Fall semester
September 15 for Spring semester

## Graduation Requirements

To qualify for graduation, a student must successfully complete all coursework to include a minimum overall GPA of 2.5 , a minimum 2.5 GPA in all specialization courses, and a minimum 2.5 GPA in professional preparation courses. In addition, students must pass the professional education and the subject area exam of the Florida Teacher Certification Exam (FTCE) to meet graduation requirements.

## Departments

## Department of Educational Foundations

Chair: Karen L. Biraimah; ED243; 407-823-2426
Assistant Chair: Marcella Kysilka; ED355; 407-823-2011
Faculty: Allen, Baumbach, Boote, Condly, Cornell, Crouse, Deets, Dziuban, Gunter, Gustafson, Hatcher, Hiett, Holt, Hutchinson, Kaplan, Koger, Kubala, Lange, Lee, Loudermilk, Luckett, Lynch, Miller, Orwig, Short, Sivo, Sluti, Sullivan, Thomas, Wise, Witta, Wood

The department serves all students in the College of Education by providing instruction in the core professional courses that address the competencies and skills needed by all undergraduate education majors. These courses emphasize learning theory, teaching strategies, technology, multicultural education, and the social, philosophical, and historical foundations of education. The Department administers the university-wide Service Learning Program for undergraduate students.

The department provides courses for all masters and doctoral programs in education, coordinates the core courses for the Curriculum and Instruction Doctoral Program, and houses the Masters Curriculum and Instruction Program. The Department also offers Graduate Certificate programs in Initial Teacher Certification and Middle Level Education.

Educational Foundations graduate courses provide opportunities for students to advance their knowledge and application skills related to research methods, data analysis, educational measurement, multicultural education, psychological, social, historical and philosophical foundations, curriculum, and instructional theories, inquiry and critical analysis. Instructional Technology, Educational Technology, and Educational Media are programs offered through the Department of Educational Foundations.

## Department of Human Services and Wellness

Chair: Wilfred D. Wienke; ED214; 407-823-2598
Faculty: Angelopoulos, Balado, Blanes, Bollet, Casado, Clark, Cross, Ezell, Fisher, Gergley, Hayes, Higginbotham, Hines, Jones, Kazoroski, Klein, Little, Lue, Martin, Miller K. , Miller M., Mitchell, Mumford, Olson, Pankaskie, Platt, Renner, Robinson, Rohter, Schulte, Smalley, Taub, Ware, Woodson, Young

Undergraduate academic major programs leading to bachelor's degrees and certification are offered in Human Services and Wellness. The department includes specialties in; (a) emotionally handicapped; (b) mentally handicapped and (c) specific learning disabilities at the K-12 levels. The Physical Education program is a $\mathrm{K}-8$ specialization. In addition, $6-12$ secondary certification and coaching
certification programs are available. Students are responsible for completion of program requirements and are encouraged to review their programs with an assigned advisor. Several graduate level programs are available in the department.

The Master of Education in Exceptional Education: Varying Exceptionalities is available for teachers already certified in an area of exceptional education, whereas the Master of Arts in Exception Student Education: Varying Exceptionalities is designed for non-education majors or previously certified teachers in another field. Each program may lead to teacher certification.

Also available is the Master of Arts in Physical Education with emphasis in Exercise Physiology and Wellness. Certification and Master's level programs are available in Counselor Education, with emphases on school counseling or mental health counseling. A Specialist Program is available in School Psychology. Several doctoral options are available through the Curriculum and Instruction program.

## Department of Instructional Programs and Educational Leadership

Chair: Jeffrey W. Cornett; ED346; 407-823-5791
Assistant to the Chair: Lance Tomei; ED 344; 407-823-0523
Faculty: Armstrong, Blair, Bozeman, Brewer A., Brewer T., Brumbaugh, Buchoff, Camp, Coletti-Ingold, Cornett V., Crawford, Dixon, Dombrowski, Englehart, Everett, Gaudelli, Gurney, Hancock, Hartle, Hopkins, House, Hudson, Hughes, Hynes, Joels, Johnson, Lynn, Magann, Manning, Middleton, Mills, Murray B., Murray K., Neville, Ortiz, Pagan, Palmer, Paugh, Pawlas, Roberts, Robinson, Romjue, Siebert, Sweeney, Tabscott, Taylor, Torbert, Tubbs, Verkler, West, Wienke, Williams, Wilson, Zygouris-Coe

## Early Childhood Education

Students who major in Early Childhood Education are qualified to teach Pre-Kindergarten through grade 3 upon graduation and receipt of a Florida Teaching Certificate.

## Elementary Education

The Elementary Education program is planned for students interested in the education of children, six through twelve years of age. Students who major in elementary education are qualified to teach grades one through six upon graduation and receipt of a Florida teaching certificate.

## Secondary Education

Career programs are available for prospective teachers who have an interest in working with adolescent students in a specific academic area at the middle, junior, or high school levels. Specialization is available in Art, Biology, Chemistry, English, Foreign Language, Mathematics, Physics, and Social Science.

## Vocational Education and Industry Training

The Vocational Education degree is for individuals in Industrial/Technical areas or selected Health Occupations who desire to be teachers in secondary or post-secondary schools (or trainers in industry or health care facilities). Through course examination, or licensure in an occupational specialization, a student may receive a maximum of 30 semester hours toward the degree. This degree also includes initial courses required for Florida Vocational Teacher Certification in selected areas.

## Alternative Certification for Non-Degree Students

All students who have earned a Baccalaureate degree from an accredited institution and who desire to be certified in Elementary Education must complete an undergraduate or master's degree program in Elementary Education. For other certification areas for which the College has programs, students may elect to complete 1) an undergraduate degree 2) a graduate degree or 3 ) an alternative program as a post-baccalaureate student. Students must meet regular admission requirements for the College of Education and Teacher Education.
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## College of Engineering and Computer Science

Dean: M.P. Wanielista; EB II 202; 407-823-2156
Associate Dean: D.R. Reinhart; EB II 202; 407-823-2156
Associate Dean and Director of School of Electrical Engineering and Computer Science: E. Gelenbe;
CSB 260; 407-823-0345
Assistant Dean for Academic Affairs: J. F. Nayfeh; ENGR 107; 407-823-2455
Assistant Dean for Graduate Affairs: I. Batarseh; ENGR 107; 407-823-2455
Assistant Dean for Distributed Learning: R. Eaglin; ENGR 207; 407-823-5937
Director, Academic Support Services: M. M. Orr; ENGR 107; 407-823-2455
Director of College Honors Programs: A. J. Gonzalez, ENGR 407; 407-823-5027

## Undergraduate Majors and Degrees

Aerospace Engineering
Civil Engineering

Concentration
Computer Engineering
BSCE
BSCpE
Computer Engineering - Software Engineering Concentration

Computer Science
Electrical Engineering
Electrical Engineering - Wireless Communication
Concentration
BSEE
Electrical Engineering Technology - Computer Systems
Concentration
BSEET
Electrical Engineering Technology - Electrical Systems
ConcentrationBSEET
Engineering Technology - Design Concentration ..... BSET
Engineering Technology - Operations Concentration ..... BSET
Environmental Engineering BSEnvE
Industrial EngineeringBSIE
Information Systems Technology ..... BS
Information Technology ..... BS
Mechanical Engineering - Energy Systems Concentration BSME
Mechanical Engineering - Mechanical SystemsConcentration
Mechanical Engineering - Materials Concentration

BSME
BSME

## Integrated BS/MS Degree Program

All of the Engineering and Computer Science departments except for the Departments of Civil and Environmental Engineering, Engineering Technology, and the Information Technology Program are offering an integrated BS/MS degree program which will allow students of high academic standing to complete an MS degree at an accelerated pace. The generic rule for students in this program is that they will be allowed to use nine hours of intermediate level (5000) graduate courses with a grade of " B " or higher toward fulfillment of both the BS and MS degree requirements. Interested individuals should see the individual program descriptions in the graduate and undergraduate catalogs. They may also contact the department Assistant Chair and/or Graduate Coordinator if they have any further questions.

## College of Engineering and Computer Science Vision

As the College of Engineering and Computer Science progresses towards the 21st century, it envisions a community that offers undergraduate and graduate programs of the highest quality. We are a community that seeks to achieve excellence through a collaborative effort in teaching and graduate
research resulting in increased national and international prominence. The College of Engineering and Computer Science will continue to foster a community of scholars in search of knowledge and a commitment toward promoting engineering and computer science as professions. Interaction with our metropolitan partners will assure our success in becoming one of America's leading partnership communities. The future of the College of Engineering and Computer Science includes an educational environment that is inclusive and diverse.

## College of Engineering and Computer Science Mission Statement

The UCF College of Engineering and Computer Science (COECS) is committed to providing the highest quality professional undergraduate and graduate education possible. The COECS will continue to achieve national and international recognition through state of the art classroom instruction and innovative research programs. In order to respond to the needs of the public, the COECS will actively pursue partnerships with the local and global community. In pursuing our mission we are committed to promoting an environment that is inclusive and diverse in all of our endeavors.

## College of Engineering and Computer Science Core Values

Honesty: We tell the truth and are aboveboard and candid.

Integrity: We foster trust and are consistent, always taking responsibility for our actions.

Professionalism: We adhere to a professional code of ethics, continuing to learn while striving for excellence.

Family: We pursue life outside of our professional environment, giving our family a priority.

Altruism: We work as a team, help each other, and sacrifice for the common good. We understand that our work is part of a larger purpose and plan.

## College of Engineering and Computer Science Goals

We as a community of scholars will:
Modernize our classroom and research resources,
Excel in operations to increase student and faculty satisfaction,
Renew our curriculum,
Increase our cultural diversity and recruitment efforts, and
Target research with funding from external partnerships to maintain scholarly activity and student quality.

Students who seek a challenging technical career in research and development, design, technical sales, manufacturing, management, teaching, or other professions requiring a methodical, creative solution to problems should seriously consider pursuing an education in engineering, engineering technology, or computer science. The internationally-recognized faculty of the College of Engineering and Computer Science, together with its strong curricula of undergraduate and graduate programs, provide an opportunity for ambitious, responsible men and women to become the leaders of our increasingly technological world. Because of the significance of science and technology to our everyday lives, today's engineer, engineering technologist, and computer scientist must be aware of the impact of his or her creations on society. In addition to the public health and welfare, aesthetics, economics, and energy-use implications, our graduates also consider environmental, sociological, and other humanistic costs. A degree from the College of Engineering and Computer Science is also recognized as a valuable asset to those entering other professional pursuits such as the medical or law professions, architecture, education, the military professions, or even politics.

## College Organization

The College of Engineering and Computer Science is organized into three major divisions: the Engineering and Computer Science Division, the Engineering Technology Division, and the Reserve Officer Training Corps (ROTC) Division. The Engineering and Computer Science Division is comprised of the School of Electrical Engineering and Computer Science (SEECS) and three engineering departments: the Civil and Environmental Engineering (CEE) Department, the Industrial Engineering and Management Systems (IEMS) Department, and the Mechanical, Materials and Aerospace Engineering (MMAE) Department. The School of Electrical Engineering and Computer Science is comprised of the Electrical Engineering, Computer Engineering, Computer Science, and Information Technology programs. The Engineering Technology Division is comprised of the Engineering Technology (ENT) Department, and the ROTC Division is made up of the Aerospace Studies Department (Air Force ROTC) and the Military Science Department (Army ROTC).

All components of the Engineering and Computer Science Division, except Information Technology, also offer advanced studies leading to master's degrees and the Doctor of Philosophy degree; see the Graduate catalog for further information on these graduate programs. All undergraduate engineering programs are fully accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place \#1050, Baltimore, MD 21202-4012, Telephone: (410) 347-7700, Fax: (410) 625-2238. ABET is recognized by the U.S. Department of Education as the sole agency responsible for accreditation of educational programs leading to degrees in engineering, engineering technology, and related engineering areas. The Computer Science program is accredited by the Computer Science Accreditation Commission (CASC) of the Computing Sciences Accreditation Board (CASB).

The Engineering Technology Division and Department offers baccalaureate concentrations in Design and in Operations, both leading to the Bachelor of Science in Engineering Technology (BSET) degree, and concentrations in Electrical Systems and in Computer Systems, both leading to the Bachelor of Science in Electrical Engineering Technology (BSEET) degree. Both the BSET and BSEET degrees are accredited by the Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, \#1050,Baltimore, MD 21202-4012, Telephone: (410) 347-7700, FAX: (410) 625-2238. The Engineering Technology Department also offers a Bachelor of Science degree in Information Systems Technology (BS). This degree is designed for students with a two-year degree in Computer Networking/Programming to obtain a BS degree.

The College houses the ROTC Division for those students desiring to pursue military training while earning their degree. The AFROTC program offers a minor in Aerospace Studies, and the AROTC program offers a minor in Military Science.

## The Honors Program in the College of Engineering and Computer Science

The engineering and computer science leaders of tomorrow must not only have impeccable technical credentials, but must also be able to provide strong leadership within the general community in which they live. With this in mind, the Honors Program in the College of Engineering and Computer Science offers outstanding undergraduate engineering, engineering technology, and computer science majors an enriched educational, technical, professional and cultural experience that significantly augments the basic curricula. Honors students comprise academically superior students who commit, upon acceptance into the program, to do broad as well as advanced work in a chosen area.

The objective of the Honors Program is to provide exceptional students with an opportunity to express their creativity and problem-solving abilities through challenging coursework and participation in research projects. In addition, the program exposes students to a wide variety of issues dealing with
the role of engineers and computer scientists and the impact of the profession on society. Honors students also participate in several programmed activities, such as lectures by distinguished scholars, engineers, and public figures, visits to local and regional industries and to governmental and military research facilities.

There are two programs available to eligible COECS students: 1) the University Honors Program (see the section on the University Honors Program found in THC section of this catalog) and 2) the Honors in the Major Program (HIM).

## The Honors in the Major Program

The College of Engineering and Computer Science Honors in the Major program is designed for two types of students: 1) Highly qualified students who did not participate in the University Honors Program and would like to have the experience of an Honors curriculum, and 2) University Honors program students who desire to continue the Honors curriculum beyond what the University Honors Program offers. The centerpiece of the Honors in the Major program is the opportunity to undertake independent research as an undergraduate under the guidance of a faculty member in his/her major. The Honors in the Major represents a total of six semester hours of work. These credit hours are acceptable as technical electives by all programs except for Electrical and Computer Engineering. Electrical and Computer Engineering students in the HIM program use the HIM credits in lieu of Senior Design. These six credit hours consist of an Honors in the Major Seminar titled Research Methods in Engineering (EGN 4931H) (three semester hours), plus three semester hours of Undergraduate Honors Thesis (EGN 3XXXH).

The latter will result in an undergraduate thesis which will describe the research done by the student. The student will defend his/her thesis before a committee of faculty in the field as part of an oral examination covering the honors work. A sponsoring faculty member is required to supervise the undergraduate thesis.

In order to be admitted to the Honors in the Major program, the student must:

1. Have at least 60 semester hours, including at least 12 graded, upper division semester hours at UCF.
2. A minimum UCF GPA of at least 3.20 in all upper division courses.
3. A minimum GPA of 3.50 or more in the Engineering option courses.
4. A recommendation by a sponsoring faculty member.

Exceptions to the eligibility criteria may be made by the

College Honors Committee in individual cases, upon
recommendation by a sponsoring faculty member.
To successfully complete the HIM program and receive said designation, the student must successfully defend the thesis and graduate with a minimum 3.5 GPA in the option courses, and minimum 3.2 GPA at UCF. No exceptions to this policy will be made for graduation. Successful candidates will be awarded an Honors in Engineering/Engineering Technology/Computer Science mention on the diploma and transcript, representing satisfactory completion of the program. Moreover, each department will award a limited number of graduate scholarships (with tuition waivers) to those who apply for graduate school and have successfully completed this program.

Application for admission to the Honors in the Major Program must be made to the College of Engineering and Computer Science Honors Director, Avelino Gonzalez, Engineering Building, room 411. For more information about THC programs, please visit their homepage at http://pegasus.cc.ucf.edu/~honors/.

## The LEAD Scholars Program in the College of Engineering and Computer Science

Engineering, engineering technology, and computer science students may also participate in the LEAD (Leadership Enrichment and Academic Development) Scholars Program (see the section on the LEAD Scholar Program found elsewhere in this catalog).

## Additional Information on UCF Baccalaureate Engineering, Engineering Technology, and Computer Science Programs

Information on each UCF engineering, engineering technology, computer science, and information technology program follows, and more current information can be found on the College home page at http://www.engr.ucf.edul, and on the home pages of each department. For the home page associated with a particular program, see the listing for that department on the following pages of this catalog.

## College of Engineering and Computer Science Departments

## Department of Civil and Environmental Engineering

Chair: A.E. Radwan; EB II 211; 407-823-2841,
Fax: 407-823-3315

Faculty: Abdel-Aty, Al-Deek, Block, Chopra, Cooper, Dietz, El-Tawil, Hagen, Head, Hong, Kunnath, Kuo, Nnadi, Oloufa, Onyemelukwe, Randall, Reinhart, J. Taylor, Wanielista, Wayson, Yeh

The Civil and Environmental Engineering Department (CEE) offers baccalaureate degrees in both Civil Engineering (BSCE) and Environmental Engineering (BSEnvE).

## The Civil Engineering Program

The Civil Engineering major is concerned primarily with fundamental civil engineering design and analysis in such areas as structures, geo-technical engineering, sanitary engineering, water resources, transportation engineering, and construction engineering. Civil Engineering students are required to take a minimum of two Project Design Courses (out of six offered), which synthesize various pre-requisite course offerings into a design project. These projects are usually "open-ended" and duplicate real world engineering problems. The students typically work in small design team groups. The pre-requisites needed for the various project courses vary.

## Mission

The Civil Engineering Program Faculty strives to create a high quality learning experience for our students. The principal goals include:

1. Provide a broad engineering education to our graduates that will prepare them for both current and future professional challenges.
2. Promote a commitment to continued scholarship and service among our graduates.
3. Foster a spirit of innovation so that our graduates are positioned to take advantage of new technology in our profession.
4. Promote an environment that is inclusive and diverse.
5. To attain prominence in key areas of Civil Engineering graduate education and research.

## Educational Objectives

1. Produce graduates who have technical knowledge that is fundamental to the principles of critical areas of Civil Engineering such as structures, geo-technical, water resources, transportation, construction, surveying, and environmental.
2. Provide a professional engineering education that challenges our graduates to think critically and that will prepare them for a successful professional career.
3. Ensure that all our undergraduate students gain experience in applied engineering design within a broad curriculum.
4. Form and maintain partnerships with industry, government agencies, and professional organizations.
5. Develop awareness of the changing needs of society and local, state, national, and global environment and infrastructure.
6. Provide our graduates with a strong knowledge base to enhance their professional skills and develop their abilities to perform credible research.

## The Environmental Engineering Program

The Environmental Engineering major is concerned primarily with the interactions with humans and their environment and the planning, design, and control of systems for environmental quality management for water, land, and air environments. Environmental Engineering students are required to take a minimum of two Project Design Courses (out of four offered) which synthesize various pre-requisite course offerings into a design project. These projects are usually "open-ended" and duplicate real world engineering problems. The students typically work in small design team groups. The pre-requisites needed for the various project courses vary.

## Mission

The Environmental Engineering Program Faculty strives to create a high quality learning experience for our students. The principal goals include:

1. Provide a broad engineering education to our graduates that will prepare them for both current and future professional challenges.
2. Promote a commitment to continued scholarship and service among our graduates.
3. Foster a spirit of innovation so that our graduates are positioned to take advantage of new technology in our profession.
4. Promote an environment that is inclusive and diverse.
5. To attain prominence in key areas of Environmental Engineering graduate education and research.

## Educational Objectives

1. Produce graduates who have technical knowledge that is fundamental to the principles of critical areas of Environmental Engineering such as solid waste, air pollution, water and wastewater treatment, and water resources.
2. Provide a professional engineering education that challenges our graduates to think critically and
that will prepare them for a successful professional career.
3. Ensure that all our undergraduate students gain experience in applied engineering design within a broad curriculum.
4. Form and maintain partnerships with industry, government agencies, and professional organizations.
5. Develop awareness of the changing needs of society and local, state, national, and global environment and infrastructure.
6. Provide our graduates with a strong knowledge base to enhance their professional skills and develop their abilities to perform credible research.

The mission statement and objectives for the Civil Engineering and Environmental Engineering programs are electronically posted and continuously updated. More information on the Civil and Environmental Engineering programs can be found on the CEE Department home page at http://www-cee.engr.ucf.edu.

## Department Policy for Dual BS Degrees in Civil and Environmental Engineering

The faculty of the Civil and Environmental Engineering Department believe that a dual degree from our department should reflect a significant achievement of students, and therefore a significant increase in knowledge and formal coursework above the requirements for a single degree. Any undergraduate in Civil or Environmental Engineering desiring to obtain his or her Bachelor's degree in both disciplines shall meet the following requirements:

- the student shall meet all individual requirements for each degree
- the student shall take 24 hours of approved courses beyond the requirements for a single degree
the coursework must include a minimum of our different capstone design courses, two from each program
- the student shall notify the Chair of his or her intention to pursue a dual degree at least two full semesters prior to the expected graduation date, and shall have a "program of study" prepared and approved by the Chair


## Additional notes:

All students, by meeting the requirements for each degree, will be able to represent themselves as either a Civil Engineer or an Environmental Engineer or both.

The 24 hours represents two additional semesters of full time enrollment, and represents the minimum requirements for a second degree.

- The 24 hours of courses beyond a single degree means that, currently, 152 hours of approved coursework would be required for the dual degree.

The 24 hours of courses would include all the required courses of the other discipline ( 15 hours) plus two additional capstone design courses plus one technical elective (as approved by the Chair).

The dual degree program for a student must be approved by the Chair in the final year. This eliminates last-minute confusion by the student and allows the Chair time to review the technical elective, and the specific design courses being taken by each student.

## School of Electrical Engineering and Computer Science

Director: E. Gelenbe; CSB 260; 407-823-0345
Faculty: Allen, Bassiouni, Batarseh, Bauer, Brigham, DeMara, Deo, Dutton, Enger, Favorov, Franceschini, Frederick, Gelenbe, Georgiopoulos, Gerber, Gomez, A. Gonzalez, F. Gonzalez, Guha, Haralambous, Hua, Hughes, Jones, Kasparis, Klee, Lang, Leeson, Linton, Liou, Llewellyn, Lobo, Malocha, Marin, Mikhael, R. Miller, Moshell, Mukherjee, Myler, Orooji, Parsons, Petrasko, R. Phillips, Qu, Richie, Rogers, Rolland, Shah, Sundaram, Vemulapati, Wahid, Walton, Workman, A. Wu, T. Wu, Yuan, Zalewski

## Electrical and Computer Engineering Programs

The Electrical and Computer Engineering programs offer baccalaureate degrees in both Electrical Engineering (BSEE) and Computer Engineering (BSCpE). Graduate degrees leading to the Master of Science in Engineering (M.S.E.) and Doctor of Philosophy (Ph.D.) are also offered.

The curriculum provides an integrated experience including humanities and social sciences, mathematics and basic sciences, engineering core, computing, and design experience. The laboratory experiences appropriately combine theory and practice in the Electrical and Computer Engineering programs through a logical progression of courses. Design experiences start with the first circuits course, EGN 3373, and progress to the senior design capstone courses. This senior design experience is a two-semester sequence totaling six credit hours. Aspects of engineering economics, administration, oral presentation, professional issues such as ethics, safety and environmental impact are also covered in the design courses. The design projects required in the design course sequence address real-life problems, and the students work in a team setting. Also, several projects are developed jointly with our industrial partners.

## The Computer Engineering Program

The Computer Engineering program contains a minimum of 24 credit hours of design experience, which includes courses listed as Computer Systems Design I and II (EEL 4767C and EEL 4768C), Engineering Applications of Computer Methods (EEL 4832), Engineering Data Structures (EEL 4851C), and Introduction to Digital Circuits and Systems (EEL 3342C). Technical electives can give additional design experiences in specialty areas such as computer architecture, intelligent systems,
networking, software engineering, and simulation systems.

## Mission

The mission of the Bachelor of Science in Computer Engineering Degree Program is to educate students to become highly skilled in the principles and practices of computer engineering and develop computer engineers that meet market needs.

## Objectives

1. Graduates will acquire sufficient academic competence in fundamental math, science, and engineering principles for employment in computer engineering.
2. Graduates will acquire sufficient academic competence for advanced graduate studies.
3. Graduates will demonstrate overall competence in the computer engineering discipline, including the ability to design systems and processes, conduct and analyze experiments, and learn and utilize computer skills.
4. Graduates will demonstrate overall competence in communication skills, computer skills, and problem solving skills, and the ability to work in interdisciplinary teams.
5. Students are recognized by their employers for their knowledge and skills in solving real world problems, and for their professionalism.

## The Electrical Engineering Program

The Electrical Engineering program contains a minimum of 18 credit hours of design experience. This is achieved through such courses as Linear Control Systems (EEL 3657), Electronics I and II (EEL 3307C and EEL 4309C), Digital Signal Processing (EEL 4750), Signal Analysis and Communication (EEL 3552C), Computer Systems Design I (EEL 4767C) Electrical Networks (EEL 3122C) and Digital Circuits and Systems (EEL 3342C). Technical electives can give additional design experience leading to work in communications, controls, image and signal processing, microelectronics and solid state devices, microwaves and electromagnetics, optical engineering, and power/power electronics.

## Mission

The mission of the Bachelor of Science in Electrical Engineering Degree Program is to educate students to become highly skilled in the principles and practices of electrical engineering and develop electrical engineers that meet market needs.

## Objectives

1. Graduates will acquire sufficient academic competence in fundamental math, science, and engineering principles for employment in electrical engineering.
2. Graduates will acquire sufficient academic competence for advanced graduate studies.
3. Graduates will demonstrate overall competence in the electrical engineering discipline, including the ability to design systems and process, conduct, and analyze experiments, and learn and utilize computer skills.
4. Graduates will demonstrate overall competence in communication skills, computer skills, and problem solving skills, and the ability to work in interdisciplinary teams.
5. Students are recognized by their employers for their knowledge and skills in solving real world problems, and for their professionalism.

The mission statement and objectives for the Computer Engineering and Electrical Engineering programs are electronically posted and continuously updated. More information on the Computer and Electrical Engineering programs can be found on the ECE home page at http://www-ece.engr.ucf.edu/.

## The Computer Science Program

The Computer Science program offers courses and programs leading to Bachelor of Science, Master of Science (see Graduate Catalog), and Doctor of Philosophy (see Graduate Catalog) degrees in Computer Science. In addition, the program offers minors in Computer Science, Applied Computer Science, and Computer Information Technology.

The program strives to meet the information technology personnel needs of the community by producing graduates with a broad base of formal course work. Students may use required elective credit to concentrate their degree in one of many research areas, including computational biotechnology, computational complexity, computational geometry, computer architecture, computer graphics, computer networks, computer simulation, computer vision, databases systems, design and analysis of algorithms, distributed computing, digital media, evolutionary computing, graph theory, machine learning, natural language processing and knowledge-based systems, neural networks, operating systems, parallel processing, software engineering and VLSI design tools and hardware algorithms.

Research facilities are organized around laboratories directed by faculty members. Facilities in these laboratories change rapidly, and are generally funded through external research grants, supplemented by grant matching and startup funds from SEECS. To learn about the current status of research facilities and projects, visit faculty web pages. These may be found by following links from the computer science home page at http://www.cs.ucf.edu/.

## Mission

The mission of the Bachelor of Science in Computer Science Degree Program is to educate students in the science and practices of computer science, preparing them for graduate school, for careers in information science and technology, and for a lifetime of learning.

## Objectives

1. Graduates will learn the principles and practices of computer science, along with the mathematical foundations of this discipline.
2. Graduates will obtain the skills to solve complex problems via the development of models, and the design, implementation, and analysis of computer realizations of these models.
3. Graduates will receive an education that enables them to enter and be successful in academically strong graduate programs in computer science and related disciplines.
4. Graduates will be prepared for successful careers in information science and technology. This preparation will include the abilities to work in teams, to communicate effectively, and to experience a lifetime of learning.

## The Information Technology Program

The Information Technology program offers courses leading to the Bachelor of Science degree in Information Technology. The program provides students a strong conceptual core, which will prepare them to be lifelong learners, along with significant hands-on experience. The inclusion of advanced courses in technical writing, a course in ethics, and five upper division courses in an area outside information technology will prepare these students to deal with the subject areas and communicate in the parlance of the industries in which they choose to work. Basically, students will have an interdisciplinary core in which the principles and practices of the three disciplines of the School are presented in a cohesive, connected manner. They will then create their own multidisciplinary component by taking upper division courses that are typically outside the College of Engineering and Computer Science.

## Mission

The mission of the Bachelor of Science in Information Technology Degree Program is to educate students in the science and practices of information technology, preparing them for a lifetime of learning and for careers in information technology as
well as in a wide variety of disciplines that integrate information technology into their respective fields of activity.

## Objectives

1. Graduates will learn the principles and practices of information technology, along with the mathematical and engineering foundations of this discipline.
2. Graduates will obtain the skills to solve complex problems via the development of models, and the design, implementation, and analysis of computer realizations of these models.
3. Graduates will receive an education that enables them to design, implement, and administer complex distributed information systems, including the archival databases and the communication infrastructures associated with such systems.
4. Graduates will obtain a strong background in at least one discipline, outside information technology, in which information technology plays a critical role.
5. Graduates will be prepared for successful careers in information technology. This preparation will include the abilities to work in teams, to communicate effectively, and to experience a lifetime of learning.

## School of Electrical Engineering and Computer Science Policies and Procedures

The School's web site (http://www.seecs.ucf.edu) is a central point from which visitors may view current policies and procedures of our programs. In particular, links from this page provide up-to-date answers to frequently asked questions (FAQ's) concerning academic advisement, student professional societies, undergraduate research opportunities, and means to effectively communicate concerns (comments, suggestions, complaints). We ask that you visit this site and follow its guidelines before you send e-mail and letters, or make phone calls to faculty members and administrators.

Minors: Applied Computer Science, Computer Information Technology, and Computer Science
Certificates: Applied Computer Science and Computer Information Technology

## Department of Industrial Engineering and Management Systems

Chair: Charles H. Reilly; EB II 312; 407-823-2204,
Fax 407-823-3413
Faculty: Armacost, Chandra, Elshennawy, Hoekstra, Hosni, Kotnour, Kulonda, Lee, Malone, McCauley-Bell, Mollaghasemi, Mullens, Pet-Armacost, Proctor, Ragusa, Sepulveda, Stanney, Thompson, Whitehouse, Williams

Industrial Engineers make things work better. They design systems that translate a specific product design into a physical reality in the most productive manner and with highest possible quality. In doing so, the industrial engineer deals with decisions regarding the right mix and type of people, materials, machines, and automation (including robotics). Industrial engineers are also skilled in

Engineering Economic Analysis and Information Management since they are generally considered to be the natural interface between the technical specialist and management.

Industrial Engineers are generally sought in industry, service, and government organizations. In the industrial sector, the industrial engineer is concerned with improving productivity and quality of the manufacturing, distribution, and management system of organizations. In the service sector, the industrial engineer is concerned with determining the most productive manner in which to deliver high-quality service to the customer. In government
organizations the industrial engineer is active in assuring that tax payers receive maximum service for their tax dollars.

The Industrial Engineering approach is characterized by a systematic evaluation of alternatives using quantitative analysis, and computer simulations. As such, quantification and measurement play a key role in the day to day activities of the industrial engineer.

Elementary engineering design experiences are incorporated into many of the required industrial engineering core courses. For instance, students learn how to apply the principles of engineering design to production systems and cost estimation in EIN 3354, to work methods and process flows in EIN 3314, and to facilities design and plant layout in EIN 4364. The design experience concludes with a real-world system design in the two-semester capstone design sequence, EIN 4116 and EIN 4891.

## Mission

To produce industrial engineering professionals and leaders who, working alongside their coworkers, can design and improve operations in industry, business, and government, making them more productive, more responsive, and producing goods and services of higher value to the customer for the global economy of the 21 st century.

## Objectives

1. BSIE graduates will demonstrate knowledge of math, science, and engineering fundamentals.

Specifically, the student will have the ability to:
Demonstrate general design principles.
Use fundamental engineering techniques, skills, and tools for engineering practice.
Analyze and interpret data to produce meaningful conclusions and recommendations.
2. BSIE graduates will demonstrate competence in the professional practice of industrial engineering, effectively using both technical and qualitative skills. Specifically, the student will have the ability to:

Design systems, components, and processes to meet desired needs.
Identify, formulate, and solve industrial engineering problems.
Use industrial engineering techniques, skills, and tools for engineering practice.
Be a productive member of multi-disciplinary teams.
Communicate effectively in both written and spoken presentations.
Incorporate contemporary issues into the practice of industrial engineering, including global communication.

Have the knowledge to become a Professional Engineer (PE) in the IE discipline.
3. BSIE graduates will understand the leadership responsibilities of a practicing engineer. Specifically, the graduate will understand the need to:

Make decisions in light of professional and ethical responsibilities.
Understand the impact of engineering solutions in a global and societal context.
Understand contemporary issues into the practice of industrial engineering.
Engage in life-long learning.
4. BSIE graduates seeking professional employment or admission to graduate education programs will be successful in doing so within six months of graduation.
5. IEMS students will receive relevant curriculum content in a learning environment that facilitates learning and retention.

The mission statement and objectives for the Industrial Engineering programs are electronically posted and continuously updated. More information on the Industrial Engineering program can be found on the Industrial Engineering Department home page at http://ie.engr.ucf.edu/.

## Department of Mechanical, Materials, and Aerospace Engineering

Interim Chair: David W. Nicholson; EN 307; 407-823-2416,
Fax 407-823-0208
Faculty: An, Bishop, R. Chen, Q. Chen, Chew, Chow, Conway, Desai, Durrance, Enikov, Eno, Giannuzzi, Hagedoorn, Hosler, R. Johnson, Kapat, Kar, Kassab, K. Lin, McBrayer, Minardi, Moslehy, Nayfeh, Nicholson, Nuckolls, Seal, W. Smith, Sohn, Suryanarayana, Ventre, Zhou

The Department of Mechanical, Materials, and Aerospace Engineering offers undergraduate degree programs in Mechanical Engineering and Aerospace Engineering. The Aerospace Engineering
program is designed to provide a broadly-based foundation in aeronautics and astronautics, including topics such as aerodynamics, propulsion, aerospace structures and materials, flight dynamics, and control and performance.

The Mechanical Engineering program is designed to provide a broadly-based foundation in thermo-fluids, mechanical systems and materials, including topics such as solid mechanics, machine design, vibrations, CAD/CAM/FEM, feedback control and mechatronics, fluid mechanics, heat transfer, and structure and properties of materials.

Both programs seek to convey an understanding of the fundamental principles of science and engineering, to stimulate curiosity and creativity, to provide hands-on experience in laboratories, and to prepare students to design systems which solve current and relevant societal problems. The design experience begins in the freshman engineering courses and grows throughout the curricula with increased emphasis on student creativity, open-ended problems, materials selection, design methodology, feasibility considerations, alternative solutions, and concurrent design, and culminates in the senior capstone design courses. The use of computers and written and oral communication are part of the design experiences throughout the programs.

## Mission

In support of the University and College missions, the Aerospace Engineering program at UCF is committed to provide the highest quality aerospace engineering professionals and leaders. Through cooperative efforts with regional aerospace industry and the Florida Space Institute, our graduates will be well prepared for their role as aerospace engineers in society and will have an awareness of ethical, environmental, economic, safety, and quality issues. They will be educated to be life-long learners, pursuing their personal and professional development. Through these characteristics our graduates will be able to rise to positions of prominence in the technical society of tomorrow.

## Educational Goals

1. To provide students with a comprehensive education in Aerospace Engineering with the opportunity to emphasize either Aeronautics or Astronautics.
2. To provide students with an ability to identify, analyze, and solve problems appropriate to Aerospace Engineering.
3. To provide students with a command of the design discipline/process.
4. To provide students with comprehensive computer skills appropriate in Aerospace Engineering.
5. To provide students with knowledge of contemporary issues in Aerospace Engineering and to
prepare them for life long learning.
6. To provide students with an understanding of ethical, social, and professional responsibilities.
7. To prepare students to be proficient in technical communication both orally and in writing

## Mission

In support of the University and College missions, the Mechanical Engineering program at UCF is committed to provide the highest quality engineering professionals and leaders. Through cooperative efforts with regional industry, our graduates will be well prepared for their role as mechanical engineers in society and will have an awareness of ethical, environmental, economic, safety, and quality issues. They will be educated to be life-long learners, pursuing their personal and professional development. Through these characteristics our graduates will be able to rise to positions of prominence in the technical society of tomorrow.

## Educational Goals

1. To provide students with a comprehensive education that includes in-depth instruction in solid mechanics, materials, thermo-dynamics, fluid mechanics, heat transfer, vibrations, systems modeling, controls, and design of mechanical systems.
2. To provide students with the comprehensive computer skills necessary for problem solving, including CAD/CAM/FEM, and for effective technical presentation and communication.
3. To prepare students for careers in mechanical engineering by emphasizing analysis and problem solving; hands-on laboratory experiences; exposure to open-ended problems and design issues including manufacturing, maintenance, and fostering teamwork; communications skills; and individual professionalism.
4. To provide each student the opportunity to emphasize one of the sub-disciplines of mechanical systems, energy systems, or materials.
5. To provide adequate research and independent study opportunities that cultivate lifelong learning skills and nourish creative talents.
6. To provide opportunities for participation in student professional engineering societies and participation in regional, national, and international student competitions.
7. To provide opportunities for part-time professional experience prior to graduation through co-operative education, work-study programs, etc.
8. To prepare students for careers in research and development by providing opportunities for admission to graduate programs leading to Master's and doctorate degrees.

## Department of Engineering Technology

# (The Engineering Technology Department (ENT) is located in the Engineering Building, Room 207.) 

Chair: R. Eaglin; ENGR 207; 407-823-2156, Fax 407-823-5483
Assistant Chair: A. Rahrooh; BLLC 277; 407-631-5366
(Brevard Campus)
Assistant Chair: R. Coowar; ENGR 207; 407-823-2156
Faculty: Coowar, Denning, Misconi, Morse, Motlagh, Osborne, Rahrooh, Rogers

## Mission

The mission of the Engineering Technology program is to educate students to become professional technologists who meet the current needs of industry.

## Objectives

1. Provide excellent curriculum content (e.g. math, science, and engineering technology principles, discipline-related topics and skills, and competencies in communication, problem solving, teamwork) to prepare students for professional practice in engineering technology.
2. Provide an educational program so graduates are successful in attaining professional employment.
3. Provide an excellent learning environment so the graduates are competitive with other BS Engineering Technology graduates from other U.S. institutions.
4. Provide educational content so graduates understand and value professional ethics, integrity, and diversity.

The mission statement and objectives for Engineering Technology are electronically posted and continuously updated. More information on the Engineering Technology programs can be found on the ENT Department home page at http://www-ent.engr.ucf.edu.

## Bachelor of Science in Electrical Engineering Technology (BSEET)

Coordinator: Alireza Rahrooh

This program in electrical engineering technology, leading to the BSEET degree, provides a structured curriculum with instruction in fundamentals and engineering principles applicable toward working with both present and future technologies in a variety of work environments. Graduates may find employment opportunities in such diverse fields as aerospace, instrumentation, computers, communications, consumer products, banking and education. They may become involved in applied design, product development, manufacturing, quality assurance, production and operations as well as
activities such as field engineering, sales, system analysis, technical writing and software design, preparation and programming.

The EET program provides two paths of concentration, there-by providing the student a choice between either a hardware or a software emphasis. The concentration in Electrical systems provides a broad based curriculum in electrical/electronic engineering principles, and their application. Instruction and problem solving experiences are provided in both circuit and system aspects including computers, communications, controls and electrical power. The concentration in Computer Systems, while providing a firm foundation in electrical/electronics technology, also includes extensive instruction in programming, system design and analysis, and systems programming. Projects in solving real-world problems are required of all students in this concentration.

## Bachelor of Science in Engineering Technology (BSET)

## Coordinator: Lucy Morse

The BSET curriculum consists of a carefully integrated program that includes professional studies, general education, and applied mathematics and sciences. Through the selection of the upper level technical concentration students can build and tailor their program, based on previous knowledge to assist them to launch a career that best meets their needs and aspirations. The Design concentration provides advanced course work in preparation for employment at the baccalaureate level in the fields of manufacturing, testing and fabrication of mechanical parts, and the building and construction industries. Graduates may become involved in applied design, product development, manufacturing or production, to name but a few. The Operations concentration provides an orientation for professional careers in technical management and operations in the manufacturing, sales, services, and construction industries. Graduates may become involved in many diverse areas including product development, manufacturing, quality assurance and logistics, sales, field engineering, technical writing and safety. Projects in solving real-world problems, are required of all students in the BSET program. In addition to the engineering technology core, both concentrations in the BSET program have a common lower division core as well as a common upper division core.

## Bachelor of Science in Information Systems Technology (BS)

Coordinator: Bahman Motlagh

The Engineering Technology Department also offers the Bachelor of Science degree in Information Systems Technology (BS), designed to accept Associate of Science (AS) degree graduates from community college programs in Computer Programming Technology, Digital Communications, and Networking. The IST curriculum provides the AS graduate with additional course work in networking and computer systems. It also provides skills and knowledge related to project management,
economic analysis, quality assurance, reliability, and logistics. A characteristic of this curriculum is that it contains less mathematics and natural science than do the BSET and BSEET curricula.

## Reserve Officer Training Corps

## Air Force ROTC (Aerospace Studies)

Chair: Lt Col Judge; Trailer 501, Room 103; 407-823-1247,
Fax 407-823-2265, DSN 960-8647
Faculty/Staff: Captain Liquori, Captain Colley, 1Lt Crawls, MSgt Hernandez, TSgt Garcia, and Mrs. Fioramanti, Office Manager

The Department of Aerospace Studies provides pre-commissioning education for qualified students who desire to serve as commissioned officers in the active duty Air Force. The department offers four-year, three-year, and two-year Air Force ROTC programs. The four/three-year program provides on-campus study during the freshman through senior years. The two year programs allow community college transfer students and other students with two academic years remaining in either undergraduate or graduate status to earn an Air Force commission while completing their studies. All programs offer scholarship opportunities to selected students. Students are invited to write or visit the Department of Aerospace Studies to obtain additional information. The Air Force retains sole discretion whether or not any applicant is qualified for pre-commissioning education through the Air Force ROTC. More information on the Aerospace Studies program can also be found on the AFROTC home page at http://pegasus.cc.ucf.edu/~airfrotc/.

## Curriculum

Students enrolled in the Air Force ROTC program may major in any academic discipline and earn a minor in Aerospace Studies. A major is not offered by this department. AFROTC courses are listed under the prefix AFR. The curriculum is divided into two phases:

## 1. General Military Course (GMC)

The General Military Course is designed to give students their first exposure to the Reserve Officer Training Corps program during their freshman and sophomore years. The courses deal with the mission, organization, and structure of the US Air Force, and the development of air power into a prime element of American national security.
2. Professional Officer Course (POC)

The Professional Officer Course is designed to develop and hone managerial and officer skills during
a student's junior and senior years. All students who seek a commission through the Air Force ROTC must complete the POC curriculum. The curriculum involves the study of concepts of leadership and management in the Air Force and an analysis of the formulation and implementation of American defense policy.

Leadership Laboratory
Leadership Laboratory is a required lab that must be taken in conjunction with the academic class. Leadership Laboratory is only open to students who are members of the Reserve Officer Training Corps or are eligible to pursue a commission as determined by the Professor of Aerospace Studies.

## Requirements for entry into the Professional Officer Course

Be at least 17 years of age at the time of acceptance
Be able to complete the Professional Officer Course and complete all degree requirements prior to reaching age 29 if entering Flight Training, or before age 30 (can be waived to age 35) if entering a non-flying Air Force specialty

Pass the Air Force Officer Qualifying Test
Pass an Air Force medical examination
Pass the Air Force Physical Fitness Test each semester
Selection by the Professor of Aerospace Studies and acceptance by the University
Successful completion of a summer Field Training course (either four or five week)
Enlistment in the Air Force Reserve certifying agreement to complete the POC and accept an Air Force Commission. This enlistment is terminated upon receipt of a commission

## Monetary Allowance

All students enrolled in the Professional Officer Course receive a tax-free monetary allowance of \$200 per month.

## Air Force ROTC Scholarship Program

Scholarships are phased at four, three, and two-year opportunities. This system provides opportunities to those students enrolled in certain academic majors. These scholarships provide for full tuition and fees, and an allowance for textbooks. Scholarship recipients also receive the $\$ 200$ monthly tax-free monetary allowance. A POC Incentive scholarship is available to eligible cadets enrolled in the last two years of our program regardless of major as long as they graduate prior to becoming 27 years old and maintain a minimum term GPA of 2.00 or greater. The POC incentive pays $\$ 1,500$ a semester for tuition and fees and $\$ 250$ per semester for books.

## Summer Training

All students must attend a summer Field Training course conducted at Lackland Air Force Base in San

Antonio, TX or Tyndall Air Force Base in Panama City, FL. This course includes junior officer training, officer career orientation, and physical conditioning. Students enrolled in the four-year AFROTC program will attend a four-week summer course, normally upon completion of the General Military Course. A five-week summer course, which includes a modified version of the General Military Course, is required for students entering the two-year AFROTC program. These students must complete their summer training prior to their formal enrollment in the Professional Officer Corps curriculum. These students need to contact the department early in the Fall prior to the Summer Field Training.

## Officer Commissions

Students who complete the Professional Officer Course are appointed Second Lieutenants in the United States Air Force. After completing the training program and entering active duty with a reserve commission, they will serve a minimum active duty tour which varies in length depending on their particular career area (typically four years). Such obligations are explained in detail during the one-on-one counseling sessions conducted with each prospect by detachment officers.

## Army ROTC (Military Science)

Chair: LTC John J. Ruzich; Trailer 501, Room 110
Faculty/Staff: MAJ Coddington, MAJ Murphy, CPT Newby, MSG Davidson, SFC Gibb, SSG Barajas, SGT Pina, Ms. Martin, Office Manager;, 407-823-2430, Fax 407-823-5324

The University of Central Florida, in cooperation with the US Army, provides an opportunity to earn a commission as a Second Lieutenant and compete for an active duty assignment or accept a guaranteed Army Reserve or National Guard position. The program offers both a four-year and two-year option for students working on their Associate of Arts, Baccalaureate or Graduate degrees. The two-year option allows students with at least two academic years remaining in either undergraduate or graduate studies to meet all requirements for commissioning. Students may be eligible for the Army's Simultaneous Membership Program (SMP) which combines Reserve Forces Duty with Army ROTC officer training courses on campus. Students earn about $\$ 4000.00$ in their last two years. Note: The Army retains sole discretion - in accordance with public law and military regulation - regarding whether or not any applicant is qualified for pre-commissioning education through Army ROTC. More information on the AROTC program can be found on the AROTC Department home page: http://www.army.ucf.edu/.

## Curriculum

The Military Science on-campus curriculum is divided into two phases: Basic Military Science Course and Advanced Military Science Course.

## 1. Basic Military Science

A. The Basic Military Science courses, open to both men and women, are designed for four-year participants and are normally offered during the freshman and sophomore years. These courses address military organizations, equipment, weapons, map reading, land navigation, management skills, grade structure, communications and leadership. There are non-contractual obligations or commitments for students in the Basic course phase. The Basic Course phase offers students the opportunity to see what Army ROTC is all about (MIS 1031, 1400, 2120, 2300). Students will also participate in a Field Training Exercise (FTX). These courses fulfill pre-requisite requirements for entering the Advanced Military Science phase.

## B. Requisites for admission to the Basic Course:

Enrollment in a Baccalaureate or Master's degree program
Full-time student status

## 2. Advanced Military Science

A. The Advanced Military Science courses, open to both men and women, are taken during the junior and senior years. These courses specialize in small unit tactics, how to prepare and conduct military training, military justice system, staff procedures, decision making and leadership. Students who desire a commission as a Second Lieutenant are contracted and paid a tax-free subsistence of $\$ 200.00$ per month up to 10 months during the school year. Each student is required to take courses that meet the Army's Professional Military Education Requirements. Students must meet pre-requisite requirements prior to participating in the Advanced program. They must also successfully complete a 32-day Advanced Leadership Camp at Fort Lewis, WA, normally between their junior and senior years.
B. Requisites for Admission to the Advanced Course:

Successful completion of Basic Course, Basic Camp, JROTC, prior military service or permission of the Department Chair

Must be at least 17 years of age at the time of entry, but not more that 30 years of age at the time of commissioning (30-year age regulation may be waived for veterans up to age 34)

Successful completion of an Army physical examination
Agreement to complete the Advanced Course requirements and serve on either Active, Reserve, or National Guard duty as a commissioned officer

Full-time undergraduate student status (minimum of 12 hours); full-time graduate student status (minimum six hours)

US Citizen

## 3. Monetary Allowance

All contracted and scholarship students enrolled in the Advanced Military Science Course receive a
tax-free monetary allowance of $\$ 200.00$ per month during the school year.

## 4. Scholarships

Four, three and two-year scholarships are available for all students who qualify. These scholarships provide full tuition, books and fees for Fall and Spring semesters. In addition, all contracted scholarship students also receive the $\$ 200.00$ monetary allowance per month during the school year. Contact the Enrollment Officer for additional information at 407-823-5383.

## 5. Placement Credit

Placement credit is offered to all students with prior service. Prior service experience waives the required Basic Courses. Prior service is extended to include Active duty, Reserve Forces and National Guard. Although prior service does waive the Basic Courses, if a prior service student desires, he/she may elect to enroll in the Basic Courses.

## 6. Daytona Beach Campus Students

These students should contact the Professor of Military Science at Embry-Riddle Aeronautical University, Daytona Beach, Florida, (904) 239-6469. Students will participate in a Field Training Exercise (FTX) and will commission, if qualified, with Embry-Riddle.

## SUMMER TRAINING COURSES

## 1. Basic Course Summer Training

A student can earn placement credit for the Basic Course classes and allowed entry into the Advanced Course by attending a six-week course at Fort Knox, Kentucky, thereby allowing completion of all requirements for commissioning within two years. Students attending the summer course receive approximately $\$ 700.00$ pay. Additionally, all lodging, meals and transportation are furnished. Uniforms will be provided at no expense.

## 2. Specialized Summer Training Courses

Qualified students can be selected to attend specialized military training occurring the summer months. These areas of training include: a) Airborne Training; b) Air Assault Training; c) Northern Warfare Training; d) Cadet Troop Leadership Training: e) Master Fitness Training; and f) Mountain Training.

For additional information on any aspect of the above programs call 407-823-2430 or 5383.
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College Of Health and Public Affairs

Dean: Belinda R. McCarthy; HPA 365; 407-823-0171
Interim Associate Dean: Robert Gennaro; HPA 365;
407-823-0171
Associate Dean: Joyce Dorner; HPA 365; 407-823-0171
Assistant Dean: Eileen Abel; HPA 365; 407-823-0171
Assistant Dean: Melvin Rogers; HPA 365; 407-823-0171
http://www.cohpa.ucf.edu

The College of Health and Public Affairs is composed of two schools and five departments. The two schools are Nursing and Social Work. The health related disciplines include: Communicative Disorders, Health Professions, and Molecular Biology and Microbiology. The Criminal Justice/Legal Studies and Public Administration programs comprise the public affairs unit of the college.

The college is responsible for educating professionals in health, human and public service. As an integral part of the Central Florida community, the college mission is the advancement of knowledge, education, public policy and professional practice in health and public affairs. The college offers 14 baccalaureate, nine graduate programs, seven minors and 11 graduate and two undergraduate certificate programs.

## General Requirements for the Bachelors Degree

Some Schools, Departments or Programs in the College are upper division, limited access programs. Acceptance by or registration at the University does not constitute admission to the following: Schools of Nursing and Social Work, and the Programs in Cardiopulmonary Sciences, Medical Laboratory Sciences, Health Information Management, and Radiologic Sciences.

Application must be made to the appropriate program in health sciences. For Social Work, contact the School of Social Work. Additional information regarding prerequisites and grade point averages may

The following Departments and Programs do not have limited access: Departments of Communicative Disorders, Criminal Justice/Legal Studies, Molecular Biology/Microbiology, and Public Administration; and the Program in Health Service

Administration.

## Advisement

## Office of Student Support

Director: Judith A. Sindlinger; HPA II 115; 407-823-0010;

## E-mail: hpainfo@pegasus.cc.ucf.edu

The College of Health and Public Affairs Office of Student Support assists students in understanding matters relating to college and university requirements and procedures as well as coordinating orientation, registration and graduation certification. Students interested in pursuing limited access programs are encouraged to meet with advisors in the college to stay on track by taking the appropriate prerequisite requirements. Advisors are available through our Outreach Program for students on probation or for those who are having academic difficulty. Questions concerning university and college academic policies should be directed through this office. Faculty advisors are assigned to students upon admission to their degree program in their academic department.
Pre-health Professions Advisement for students interested in pursuing professional degrees is handled in the Pre-Health Professions Advisement Office located in HPA 124, 407-823-2670.

## Foreign Language Requirements

Cardiopulmonary Sciences
B.S. - high school only

Communicative Disorders
B.A. - 2 semesters/ proficiency
B.S. - 2 semesters/health
sciences
Criminal Justice
B.S. - high school only

Health Information Management
B.S. - high school only

Health Sciences
B.S. - high school only

| Health Services Administration | B.S. - high school only |
| :---: | :---: |
| Legal Studies proficiency | B.A. - 2 semesters/ |
| B.S. -6 hours approved courses |  |
| Medical Laboratory Sciences | B.S. - high school only |
| Molecular Biology and Microbiology | B.S. - high school only |
| Nursing | B.S.N. - high school only |
| M.S.N. - high school only |  |
| Public Administration proficiency | B.A. - 2 semesters/ |
| B.A. - 6 hours approved courses |  |
| Radiologic Sciences | B.S. - high school only |
| Social Work proficiency or 2 cultural diversity courses | B.S.W. - 2 semesters/ |

## Programs and Degrees

| Major | Degree |
| :--- | :--- |
| Cardiopulmonary Sciences | BS |
| Communicative Disorders | BA, BS, MA |
| Criminal Justice | BA, BS, MS |
| Health Information Management | BS |
| Health Sciences-Athletic Training | BS |
| Health Sciences - Generalist | BS |
| Health Services Administration | BS, MS |

Legal Studies ..... BA, BS
Medical Laboratory Sciences ..... BS
Molecular Biology and Microbiology ..... BS, MS
Nursing ..... BSN, MSN
Public Administration ..... BA, BS, MPA
Physical Therapy ..... MS
Radiologic Sciences ..... BS
Social Work ..... BSW, MSW
Departments and Programs

## Department of Communicative Disorders

Chair: R. J. Lieberman; HPA II 102; 407-249-4798
Academic Advisor: D. Wolf
Clinic Director: G. Dreilinger; Research Pavilion Suite 155;
407-249-4770
Faculty: Brice, Dutka, Fowler, Ingram, Kissel, Lieberman, Louko, Mullin, Nye, Ratusnik, Rivers, Rosa-Lugo, Ryalls, Schwartz, Utt, Vanryckeghem

The discipline of communication sciences and disorders involves the prevention, evaluation, management, and study of human communication and its disorders. The undergraduate program in the Department of Communicative Disorders is pre-professional in nature and reflects the scientific foundations of the discipline. The three primary goals of the undergraduate program are to provide students with the necessary preparation 1) to pursue graduate study in speech-language pathology, audiology, or related fields such as special education, social work, and health services administration; 2) to seek careers in health and human services; and 3) to obtain licensure and employment as a speech-language pathology or audiology assistant.

The graduate program prepares speech-language pathologists for work with children and adults experiencing a variety of communication disorders in schools, hospitals, rehabilitation centers,
community speech, language and hearing centers, and physician's offices. The graduate program has been accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association since 1986. Students should plan their major or minor in consultation with a departmental advisor to meet their individual interests and career objectives.

In addition to course work in communicative disorders, the Department offers a three-course sequence in American Sign Language open to the entire university community: SPA 4612, SPA 4613, and SPA 4614.

Degrees: Communicative Disorders (BA, BS, MA)
Tracks: None
Minors: Communicative Disorders

## Department of Criminal Justice and Legal Studies

Chair: B.J. McCarthy; HPA 311; 407-823-2603
Faculty: Applegate, Bast, Becker, Bohm, Cherry, Cook, Eastep, Fabianic, Flagg, Ford, Griset, Hall, Holmes, Lanier, Lucken, Mahan, B.J. McCarthy, B.R. McCarthy, Pyle, Randall, Remis, Reynolds, Sanborn, Slaughter, Sudia, Surette, Watkins, Wolf

The Department of Criminal Justice and Legal Studies includes two undergraduate degree programs: Legal Studies and Criminal Justice.

## Criminal Justice Program

Criminal Justice is a problem based field of study which focuses on the nature of crime and crime control agencies in a democratic society. The curriculum reflects the dynamic nature of the field and prepares students for challenging careers in public service.

## Legal Studies Program

The Legal Studies Program provides students with a broad understanding of basic principles of law and the role and function of the legal system. The legal studies program, in addition to preparing students for law-related careers, provides a foundation for law school or other graduate education. All of the full time Legal Studies faculty are attorneys and are available for law school advising. Satisfactory completion of program requirements leads to the degree of Bachelor of Arts or Bachelor of Science with a major in Legal Studies.

Degrees: Criminal Justice (BS, MS), Legal Studies (BA, BS)

Tracks: None
Minors: Criminal Justice, Legal Studies

## Department of Health Professions

## Chair: Aaron Liberman; HPA II 210; 407-823-3264

Faculty: Acierno, Barr, Bertetta, Cassidy, Chase, Douglass, Edwards, Enchelmayer, Falen, Fottler, Gosnell, Hamby, Holder, Hudson, Liberman, Ludy, Lytle, Mendenhall, Morrison, Oetjen, Parry, Rotarius, Strack, Trujillo, Unruh, Viamontes, Welker, Worrell

The Department of Health Professions offers baccalaureate programs which prepare students for professions in the fields of Cardiopulmonary Sciences (Respiratory Therapy), Health Information Management, Health Sciences (Athletic Training), Health Services Administration, and Radiologic Sciences. The Department also offers a generalist degree for the undecided pre-professional major and for graduates of diploma programs seeking professional validation.

The mission of the Department is to provide quality undergraduate and graduate academic, administrative, and clinical instruction with an accent on educating future leaders of the health care system. The Department seeks first to strengthen existing programs, as well as to identify and develop new programs that fulfill a documented need for health care resources and technology. Another goal is to foster the development of knowledge through research, publications, scientific presentations, and grantsmanship. Finally, the Department seeks to provide continuing education for the health care community and consumer health education.

The programs in Cardiopulmonary Sciences, Health Information Management and Radiologic Sciences require a minimum overall GPA of 2.5 for admission and the Athletic Training program requires a minimum overall and prerequisite GPA of 3.0. In addition, a minimum grade of "C" (2.0) is required for prerequi-site courses and required courses within the program. No CLEP, TSD, or AP credit may be used for prerequisite course credit.

The primary goal of the program in Health Services Administration is to prepare managers to direct a variety of health care organizations such as hospitals, HMO's, clinics and any other organization involved in the delivery or management of health care services. The undergraduate curriculum is consistent with the curricular requirements of the Association of University Programs of Health Administration, stressing administration, policy and planning skills. A diverse health care community offers students a variety of internship experiences as well as providing placement opportunities upon graduation. Faculty are actively engaged in research relating to management, conflict resolution, occupational stress, outcome assessment and integrated delivery mechanisms.

## Program in Cardiopulmonary Sciences

## Director: L.T. Worrell; HPA II 210; 407-823-2214

The major in Cardiopulmonary Sciences (which includes the Respiratory Care Program) leads to the Bachelor of Science Degree. In the professional curriculum, students study advanced courses in respiratory therapy, pharmacology, life support systems, disease assessment, clinical practice, diagnostics, and patient management. Upon completion of the undergraduate program, the baccalaureate individual will possess basic and advanced level skills and should be prepared to assume future leadership roles within the profession. Graduates will be prepared to become Registered Respiratory Therapists through licensure by the State of Florida.

The Cardiopulmonary Sciences program is accredited by the Committee on Accreditation for Respiratory Care in conjunction with CAAHEP of the American Medical Association. This is a limited access program and requires a separate application to the program by February 1 of the year in which admission is sought.

Degrees: Cardiopulmonary Sciences (BS)
Tracks: None
Minors: None

## Program in Health Information Management

Director: C. Barr; HPA II 210; 407-823-2353

Health Information Managers are professional members of the modern health care team responsible for: 1) the acquisition and supervision of complete medical records on each patient, 2) the design and management of health information systems which collect, process, store, retrieve, and release health information and statistics, 3) assistance to administration, other health professionals, and medical staff in developing quality assurance programs by abstraction of medical data, preparation of statistical reports, and analysis of information, and 4) assistance in collection and analysis of data for public health services planning.

The curriculum of the Health Information Management program is approved by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with the Council on Accreditation of the American Health Information Management Association. This is a limited access program and requires a separate application to the program by March 1 of the year in which admission is sought.

Degrees: Health Information Management (BS)

## Tracks: None

Minors: None

## Program in Health Sciences-Athletic Training

Director: V. Hudson; HPA II 210; 407-823-6761

The Program in athletic training at the University of Central Florida is a track in the Department of Health Professions in the College of Health and Public Affairs. The athletic training track is a five semester program where students complete 12-15 credits per semester while engaged in clinical affiliations. The core of athletic training coursework will emphasize skills and competencies necessary for successful clinical practice in a variety of settings in which athletic trainers are presently employed. A significant and important aspect of the educational process will be clinical experiences that will occur in a variety of settings under the direction of a certified athletic trainer. These local affiliation sites include high schools, colleges, universities, sports medicine clinics, and professional athletic organizations. The unique aspect of the athletic training curriculum is that upon successful completion of the course of study, it will provide the graduate with a bachelor of science degree in Health Sciences and the eligibility to take the National Athletic Trainer's Association Board of Certification (NATABOC) Certification Exam. By successfully passing the exam, the student will be recognized as a certified athletic trainer (A.T.C.).

Degrees: Health Sciences (BS)
Tracks: Athletic Training
Minors: None

## Program in Health Sciences-Generalist Track

Director: D. M. Oetjen; HPA II 210; 407-823-2359

This Program offers a baccalaureate degree in Health Sciences (Generalist Track). The BSHS Program provides an opportunity for credentialed health care professionals to expand the scope of their education through the completion of courses both within and outside of their discipline. The Program also enable students, without a health background who are considering a health services career, to complete courses in several disciplines in order to make informed career decisions. BSHS students are exposed to courses from the Athletic Training, Health Information Management, and Health Sciences Administration Programs.

## Degrees: <br> Health Sciences (BS)

Tracks: Generalist

## Program in Health Services Administration

Director: M. Fottler; HPA II 210; 407-823-2359

The Program offers a baccalaureate degree in Health Services Administration. The baccalaureate degree is designed for students who desire to study the business side of health care. People within the health care industry with associate of science degrees in areas such as nursing, respiratory therapy, radiologic technologies, medical laboratory technology, dental hygiene, and others may find this program providing a migration path from the clinical side of the health care industry to the leadership side. Students without a background in the health care industry can build a solid understanding of the complexity of managing health services organizations.

Degrees: Health Services Administration (BS, MS)
Tracks: None
Minors: Health Services Administration, Health Sciences

## Program in Radiologic Sciences

Director: T. J. Edwards III; HPA II 210; 407-823-2747

The University of Central Florida offers the only public accredited Bachelor of Science in Radiologic Sciences degree program in Florida. The Radiologic Sciences Program offers students the opportunity to specialize in Radiography. Radiographers are integral members of the health care team dedicated to providing high quality patient care. Graduates are prepared to function as clinically competent Radiographers and, with experience, advance to leadership positions in their profession.

The primary role of Radiographers is to perform medical imaging procedures for the diagnosis of disease and injury. The Radiographer enjoys an interesting and challenging variety of examinations/ procedures which may include conventional radiography, fluoroscopy, mammography, vascular imaging, computed tomography and magnetic resonance imaging. Employment opportunities are available in hospitals, imaging centers, and private physician offices. Career advancement opportunities include positions in advanced imaging modalities, administration, education, and quality management.

The Radiologic Sciences Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Graduates are eligible to apply for admission to the Radiography
certification exam administered by the American Registry of Radiologic Technologists (ARRT).

The program works in conjunction with Advanced Imaging Center of Winter Park, Arnold Palmer Hospital for Women and Children, Central Florida Regional Hospital, Health Central, Jewett Orthopedic Clinic, Orlando Regional Medical Center, Regional MRI, South Seminole Hospital, and Winter Park Memorial Hospital. This is a limited access program and requires a separate application to the program by March 1 of the year in which admission is sought.

Degrees: Radiologic Sciences (BS)
Tracks: None
Minors: None

## Department of Molecular Biology and Microbiology

Chair: R.N. Gennaro; HPA II 335; 407-823-5932
Faculty: Berringer, Bertetta, Blaney, Chai, D. Chakrabarti, R. Chakrbarti, Charba, Daniell, Fernandez-Valle, Gennaro, Hitchcock, Jacobs, Logiudice, Naser, Sweeney, White, Zervos

The Department of Molecular Biology and Microbiology offers curricular programs leading to a minor, a Bachelor of Science degree, and a Master of Science degree, each in Molecular Biology and Microbiology. The department also offers a Bachelor of Science degree in Medical Laboratory Sciences. The Molecular Biology and Microbiology program offers courses that fulfill admission requirements for all the four-year health professions and graduate programs in molecular biology and microbiology.

## Program in Molecular Biology and Microbiology

The Core Curriculum in the baccalaureate program, with its broad and thorough grounding in the physical, computational, and life sciences, provides a solid foundation in concepts and applications of modern biology to contemporary and future problems. The Restricted Electives component of the baccalaureate program allows each student to enhance his/her academic preparation in areas of morphological, clinical, analytical or investigative applications. Students are also encouraged to gain research experience and exposure to specialized topics not taught in formal courses through the mechanism of directed research and independent study contracts with selected faculty. This thorough, but flexible, program, provides an excellent preparation for industry, graduate education, and for the four-year health professions (chiropractic, medical, dental, optometric, podiatry, pharmacy, and veterinary medicine).

Degrees: Molecular Biology and Microbiology (BS, MS)
Tracks: None

## Program in Medical Laboratory Sciences

Director: D. Hitchcock; HPA II 335; 407-823-2968

Medical technologists are involved in medical diagnosis, treatment, surveillance, management, research, and education. They use highly sophisticated equipment such as electronic cell counters, automated analyzers, computers, and microscopes in the examination of body tissues and fluids.

The curriculum is designed to give students a thorough background in the physical and biological sciences; to develop the understanding, skills, and ability essential to assume leadership roles in management and education; to develop a high level of proficiency in the clinical laboratory; and to develop an awareness for continuing education needed for professional growth.

The last two years of sequential courses constitute the upper division portion of the Program. The size of the class to be selected in the Medical Laboratory Science Program is determined by the availability of space and equipment, requirements concerning class size set for by the Program Accrediting Agency, and available spaces in the clinical facilities.

This is a limited access program that requires a separate application to the program. Preference will be given to those who apply by March 1st but applications will be accepted until the class is filled.

Degrees: Medical Laboratory Sciences (BS)
Tracks: None
Minors: None

## School of Nursing

Director: E. Stullenbarger-Galford; HPA 220; 407-823-2744
Faculty: Brown, Browne-Krimsley, Brunell, Bushy, Byers, Covelli, Dennis, Dorner, Dow, Gichia, Gropper, Hennig, Holcomb, Kiehl, Kijek, Leli, Pelliccio, Peterson, Ramey, F. Smith, Sole, Stullenbarger-Galford, Wink

The nursing curriculum leads to the Bachelor of Science in Nursing degree, the basis of professional nursing practice. The BSN graduate is prepared to provide comprehensive care in a variety of acute, community, and rehabilitative settings. Program emphasis includes clinical nursing practice, health promotion and maintenance, and preparation for assuming leadership roles. The baccalaureate curriculum provides the foundation for graduate study in nursing.

Nurses licensed in Florida are eligible for admission into the RN to BSN Program at UCF. Applicants have to hold current RN license in Florida. Each applicant is reviewed individually and guided to prevent repetition of previous coursework. RNs may submit applications during any semester. Contact the School of Nursing for specifics on the RN-BSN program. This program is offered in Orlando, Leesburg, and on the Brevard and Daytona campuses. The RN-BSN course work is also offered via the internet.

The goal of the MSN program is to prepare advanced registered nurse practitioners and administrators to assume leadership positions in a variety of healthcare settings. Three majors are offered at this time: Family Nurse Practitioner, Adult Nurse Practitioner, and Nursing Leadership and Management. Minimum hours for the degree are 41-46 hours of graduate work depending on the major. Either a thesis or research utilization project is required. Student must be a licensed Registered Nurse in Florida. All programs are limited access and require a separate application to the School of Nursing.

Degrees: Nursing (BSN) (MSN)
Tracks: RN to BSN, Generic BSN, RN to MSN, MSN
Minors: None

## Department of Public Administration

Chair: T. Liou; HPA II 238; 407-823-2604
Faculty: Baughman, Berman, Colby, Feldheim, Gianakis, Jurie, Kiefer, Lawther, Liou, Rogers, Shapek, Wang

The Public Administration course of study is designed to provide students with a broad understanding of the roles and functions of administrative agencies in the American system of government as well as prepare them for professional careers in public service at the federal, state, regional, or local level. Satisfactory completion of program requirements leads to the degree of Bachelor of Arts or Bachelor of Science with a major in Public Administration. The baccalaureate program in Public Administration is offered on the Orlando and Brevard campuses.

Degrees: Public Administration (BA, BS, MPA)
Tracks: None
Minors: Public Administration
Certificates: Non-Profit Management
Graduate Certificates: Public Administration, Non-Profit Management, Urban and Regional Planning

## School of Social Work

Director: Mary Van Hook; HPA 204; 407-823-2114
Faculty: Abel, Brett, Davis, Dziegielewski, Green, Jacinto, Kazmerski, Kirven, Leon, Maiden, Massey, Sauer, Suh, Turnage

The School of Social Work offers a professional degree program that is nationally accredited by the Council on Social Work Education. Its primary focus is the preparation of students for entry-level professional social work practice within diverse human service organizations such as hospitals, schools, correctional settings, public welfare departments, child placement organizations, community centers, and counseling agencies. The Social Work program is a limited access program that requires separate application to the School of Social Work.

The School of Social Work also offers the Certificates of Gerontology and Children's Services. The gerontology certificate is an interdisciplinary program that helps prepare the students to meet the needs of the elderly citizens of Central Florida. The program may be of particular interest to students who are majoring in health sciences, psychology, social work, nursing or sociology. Other students, such as those majoring in business, physical education, or art education may also find the program valuable. The Certificate in Children's Services prepares social work students to respond to the special needs of children and families. The course work includes SOW 3342, Practice II; SOW 4654, Children's Services; SOW 5655, Child Abuse: Treatment and Prevention; and SOW 4510, Field Education (in a child welfare agency). This certificate is of special interest to students planning to work the field of child welfare or related areas.

If currently majoring in an area of certificate coursework, the student should work with their department to coordinate fieldwork. For social work majors, the School of Social Work will plan fieldwork to complete this program.

Degrees: $\quad$ Social Work (BSW, MSW)
Tracks: None
Minors: Gerontology

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## Rosen School of Hospitality Management

Interim Dean: A. Pizam; CL1 302; 407-823-2188
Interim Associate Dean: Stephan LeBruto; CL1 302;
407-823-5064
Faculty: Ashley, Breiter, Milman, Muller, Upchurch

The hospitality industry currently represents the second largest employer in the United States and is the major part of the rapidly growing services sector of the economy. Because of its unique location in the premier tourist destination in the world, the Rosen School of Hospitality Management is ideally situated to prepare students for managerial careers in the hospitality industry. Whether the student is interested in entering lodging, food service, travel and tourism, theme parks, vacation ownership resorts, or conventions and destination services management, the Orlando and Central Florida area offers extraordinary opportunities. It is the destination for over 42 million tourists each year, has over 400 hotels with 110,000 rooms, 4,000 restaurants, and 50 theme parks and attractions. The industry employs a half million people in the State of Florida and many are in the Central Florida area.

The educational mission of the school is to provide students with the knowledge, skills, and ability to identify opportunities and challenges in the hospitality industry, and to apply creative decision techniques in responding to those opportunities.

The degree is designed to prepare students for a broad range of managerial roles across the hospitality industry. It provides both academic preparation and "hands-on" experiences that students will need to enter and succeed in a hospitality management career. Students also have the opportunity to experience the work world in hospitality through cooperative education requirements and through extensive contact with leading hospitality managers in the Central Florida area.

The school also houses the Dick Pope Sr. Institute for Tourism Studies which was created and funded by the travel and tourism industry in Central Florida. The institute conducts research and gathers information that can help the entire Orlando area hospitality industry better understand and serve its many guests from around the world.

The Center for Multi-Unit Restaurant Management and the Darden Eminent Scholar Chair in Restaurant Management provides a unique focus in the curriculum on corporate restaurant management. Students have access through the Center to leading restaurant industry executives. This academic unit is an integral part of the Rosen School of Hospitality Management.

## Distinctive Benefits

- Access to the many hospitality organizations that serve one of the premier tourist destinations in the world.

Extensive ties with the top leadership of the Orlando area hospitality industry.
A large number of scholarships made available through the generous support of the industry.
A faculty committed to continuously improving their knowledge of the hospitality industry as well as their ability to teach that knowledge to their students.

- A required work experience that provides students with "hands-on" experiences in the hospitality industry.
- Outstanding opportunities for internships.
- A modern food production laboratory and teaching restaurant completely equipped to provide students with experience in food preparation.
- American Resort Development Association (ARDA) Professorship of Resort Development.
- Central Florida Hotel and Lodging Association (CFHLA) Professorship of Convention and Conference Management.

Degree: Hospitality Management (BS)
Minor: Hospitality Management
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Majors

- Accounting
- Actuarial Science Track in Statistics
- Advertising/Public Relations
- Aerospace Engineering
- Animation Track in Art
- Anthropology
- Art
- Art - Animation Track
- Art - History Track
- Art-Studio Track
- Art Education
- Biology
- Biology - Preprofessional Concentration
- Cardiopulmonary Sciences
- Chemistry
- Cinema Studies Track in Film
- Civil Engineering
- Civil Engineering - Construction Engineering Concentration
- Communicative Disorders
- Computer Engineering
- Computer Engineering - Software Engineering Concentration
- Computer Science
- Criminal Justice
- Digital Media
- Early Childhood Education
- Economics (BA)
- Economics (BSBA)
- Electrical Engineering
- Electrical Engineering - Microelectronics Concentration
- Electrical Engineering - Wireless Communication Concentration
- Electrical Engineering Technology - Computer Systems Concentration
- Electrical Engineering Technology - Electrical Systems Concentration
- Electrical Engineering Technology (BSEET) AS to BSEET Track
- Elementary Education
- Engineering Technology - Design Concentration
- Engineering Technology - Operations Concentration
- English - Creative Writing
- English - Literature
- English - Technical Writing
- English Language Arts Education
- Environmental Engineering
- Exceptional Student Education
- Film
- Film - Cinema Studies Track
- Finance
- Foreign Language Combination
- Foreign Language Education - French
- Foreign Language Education - Spanish
- Forensic Science - Analysis Track
- Forensic Science - Biochemistry Track
- French
- General Business
- General Business (B.S.B.A.) AS to BS Track
- Health Information Management
- Health Sciences - Athletic Training Track
- Health Sciences - Generalist Track
- Health Services Administration
- History
- History - $3+2$ Program (BA \& MA)
- Hospitality Management
- Hospitality Management (B.S.) A.S. to B.S. Track
- Humanities
- Industrial Engineering
- Information Systems Technology
- Information Technology
- International Business Tracks
- Interpersonal Communication
- Journalism
- Legal Studies
- Liberal Studies
- Liberal Studies - Computer Information Technology Track
- Liberal Studies - Liberal Arts Track
- Liberal Studies - $3+2$ Program (BA \& MA)
- Management
- Management Information Systems
- Marketing
- Mathematics - Applied Track
- Mathematics - Computational Track
- Mathematics - Engineering/Physics Track
- Mathematics - Pure Track
- Mathematics Education
- Mechanical Engineering
- Medical Laboratory Sciences
- Molecular Biology and Microbiology
- Motion Picture Technology (See Film)
- Music
- Music Education
- Music Performance
- Nursing
- Nursing - RN to BSN Track
- Nursing - RN to MSN Track
- Nursing (B.S.N.) AS to BSN Track
- Organizational Communication
- Philosophy
- Physical Education
- Physics
- Political Science
- Political Science - Prelaw Track
- Psychology (BA)
- Psychology (BS)
- Public Administration
- Radio - Television
- Radiologic Sciences
- Radiologic Sciences (B.S.) AS to BS Track
- Science Education - Biology
- Science Education - Chemistry
- Science Education - Physics
- Social Sciences
- Social Science Education
- Social Work
- Sociology
- Spanish
- Statistics
- Statistics - Actuarial Science Track
- Theatre (BA)
- Theatre (BFA)
- Theatre - Musical Theatre Track
- Vocational Education and Industry Training

ACCOUNTING (B.S.B.A.)

## College of Business Administration

BA 240, 407-823-2184
http://www.bus.ucf.edu

## Admission Requirements

- Completion of the University General Education program or an AA degree from a Florida Public Community College.
- See Common Program Prerequisites


## Degree Requirements

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 1105 College Algebra
Select CGS 2100C Computer Fund. for Bus
D. Social Foundations

Select ECO 2013 Principles of Economics I
or ECO 2023 Principles of Economics II
Select one: PSY 2013, SYG 2000, ANT 2000
E. Science Foundation
(min 36 hrs ) 9 hrs 9 hrs 3 hrs

3 hrs

3 hrs

3 hrs
6 hrs

## 2. Common Program Prerequisites

Must be completed with a "C" (2.0) or better
ACG 2021 Principles of Financial Accounting
ACG 2071 Principles of Managerial Accounting
ECO 2013 Principles of Macroeconomics
ECO 2023 Principles of Microeconomics
*ECO 3401 Quantitative Business Tools I
CGS 2100C Computer Fundamentals for Business

* At UCF, students who have completed MAC2233 and STA2023 will be waived from ECO3401. Students who have not completed both classes with a "C" (2.0) or better must take ECO3401.


## 3. Common Body of Knowledge

First Semester in the College of Business Administration:
GEB 3031 Cornerstone 6 hrs
First or subsequent semesters depending on major:
ECO 3411 Quantitative Business Tools II 3 hrs
FIN 3403 Business Finance 3 hrs
MAN 3025 Management of Organizations 3 hrs
ISM 3011 Essentials of Management 3 hrs
Information Systems
MAR 3023 Marketing 3 hrs
BUL 3320 Business Law I** 3 hrs
Last Semester:
GEB 4361 Business in the Internat'l Environment 3 hrs
MAN 4720 Strategic Management 3 hrs

## 4. Special College and/or Departmental Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Only grades of "C" (2.0) or higher transfer into the program and students must have a "C" (2.0) or better in each common program prerequisites class.
- A minimum grade of "C" (2.0) must be earned in each accounting, business law, and tax course completed. Principles of Financial Accounting and Principles of Managerial Accounting are included under this rule.
- Students are allowed a maximum of three course repetitions during their program of study leading to the bachelors degree, including repetitions of courses from which they have withdrawn. This requirement applies to upper division accounting, tax, and business law courses only.
- A transfer student to this program must take a minimum of 12 semester hours in accounting at UCF as approved by the Director of the School of Accounting
- All students must have credit for a course in each of the following areas:
- English communication arts including written composition
- Oral expression
- Behavioral science such as psychology, anthropology, and sociology
- Humanities
- Political environment of business and society such as political science, public administration, and ethics
- Students not in attendance at the first meeting of any College of Business course may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.
- Students must have at least a 2.0 GPA in the COB and the major.

Students must take 60 credit hours in courses outside the College of Business.

## 5. Core Requirements

ACG 3101 Intermediate Financial Accounting I 3 hrs
ACG 3111 Intermediate Financial Accounting II 3 hrs
ACG 3361 Cost Accounting I 3 hrs
ACG 3501 Fin Acg for Gov't and Nonprofit Org 3 hrs
ACG 4401 Accounting Systems I* 3 hrs
TAX 4001 Federal Income Tax I 3 hrs
ACG 4203 Advanced Accounting 3 hrs
ACG 4651 Auditing 3 hrs

* CGS 2100C is a prerequisite for Accounting Systems.
** Transferable only from senior academic institutions.


## 6. Foreign Language Requirements

## (0-8 hrs)

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 7. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
30 semester hours of course work completed in residency (last 30 hours) at UCF
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Military credit permitted

- Completion of the General Education Program, the Gordon Rule, the CLAST, and 9 semester hours of Summer credit (if applicable)


## 8. Electives

(variable)
***Total Semester Hours Required

## 120 hours

## CPA Examination Requirements

Effective August 31, 1983, Florida Law states that to qualify to sit for the CPA exam, one must possess thirty (30) additional semester hours of credit beyond the minimum requirements for the baccalaureate degree. In addition to this overall educational requirement, the following specific criteria also apply:

- 36 hours in accounting beyond elementary, including coverage of financial accounting, auditing, cost and managerial accounting, and taxation.

39 hours in general business, including at least 6 hours of business law.

Because of these increased educational requirements, no experience or additional course work is needed for certification. To satisfy the necessary coursework required by the law, the School of Accounting offers the Master of Science in Accounting (MSA) and the Master of Science in Taxation (MST) degree programs. Please see the Graduate Catalog for program requirements. For additional information about the department, curriculum, faculty, events, and careers in accounting, students are invited to visit our department home page at: http://www.bus.ucf.edu/acc/.

## Community/Junior College Transfer Notes

Common Program Prerequisites for the State University System for College of Business Administration programs include Financial Accounting, Managerial Accounting, Macroeconomics, Micro-economics, Calculus, Statistics, and a relevant computer class. At UCF Business, students who have completed the calculus and statistics class will be waived from Business Quantitative Tools I. Students who have completed either the calculus or the statistics, but not both, must take Quantitative Tools I.

- Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in the UCF Business program. Only grades of "C" (2.0) or higher transfer into the program and students must have a " C " (2.0) or better in each common program prerequisites class.

ACG X001 and X011 will substitute for ACG 2021 at UCF
Florida Public Community College students are advised to complete the Associate of Arts degree, to include the general education requirements, the common program prerequisites for the SUS system, and college algebra.

- Professional courses should not be taken at a community/junior college in the areas of Management, Marketing, Real Estate, or Finance. These professional areas are third and fourth year (junior, senior) course areas and cannot be satisfied with freshman, sophomore level courses.
- A minimum of 12 semester hours in Accounting must be completed at UCF.

Orientation and advising are two of the most valuable tools that a student can make use of when transferring to UCF. Be sure that you take advantage of both.

## FOUR YEAR PLAN OF STUDY - ACCOUNTING

## Freshman

Fall
15 hrs
Spring
15 hrs
ENC 1101* 3 ENC 1102* 3
Cult-Hist I* 3 Cult-Hist II* 3
MAC 1105* 3 Art/Music/Lit 3
Psy/Soc/Ant 3 CGS 2100C* 3

Science 3 Science 3
Must complete 9 hours in a Summer term

## Sophomore

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | ---: | :--- | ---: |
| ECO 2013* | 3 | ECO 2023* | 3 |
| ACG 2021* | 3 | ACG 2071* | 3 |
| SPC 1600C | 3 | POS 2041 | 3 |
| ***Elective | 3 | $* * *$ Elective | 3 |
| $* * *$ Elective | 3 | ECO 3401* | 3 |

* " $C$ " (2.0) or better grade required in each class

Junior

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | ---: | :--- | ---: |
| GEB 3031 | 6 | ECO 3411 | 3 |
| $* * *$ Elective | 3 | $* *$ BUL 3320 | 3 |
| $* *$ ACG 3101 | 3 | MAN 3025 | 3 |
| $* *$ ACG 3361 | 3 | $* *$ ACG 3111 | 3 |
| $* *$ ACG 3501 | 3 |  |  |

** Accounting majors must have a "C" (2.0) or better in each class to include law and tax and a 2.0 GPA in major.

## Senior

Fall
**TAX 4001
ISM 3011

15 hrs Spring
3 MAN 4720
3 **ACG 4651

15 hrs 3

| FIN 3403 | 3 | $* *$ GEB 4361 | 3 |
| :--- | :---: | :---: | :---: |
| $* *$ ACG 4401 | 3 | $* *$ BUL 3321 | 3 |
| MAR 3023 | 3 | $* *$ ACG 4203 | 3 |

***General electives as required to reach 120 semester hours to include at least 60 semester hours outside the College of Business Administration. Economics courses in the Common Program Prerequisites and the Common Body of Knowledge count toward the 60 hours outside Business Administration.
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[^1]STATISTICS (B.S.)

College of Arts and Sciences
Department of Statistics, CC II 212, 407-823-5562
http://www.cas.ucf.edu/statistics

## E-mail: statistics@ucf.edu

L. Hoffman, 407-823-5525

## Admission Requirements

## none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- All statistics courses except STA 2023, STA 3032, and those protected by Florida Common Course Numbering must be taken from, or approved by the Statistics Department at UCF

Departmental Residency Requirement: at least 15 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Statistics Department

- Students must earn at least a "C" (2.0) in each STA course
- A minimum 2.0 average is required in all computer science and mathematics courses that count toward a statistics major

Co-op or internship credit can not be used in this major
Students should consult with a departmental advisor

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations 7 hrs

Select MAC 2311 Calculus I 4 hrs
Select STA 2023 Statistical Methods I
D. Social Foundations
E. Science Foundations

Select BSC 2010C General Biology
Select PHY 2053C College Physics or
CHM 2045C Chemistry Fundamentals

7 hrs 3 hrs 6 hrs 4 hrs

## 2. Common Program Prerequisites

COP 3502C* Computer Science I
MAC 2311 Calculus I
MAC 2312 Calculus II
BSC 2010C* General Biology
*See Transfer Notes for possible substitutes

## 3. Core requirements

| STA 2023 | Statistical Methods I | GEP |
| :--- | :--- | :---: |
| STA 4102 | Computer Process of Stat Data | 3 hrs |
| STA 4165 | Statistical Methods II with Computer | 3 hrs |
| STA 4164 | Statistical Methods III | 3 hrs |
| STA 4321 | Statistical Theory I | 3 hrs |
| STA 4322 | Statistical Theory II | 3 hrs |
| COT 4500 | Numerical Calculus | 3 hrs |
| MAC 2313 | Calculus with Analytic Geo III | 4 hrs |
| ENC 3241 | Technical Report Writing | 3 hrs |
| COP 3223 | C Language* | 3 hrs |

*may substitute an approved programming language course
Select one course 4 hrs
MAS 3106 Linear Algebra
MAS 3105 Elementary Linear and Matrix Algebra
Select one course 3 hrs
COT 3100C Introduction to Discrete Structure
MHF 2300 Logic and Proof in Mathematics
Select three from among the following: 9 hrs
STA 3096 Statistical Graphics
STA 4173 Biostatistical Methods
STA 4222 Sample Survey Methods
STA 4502 Nonparametric Stat Methods
STA 4664 Statistical Quality Control
STA 4852 Applied Time Series
Select two courses and associated labs (incl. 4 hrs GEP) 4 hrs
BSC 2011C Biological Diversity
CHM 2045C Chemistry Fundamentals I
CHM 2046 \& L Chemistry Fundamentals II
PHY 2053C College Physics I
PHY 2054C College Physics II
Select one course 3 hrs

Select any science course from the College of Arts \& Sciences or any 3000-4000 level science course from the college of Health \& Public Affairs

## 4. Restricted Electives

- Select from upper division or graduate statistics (e.g., STA 5205, STA 5825), mathematics, or computer science courses
- Selected courses in engineering or business may be used but must first be approved by the Statistics Department

MAC 2233, 2253, 2254; all MAE courses; and MHF 4404 may not be used

## 5. Departmental Exit Requirements

Earn a grade of "C" (2.0) or better in each STA course
Computer Competency met by STA 4102

## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## Graduation:

## 7. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed (Note: Statistics majors may count MAC 2313 as upper division credit.)

- 30 semester hours in regular courses completed at UCF
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Mathematics, Mathematics Education, Actuarial Science Track

Related Minors: Statistics, Mathematics

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- COP 3502C*: any COP programming language course. However, COP 3502C is a prerequisite for Computer Sciences courses and may need to be taken.
- BSC 2010C*: any laboratory BSC, CHM, or PHY course. However this is a prerequisite for BSC 2011C and will need to be taken.
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ADVERTISING/PUBLIC RELATIONS (B.A.)

## College of Arts and Sciences

Nicholson School of Communication, COM 250, 407-823-2829,

## http://www.cas.ucf.edu/communication

## E-mail: ad-pr@ucf.edu

Bob Davis
Limited Access program.

## Admission Requirements

- Students should apply to become Advertising/Public Relations majors only after completing all requirements for admission. Deadlines are:

October 1, 2001 for Spring 2002
Feb 1, 2002 for Summer 2002
July 1, 2002 for Fall 2002
Attain an overall minimum 2.25 GPA based on a minimum of 30 credit hours of college work.
Note: meeting the minimum GPA does not guarantee admission since students are admitted on a space available basis. The GPA cut-off varies somewhat with the quality of applicants, but for the previous acceptance periods, the minimum GPA did not drop below 3.1.

Pass a Keyboard Proficiency Test ( 25 wpm or more) within three attempts, or complete a college level keyboard/typing course with a grade of "C" (2.0) or better.

Receive a positive evaluation of other factors specified by the School.

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.

Co-op credit can not be used in the major
Students should consult with a departmental advisor

- School Residency Requirement consists of at least 24 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF School of Communication
- Students electing both a major and minor in the School must take the minor courses in excess of the 120 hours required for graduation
- A maximum of six credit hours of internship may be earned in one semester. A total of nine credit hours of internship may be earned within the 120 credit hours required for graduation
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

Select ENC 1101 \& 1102 Composition
Select SPC 1600C Fund Oral Communication
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Select CGS 1060C Intro to Computer Sci or
STA 2014C Principles of Statistics or
STA 1060C Statistics Using Excel
D. Social Foundations
E. Science Foundations

## 2. Common Program Prerequisites

SPC 1600C Fund Oral Communication

## 3. Core requirements

ADV 3000
Principles of Advertising
GEP

3 hrs
(36 hrs)

6 hrs
3 hrs
9 hrs 6 hrs

3 hrs

3 hrs

6 hrs
6 hrs

| ADV 4101* | Advertising Copywriting | 3 hrs |
| :--- | :--- | :--- |
| ADV 4103 | Radio-TV Advertising | 3 hrs |
| COM 3110 | Business and Prof Communication | 3 hrs |
| MMC 4254 | Ad/PR Campaigns | 3 hrs |
| MMC 3420 | Mass Media Research Methods | 3 hrs |
| MMC 4200 | Mass Communication Law | 3 hrs |
| VIC 3001 | Visual Communication | 3 hrs |
| PUR 3100* | Writing for Public Relations | 3 hrs |
| PUR 4000 | Public Relations | 3 hrs |
| PUR 4801 | Public Relations Case Studies | 3 hrs |
| Students who complete a 3-hour internship may take either PUR 4801 or ADV 4103. |  |  |
| PUR 4941 | Internship |  |
| ADV 4941 | Internship |  |
| *Keyboard Proficiency Test required. |  |  |

## 4. School Exit Requirements

- To avoid delaying graduation, the student must request a review of requirements before registering for the last term.
- Achieve an overall "C" GPA (2.0) in required UCF Ad/PR courses. This GPA does not include Restricted Electives in the major or other electives.
- Computer Competency met by program admission test


## 5. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement
Graduation: One year or equivalent proficiency exam.

## 6. Electives

(variable)
Select primarily from upper level courses, with School advisor's approval. Should be taken outside of the School of Communication.

## 7. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed

- 30 semester hours in regular courses completed at UCF
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Marketing

Related Minors: Business, Marketing, Psychology

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet school requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information

[^2]AEROSPACE ENGINEERING (B.S.A.E.)

## College of Engineering and Computer Science

Mechanical, Materials \& Aerospace Engineering Department, ENGR 307, 407-823-2416 Fax: 407-823-0208, Home Page http://www.mmae.engr.ucf.edu
J. D. McBrayer, E-Mail: mcbrayer@mail.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes engineering academic advisement and registration for first-semester UCF classes; see also the section, Orientation, found elsewhere in this catalog.

## Degree Requirements

- Each engineering student is assigned a qualified aerospace engineering academic advisor in the department of his/her major. Each student must seek academic advisement before registering for classes each semester to minimize excess hours and to ensure that satisfactory academic progress is being maintained.


## 1. UCF General Education Program for Engineering

## Students

(38 hrs)
The UCF General Education Program (GEP) is described in the section, General Education Program, found elsewhere in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations 9 hrs

1. Take ENC 1101
2. Take ENC 1102
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations
7 hrs
3. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
4. Take STA 3032 ( 3 hrs ). Note: Calculus II is the prerequisite for this course.
D. Social Foundations

6 hrs

1. Take ECO 2013 or ECO 2023.
2. Take ANT 2000, PSY 2013, or SYG 2000.
E. Science Foundations

7 hrs

1. Take PHY 2048/48L.
2. Take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

(19 hrs)
These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence which they begin. Students who begin with MAC 2281, Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311, Calculus with Analytic Geometry I, must continue with MAC 2312 and MAC 2313. MAC 2281-MAC 2282-MAC 2283 is the preferred sequence for engineering students. The courses in these two Calculus sequences are not individually interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHS 1440 Fundamentals of Chemistry for Eng 4 hrs
(CHM 2045/45L will substitute)
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)
MAC 2283 Calculus for Scientists \& Engineers III 4 hrs
(MAC 2313 will substitute)
MAP 2302 Differential Equations ..... 3 hrs
PHY 2048/48L Physics for Engineers \& Scientists I ..... GEP
PHY 2049/49L Physics for Engineers \& Scientists II ..... 4 hrs
ENC 1101 Composition I ..... GEP
ENC 1102 Composition II ..... GEP
Humanities Courses ..... GEP
Social Science Courses ..... GEP
Humanities or Social Sciences ..... GEP

## 3. Courses Required for the Major

(61 hrs)
The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.250 GPA in completing these courses, together with the technical elective courses listed in 4. below and with the senior design courses listed in $\mathbf{5}$. below. Independent study courses generally do not satisfy major requirements and normally are awarded grades of I, S, or U.

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1111C Engineering Computer Graphics 2 hrs

EGN 1930 ST: Engineering Concepts \& Methods 1 hr
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics 3 hrs
EGN 3343 Thermodynamics 3 hrs
EGN 3365 Structure \& Properties of Materials 3 hrs
EGN 3930 ST: Principles of Electrical Engnring 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
EAS 3010 Fundamentals of Flight 1 hr
EAS 3101 Aerodynamics I 3 hrs
EAS 3800C Aerospace Engineering Measurements 3 hrs
EAS 3810C Design of Aerospace Experiments 2 hrs
EAS 4105 Flight Mechanics 3 hrs
EAS 4134 High-Speed Aerodynamics 3 hrs

EAS 4505 Orbital Mechanics 3 hrs
EAS 4300 Aerothermodynamics-Propulsion Sys 3 hrs
EML 3034 Modeling Methods in MMAE 3 hrs
EML 3312C Feedback Control 3 hrs
EML 3601 Solid Mechanics 3 hrs
EML 3701 Fluid Mechanics I 3 hrs
EAS 3404C Discrete Control Aerospace Vehicles 3 hrs
EML 4535C Introduction to CAD/CAM 3 hrs

## 4. Approved Technical Electives

Technical electives are available in the BSAE program to address specific student interests in a variety of technical areas. Students must consult with their assigned academic advisor for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 5. Departmental Graduation Requirements

- EAS 4700C Aerospace Design I
- EAS 4710C Aerospace Design II
(6 hrs)
3 hrs
3 hrs
- COECS encourages all engineering students to take the Engineering Intern Exam during their Senior year.


## 6. Foreign Language Requirements

 (0-8 hrs)Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## 7. University Minimum Graduation Requirements

60 semester hours earned after any CLEP award.
48 semester hours of upper division credit completed.
32 semester hours of regular courses completed at UCF.

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted.
- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable).


## Total Semester Hours Required:

 128 hrsRelated Programs: Mechanical Engineering.

## Related Minors: Space Studies.

## Transfer Notes:

- Courses taken from Community Colleges do not substitute for Upper Division Courses
- Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information with his/her petition for this evaluation.
- EGN 1006 and EGN 1930 are required courses for incoming freshman students only. The two credit hours for these courses may be substituted by an approved Aerospace Engineering technical elective for transfer students.


## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Aerospace Engineering - 128 semester hours ${ }^{5}$ required

## FIRST YEAR

Fall ( 14 cred hrs, 18 cont hrs) $)^{1,2} \quad$ Spring ( 15 cred hrs, 19 cont hrs) $)^{1,2}$

| *ENC 1101 English Comp I | 3 EGN 1930 ST: Eng Conc/Meth | 1 |
| :--- | :--- | :--- | :--- |
| *CHS 1440 Chem for Eng or | 4 *ENC 1102 English Comp II | 3 |
| CHM 2045 w/lab | *MAC 2282 Calc Sci\&Eng II or | 4 |
| *MAC 2281 Calc Sci \& Eng I or | 4 MAC 2312 Calculus II |  |
| MAC 2311 Calculus I | *PHY 2048 Phys Eng/Sci I w/lab 4 |  |
| EGN 1006 Intro to Eng Prof <br> Graphics 2 | 1 *SPC 1016 Tech Presentations | 3 EGN 1111C Eng Comp |

Summer (10 credit hrs, 10 contact hrs) 1,2,4
*MAC 2283 Calc Sci\&Eng III or 4
MAC 2313 Calculus III
EGN 3365 Struct \& Prop of Mat'l 3
(PR: CHS 1440 \& MAC 2282)
*Social Foundations 3

## SECOND YEAR

Fall ( 14 cred hrs, 18 cont hrs) $)^{1} \quad$ Spring ( 12 cred hrs, 12 cont hrs)
*Humanities/History ${ }^{1 a} 3$ EGN 3930 ST: Prin Elec Eng 3
*MAP 2302 Diff Equations 3 (PR: PHY 2049, CR: MAP 2302)
*PHY 2049 Phys Eng II w/lab 4 EGN 3321 Engr Anal-Dynmcs 3
EGN 3310 Engr Anal - Statics 3 (PR: EGN 3310, CR: MAC 2283)
(PR: PHY 2048, CR: MAC 2282)
EAS 3010 Fund Aero Flight
EML 3601 Solid Mechanics
3
(PR: EGN 3310, CR: MAP 2302)

Summer ( 9 cred hrs, 9 cont hrs) ${ }^{1,4}$
*ECO 2013 or 2023 Econ I or II

| *Humanities/History ${ }^{1 b}$ | 3 |
| :--- | :--- |
| STA 3032 Prob \& Stats/Engrs | 3 |

## THIRD YEAR

Fall ( 15 cred hrs, 19 cont hrs) $\quad$ Spring ( 14 cred hrs, 18 cont hrs) ${ }^{1}$
EML 3034 Model Meth's MMAE 3 EAS 3101 Fund of Aerodyn 3 (PR: EGN 1111C, MAP 2302, (PR: EML 3701) High Lev Prog; CR: EGN 3321)

EML 3701 Fluid Mechanics I (PR: MAP 2302, EGN 3343)

EAS 3800C Aerosp Eng Msr (PR: EML 3601, CR: EGN 3343)

EML 3312C Feedback Control (PR: EGN 3321, 3373 or 3930 MAP 2302)

EAS 4200 Flight Structures (PR: EML 3601, EML 3034)
*Earth Science

## FOURTH YEAR

Fall (12 cred hrs, 18 cont hrs)
EML 4535C CAD/CAM
(PR: EGN 3343, EML 3034, EML 3601; CR: EAS 4200 or EML 3500)

EAS 4105 Flight Mechanics (PR: EAS 3101, EML 3312C)

3 EAS 4210 Space Struct Dyn
(PR: EML 3312C, EAS 4200)
3

Spring ( 13 cred hrs, 17 cont hrs) ${ }^{1,3}$
3 EAS 4300 Aerotherm Prop Sys 3 (PR: EAS 4134 or EML 4703C)

EAS 4710C Aerosp Design II 3
(PR: EAS 4700C)
3 Technical Electives 4

$$
\text { *Humanities/History }{ }^{2}
$$

# EAS 4134 High-Spd Aerodyn 

(PR: EAS 3101)
EAS 4700C Aerosp Design I 3
(PR: EAS 3810C)

## Footnotes:

1. Courses marked with an asterisk (*) are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.
2. All students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable.
3. Students should consult with the MMAE Department in ENGR 381 for a list of approved technical electives and for the terms when specific courses of this type are to be offered. Students should check with their faculty advisor frequently to ensure they are making satisfactory progress toward their degree.
4. The State University System requires most students to complete a minimum of nine semester hours during summer terms prior to graduation. See the section on Summer Attendance Requirement elsewhere in this catalog.
5. Aerospace engineering students must earn at least 32 hours in residence at UCF.

## IMPORTANT NOTICE

Bolded course should be taken in the term noted or in a previous term if your schedule permits and as long as all prerequisites for that course have been met.

- A number of the bolded courses are given only during the term noted in this program of study, therefore it is imperative that you take them in the suggested sequence. Failure to do so may result in a considerable delay in the date of your graduation.

Non-bolded course may be taken at any time as long as all prerequisites for that course have been met. Caution must be taken to ensure that you take courses in a proper sequence regarding prerequisites.

- Please meet with your advisor if you have any questions regarding your schedule. Do not drop any course before discussing this action with your advisor - there may be alternative actions which will
benefit you.
- If you do not have a higher level programming language background you must take a course in this area prior to taking EML 3034 ("C" or FORTRAN recommended).
- If you are not ready to begin the calculus sequence upon entry to the Aerospace Engineering curriculum it is imperative that you meet with your advisor to plan a personalized program of study. Mathematics and physics are cornerstones of a quality engineering program and it is important for your academic career that you proceed accordingly.


## Integrated BS/MS Degree Program

The Mechanical, Materials, and Aerospace Engineering Department offers the Integrated BS/MS program to students of high academic standing. This program allows up to nine graduate hours to be substituted for specified BS requirements. See advisor for appropriate substitutions.

ART - ANIMATION TRACK (B.A.)

## College of Arts and Sciences

Animation, VAB 210, 407-823-3110,
http://reach.ucf.edu/~art

## E-mail: animation@ucf.edu

D. Haxton

Restricted Access program.

## Admission Requirements

- Students should complete ART 2201C \& 2203C (Design Fundamentals), ART 2300C \& 2301C (Drawing Fundamentals), ART 2600C (Computer Graphics), and FIL 3282C (Introduction to Cel Animation) before applying

Students must submit a satisfactory drawing portfolio to be admitted to FIL 4283C (Intermediate Cel Animation) or FIL 3286C (Introduction to Computer Animation)

- Students must maintain an overall minimum 3.0 GPA in the above courses

Applications must include a portfolio of work done in courses, including drawings, design projects, computer graphics, animation work, and storyboards

- Deadlines for applications for admission into Animation are September 15 for Spring term and February 1 for the Fall term

Students are admitted on a space available basis

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
Co-op credit can not be used in the major

- Students should consult with a departmental advisor
- Departmental Residency Requirement consists of at least 24 semester hours of regularly scheduled 3000-4000 level courses taken within the UCF Art and Film programs
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations

Take one two-semester sequence
Select ARH 2050 The History of Art I
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Select CGS 1060C Intro to Computer Sci
D. Social Foundations
E. Science Foundations
2. Common Program Prerequisites

ART 2201C Design Fundamentals I
ART 2203C Design Fundamentals II 3 hrs
ART 2300C Drawing Fundamentals I 3 hrs
ART 2301C Drawing Fundamentals II 3 hrs
ARH 2050 History of Art I GEP
ARH 2051 History of Art II 3 hrs
ART 2600C Intro to Computer Graphics 3 hrs
ART 2XXX-4XXX any ART prefix, studio, or media course 3 hrs

## (21 hrs)

3 hrs

## 3. Core Requirements

(6 hrs)

## 4. Restricted Upper Division Elective

Complete one of the 2 tracks. Workshops may be repeated.

## Computer Animation

FIL 3286C Intro to Computer Animation 3 hrs
FIL 3287C Intermediate Computer Animation 3 hrs
FIL 4288C Advanced Computer Animation 3 hrs
FIL 4289C Computer Animation Workshop 3 hrs
Cel Animation
FIL 4283C Intermediate Cel Animation 3 hrs
FIL 4293C Advanced Cel Animation 3 hrs
FIL 4294C Cel Animation Workshop 6 hrs

## 5. Elective in Art

Select four courses; two may be lower division
Select from at least three of the following areas:
Ceramics, Drawing, Fibers and Fabrics, Graphic Design, Illustration, Painting, Photography, Printmaking, Sculpture, and Special Topics Studio Courses.

## 6. Departmental Exit Requirements

ART 4971 Thesis
3 hrs

Achieve at least a "C" GPA (2.0) in courses within the major
Computer Competency met by CGS 1060C or ART 2600C

Admission: Met by graduation requirement
Graduation: One year college level or equivalent proficiency exam.

## 8. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 9. University Minimum Exit Requirements

- A 2.0 UCF GPA
- 60 semester hours earned after CLEP awarded

48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Art, Art Education, Art History, Film Production/Screen writing, Radio/TV

## Related Minors: Art, Digital Media, Film

## Transfer Notes:

- Grades below "C-" (1.75) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:
ART 2600C: may substitute three hours of any computer course

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Orlando, Florida
(407) 823-2000

ANTHROPOLOGY (B.A.)

## College of Arts and Sciences

Department of Sociology and Anthropology, PH 403,
407-823-2227,
http://www.cas.ucf.edu/soc_anthro/firstpage.html

## E-mail: anthropology@ucf.edu

J. Corzine, 407-823-2227

The Anthropology major results in broad holistic understanding of humans and the human condition, both past and present. Students study all subfields of Anthropology: Archaeology, Cultural Anthropology, Linguistics, and Physical Anthropology.

Students with sufficient course background may participate in ongoing archaeological excavations associated with the Maya culture in the Central American country of Belize.

## Admission Requirements:

none

## Degree Requirements

- UCF students who change degree programs and select this major must adopt the most current catalog.

Departmental Residency Requirement: at least 30 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Sociology and Anthropology Department

Students must maintain a grade of "C" (2.0) or better in all courses used for the major
Co-op or internship credit can not be used in the major
Students should consult with a departmental advisor

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 1105 College Algebra (or higher)
Select STA 2023 Statistical Methods I
D. Social Foundations

Select one: ECO 2013, ECO 2023, POS 2041
Select ANT 2000 General Anthropology
E. Science Foundations

Select one: PSC 1121, PHY 2053C, CHM 10203 hrs
Select ANT 2511 The Human Species
2. Common Program Prerequisites

ANT 2000* General Anthropology
ANT 2511* The Human Species GEP
*See Transfer Notes for possible substitutes
(36 hrs)
9 hrs
9 hrs

3 hrs
3 hrs

3 hrs
3 hrs

3 hrs
(0 hrs)
GEP
3. Core Requirements: Lower Level

ANT $2100 \quad$ Arch \& the Rise of Human Cult 3 hrs
ANT 2410 Cultural Anthropology 3 hrs

## 4. Core Requirements: Upper Level

All students are required to take the following upper level courses in the four subdisciplines of Anthropology:

ANT 3145 Archaeology of Complex Societies 3 hrs

| ANT 3640 | Language and Culture | 3 hrs |
| :--- | :--- | :---: |
| ANT 4034 | History of Anthropological Thought | 3 hrs |
| ANT 4586 | Human Origins | 3 hrs |

## 5. Core Requirements: Area Study

All students are required to take one of the following courses:
ANT 3163 Mesoamerican Archaeology
ANT 3168 Maya Archaeology (or ANG 5168)
ANT 3311 Indians of the SE US
ANT 3312 Ethnology of North American Indians
ANT 3313 Indians of N American High Plains
ANT 3314 Indians of the Northeast Woodlands
ANT 3318 Indians of the Northwest Coast
ANT 3319 The Anthropology of Diaspora
ANT 3332 Peoples and Culture of Latin America
ANT 3340 Caribbean Cultures
ANT 3363 Anthropology of Japan
ANT 4308 Gender Issues in Latin America
ANG 5324 Contemporary Maya

## 6. Restricted Electives

(18 hrs)
Six other Anthropology courses must be taken to complete the major. These may include other area study courses (see 5. above) or any other Anthropology courses that may be offered (see, for instance, the courses listed within the concentrations that may make up an Anthropology minor).

## 7. Departmental Exit Requirements

A grade of "C" (2.0) or better in all courses used for the major

- Computer Competency met by ANT 2100
- Students will be required to take a standard exit exam.


## 8. Foreign Language Requirements

- Admission: Met by graduation requirement.

Graduation: Two semesters or equivalent proficiency exam.

## 9. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. These courses may be outside of the department.

## 10. University Minimum Exit Requirements

A "C" (2.0) GPA in all work attempted (both UCF and overall)
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

## Related Programs: Sociology, Graduate Certificate in Maya Studies

Related Minors: African-American Studies, American Studies, Anthropology, Anthropology in Multicultural Studies, Asian Studies, Judaic Studies, Latin American and Iberian Studies, Russian Area Studies, Sociology, and Women's Studies

## Transfer Notes:

Grades below "C" (2.0) from other institutions do not meet departmental requirements
Courses taken at community colleges do not substitute for Upper Division courses

- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- ANT 2000: any ANT course. However, this course is a prerequisite and must be taken regardless.

ANT 2511: any ANT course. However, ANT 2511 will need to be taken for the major.

ART (B.F.A.)

## College of Arts and Sciences

Art Department VAB 117, 407-823-2676,
http://reach.ucf.edu/~art
E-mail: art@ucf.edu
J. Chavda, 823-2676

The BFA degree is recommended for studio art majors who plan to attend graduate school.

## Admission Requirements

- Upon completion of 90 semester hours, a student may submit a formal application and a portfolio to the faculty.

All applicants will be reviewed by the Art BFA Portfolio Review Committee. Deadlines for formal application are the first Thursday in November and the Third Thursday in February.

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Departmental Residency Requirement consists of at least 18 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Art. Nine of these must be in an area of specialization.

Co-op credit can not be used in this major

- Students should consult with a departmental advisor
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours.

1. UCF General Education Program

| A. Communication Foundations | 9 hrs |
| :--- | ---: |
| B. Cultural and Historical Foundations |  |
| Take one two-semester sequence | 6 hrs |
| Select ARH 2050 The History of Art I |  |
| C. Mathematical Foundations | 3 hrs |
| Select MGF 1106 Finite Mathematics |  |
| (may substitute a higher level math) | 3 hrs |
| Prefer STA 1060C Statistics Using Excel | 6 hrs |
| D. Social Foundations | 6 hrs |

E. Science Foundations 6 hrs
2. Common Program Prerequisites

ART 2201C* Design Fundamentals I
ART 2203C* Design Fundamentals II
ART 2300C* Drawing Fundamentals I 3 hrs
ART 2301C* Drawing Fundamentals II 3 hrs

| ART 2820 | Art as Interface | 3 hrs |
| :--- | :--- | :---: |
| ARH 2050 | History of Art I | GEP |
| ARH 2051 | History of Art II | 3 hrs |
| ARH 2005 | Survey of Non-Western Art | 3 hrs |
| ART 2600C* | Intro to Computer Graphics | 3 hrs |

(27 hrs)
3 hrs
3 hrs

3 hrs

3 hrs

ART 2XXX-4XXX any ART prefix, studio or media course 3 hrs
*See Transfer Notes for possible substitutes

## 3. Restricted Electives

Specialization:

Select six upper division courses from one area:
Ceramics (ART 3111C, 4114C)
Computer and Cel Animation (FIL 3282C, 3286C, 3287C, 4283C, 4288C*, 4289C*, 4293C*, 4294C*)

Drawing/Printmaking Combination (ART 3330C, 3400C, 4320C*, 4402C*)
Drawing/Illustration Combination (ART 3330C, 3253C, 4320C*, 4260C*)
Fibers and Fabrics (ART 3XXXC*, 4138C*)
Graphic Design (ART 3239C, 3232C, 3610C, 4235C, 4237C*)
Painting (ART 3520C, 4530C*)
Photography (PGY 2401C, 4420C*, 4440C*)
Sculpture (ART 2701C, ART 4703C*).
*may be repeated for credit
Elective in Art:
15 hrs
Select five Art courses; two of which may be lower division
Select from at least three of the following areas, excluding the area of specialization.
Cel Animation, Ceramics, Computer Animation, Drawing, Fibers and Fabrics, Graphic Design, Illustration, Painting, Photography, Printmaking, Sculpture, and Special Topics Studio Courses.

Additional Electives 6 hrs

ARH 3XXX-4XXX Art History Courses or
Any upper level Humanities or
Social Science course(s)
(A maximum of six hours of Independent Study, Practicum, and Internship are permitted.)

## 4. Departmental Exit Requirements

(3 hrs)
ART 4935C BFA Exhibit/Seminar
ART 5XXX The Professional Practice of Art
(BFA Exhibit Seminar is only offered during Spring Semester)

- Achieve at least a "B" GPA (3.0) overall and no less than a grade of "C" (2.0) in courses within the major

Each senior is required to submit a portfolio of representative work in the student's area of concentration, for review and approval by faculty, during their last semester of matriculation toward the degree

- Computer Competency met by STA 1060 C or ART 2600C


## 5. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement
Graduation: One year or equivalent proficiency exam

## 6. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department

## 7. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: Art History, Studio Art (BA), Art Education, Animation, Digital Media

Related Minors: Partners in Visual Art Education

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- ART 2201C* and 2203C*: A student may substitute a four credit ART 2201C; however, both ART 2201 C and 2203C are prerequisites for subsequent art course and will need to be taken for the major.
- ART 2300C* and 2301C*: A student may substitute a four credit ART 2300C; however, both ART 2300C and 2301C are prerequisites for subsequent art courses and will need to be taken for the major. - ART 2600C*: A student may substitute any three hour media course; however, ART 2600C is a prerequisite for subsequent art courses and will need to be taken for the major.

[^3]ART - HISTORY TRACK (B.A.)

## College of Arts and Sciences

Art Department, VAB 117, 407-823-2676
http://reach.ucf.edu/~art
E-mail: art@ucf.edu
J. Chavda, 407-823-2676

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Co-op credit can not be used in the major
- Students should consult with a departmental advisor
- Departmental Residency Requirement consists of at least 18 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Art. Nine of these must be in an area of ARH specialization.
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations

Take one two-semester sequence

9 hrs

6 hrs

| Select ARH 2050 The History of Art I |  | 3 hrs |
| :---: | :---: | :---: |
| C. Mathematical Foundations |  |  |
| Select $M G F$ <br> (may substitu | 06 Finite Mathematics a higher level math) | 3 hrs |
| Prefer STA 1 | 0C Statistics Using Excel | 3 hrs |
| D. Social Fou | dations | 6 hrs |
| E. Science Four | dations | 6 hrs |
| 2. Common | ogram Prerequisites | (9 hrs) |
| ART 2201C | Design Fundamentals I | 3 hrs |
| ART 2300C | Drawing Fundamentals I | 3 hrs |
| ARH 2050 | History of Art I | GEP |
| ARH 2051 | History of Art II | 3 hrs |
| 3. Core Requirements |  | (15 hrs) |
| ARH 4310 | Italian Renaissance Art | 3 hrs |
| ARH 4430 | Nineteenth Century Art | 3 hrs |
| ARH 4450 | Twentieth Century Art | 3 hrs |
| ARH 4800 | Theory and Criticism | 3 hrs |
| ENC 3311 | Expository Writing | 3 hrs |

## 4. Restricted Electives

One Non-Western Art History Course:
ARH 3520 African Art
ARH 4545 Art of India
ARH 4655 MesoAmerican Art
One of the following courses:
ARH 4892 Women in Art
ARH 4350 Baroque ArtARH 5478 Contemporary Women Artists
ARH 4170 Greek and Roman Art
ARH 3710 History of Photography I
ARH 3711 History of Photography II
ARH 3720 History of Prints
ARH 4655 MesoAmerican Art
ARH 3683 Southern Folk Arts
ARH 3820 Visual Arts Administration
ARH 5933 Sem. in African \& African-American Arts
5. Departmental Exit Requirements ..... (4 hrs)
ARH 4912 Senior Thesis ..... 3 hrs
ARH 4906 Comprehensive Exam ..... 1 hr- Achieve at least a "C" GPA (2.0) in courses within the major

- Computer Competency met by STA 1060C, ART 2600C, or ARH 3820


## 6. Foreign Language Requirements

Admission: Met by graduation requirement.
Graduation: Two years or equivalent proficiency exam.

## 7. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed

- 30 semester hours in regular courses completed at UCF
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required

## 120 hours

Related Programs: Studio Art (BA, BFA), Art Education, Animation, Digital Media.

Related Minors: Studio Art, Partners in Visual Art Education

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information

ART - STUDIO TRACK (B.A.)

## College of Arts and Sciences

Art Department VAB 117, 407-823-2676
http://reach.ucf.edu/~art/
E-mail: art@ucf.edu
J. Chavda, 407-823-2676

## Admission Requirements

A portfolio is required for the Graphics Design Specialization. Deadline for application is April 1st prior to beginning the Fall of the Junior year.

- A portfolio is required for the Animation Specialization. Deadlines for application are September 15 for Spring term and February 1 for the Fall term. Note: Unfortunately, individual reviews are not possible due to the large number of applicants to these programs.


## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Co-op credit can not be used in the major
- Students should consult with a departmental advisor

Departmental Residency Requirement consists of at least 18 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Art. Nine of these must be in an area of specialization.

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program
A. Communication Foundations

| B. Cultural and Historical Foundations |  |
| :--- | ---: |
| Take one two-semester sequence | 6 hrs |
| Select ARH 2050 The History of Art I | 3 hrs |
| C. Mathematical Foundations |  |
| Select MGF 1106 Finite Mathematics | 3 hrs |
| (may substitute a higher level math) | 3 hrs |
| Prefer STA 1060C Statistics Using Excel | 6 hrs |
| D. Social Foundations | 6 hrs |

2. Common Program Prerequisites
ART 2201C Design Fundamentals I 3 hrs
ART 2203C Design Fundamentals II 3 hrs

ART 2300C Drawing Fundamentals I 3 hrs
ART 2301C Drawing Fundamentals II 3 hrs
ART 2280 Art As Interface 3 hrs
ARH 2050 History of Art I GEP
ARH 2051 History of Art II 3 hrs
ARH 2005 Survey of Non-Western Art 3 hrs

ART 2600C* Intro to Computer Graphics 3 hrs ART 2XXX-4XXX any ART prefix, studio or media course 3 hrs
*See Transfer Notes for possible substitutes

## 3. Restricted Electives

Specialization:

Select five upper division courses from one area:
Ceramics (ART 3111C, 4114C*)

Computer and Cel Animation (FIL 3282C, 3286C, 3287C, 4283C, 4288C*, 4289C*, 4293C*, 4294C*)

Drawing and Printmaking (ART 3330C, 3400C, 4320C*, 4402C*)
Fibers and Fabrics (ART 3XXXC, 4138C*)
Graphic Design (ART 3239C, 3232C, 3610C, 4235C, 4237C*)
Painting (ART 3520C, 4530C*)
Photography (PGY 2401C, 4420C*, 4440C*)
Sculpture (ART 2701C, 4703C*)
*may be repeated for credit
Elective in Art: 12 hrs

Select four Art courses, two of which may be lower division
Select from at least three of the following areas, excluding the area of specialization.
Cel Animation, Ceramics, Computer Animation, Drawing, Fibers and Fabrics, Graphic Design, Illustration, Painting, Photography, Printmaking, Sculpture, and Special Topics Studio Courses. Additional Electives 6 hrs

ARH 3XXX-4XXX Art History Courses

## 4. Departmental Exit Requirement

Each senior is required to submit a portfolio of representative work in the student's area of specialization, for review and approval by faculty, during their last semester of matriculation toward the degree

- Achieve at least a "C" GPA (2.0) in courses within the major

Computer Competency met by STA 1060C or ART 2600C

## 5. Foreign Language Requirements

## (0-8 hrs)

Admission: Met by graduation requirement
Graduation: One year or equivalent proficiency examination.

## 6. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the

## 7. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Art History, Studio Art (BFA), Art Education, Animation, Digital Media

Related Minors: Partners in Visual Art Education

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:
ART 2600C: may substitute 3 hours of any media course

ART EDUCATION (B.S.)

## College of Education

Department of Instructional Programs and Educational Leadership, ED346, 407-823-2939
Coordinator: Thomas Brewer, ED141, 407-823-3714,
Web Address: http://www.edcollege.ucf.edu/
E-mail: tbrewer@mail.ucf.edu

## Admission Requirements

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university

Have a minimum 2.5 overall GPA

- Pass four parts of the CLAST examination (no alternatives are accepted)
- Complete prerequisite courses


## Degree Requirements

Students should see an advisor

- The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II

| B. Cultural-His | Historical Foundations* | (9 hrs) |
| :---: | :---: | :---: |
| AMH 2010 U | U.S. History 1492-1877 | 3 hrs |
| AMH 2020 U | U.S. History 1877-Present | 3 hrs |
| PHI 2010 I | Introduction to Philosophy | 3 hrs |
| C. Mathematic | tical Foundations* | (6 hrs) |
| MGF 1106 F | Finite Mathematics | 3 hrs |
| Select one: |  |  |
| STA 1060C B | Basic Statistics using MS Excel or | 3 hrs |
| STA 2014C P | Principles of Statistics | 3 hrs |
| D. Social Foun | undations | (6 hrs) |
| POS 2041 A | American National Government | 3 hrs |
| PSY 2013 | General Psychology | 3 hrs |
| E. Science Fou | oundations | (6 hrs) |
| PSC 1121 P | Physical Science | 3 hrs |
| Select one: |  |  |
| ANT 2511 T | The Human Species or | 3 hrs |
| BSC 1005 B | Biological Principles | 3 hrs |
| Note: See laboratory component under Section 2. |  |  |
| 2. Common P | Program Prerequisites | (46 hrs) |
| A. Communica | ications | (9 hrs) |
| ENC 1101 | 1 Composition I | GEP |
| ENC 1102 | 2 Composition II | GEP |
| SPC 1600C F | Fundamentals of Oral Communication | GEP |
| B. Humanities |  | (6 hrs) |
| PHI 2010 | Introduction to Philosophy | GEP |
| ARH 2050 | 50 The History of Art I | 3 hrs |
| C. Mathematic | tics | (9 hrs) |

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History 1492-1877 GEP

AMH 2020 U.S. History 1877-Present
POS 2041 American National Government
PSY 2013 General Psychology
E. Science

PSC 1121 Physical Science
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Select one:
AST 2002 Astronomy
GEO 1200 Physical Geography
GLY 1030 Geology and its Applications
Select one associated science lab:
BSC 1005L Biological Principles Laboratory
GEO 1200L Physical Geography Laboratory
PSC 1121L Physical Science Laboratory
F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations
EME 2040 Intro to Educational Technology
G. Diversity Courses
H. Other Program Prerequisites

## GEP

## GEP

U.S. History

## GEP

GEP

## GEP

( $9 \mathrm{hrs}+\mathrm{lab}$ )
GEP
GEP

3 hrs

1 hr
(9 hrs)
3 hrs 3 hrs 3 hrs

GEP
(27 hrs)

| *ARH 2051 | History of Art II | 3 hrs |
| :--- | :--- | :---: |
| *ART 2201C | Designs Fundamentals I | 3 hrs |
| *ART 2203C | Designs Fundamental II | 3 hrs |
| *ART 2300C | Drawing Fundamentals I | 3 hrs |
| *ART 2301C | Drawing Fundamentals II | 3 hrs |
| *ART 2600C | Intro to Computer Graphics | 3 hrs |
| ART 2110C | Ceramics | 3 hrs |
| ART 2400C | Printmaking | 3 hrs |
| ART 2510C | Painting I | 3 hrs |
| *Prerequisites for all 2000, 3000, and 4000 core and elective ART courses. |  |  |

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to $2000-01$, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in Art Education take a series of core and specialization courses to prepare them to teach art in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Art Education major's program and to link theory to practice in actual school settings. Throughout the Art Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 5. Foreign Language Requirements

(0-8 hrs)
State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

Achieve a minimum 2.5 GPA in all courses within the major.
Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

- Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.


## 7. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

## 8. Total Semester Hours Required

## To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.
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BIOLOGY (B.S.)

## College of Arts and Sciences

Biology Department, BL 210, 407-823-2141
http://pegasus.cc.ucf.edu/~biology/
E-mail: biology@ucf.edu
W. Taylor, 407-823-2141

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

No credit by exam (CLEP, TSD, AP, Military credit), grades below "C" (2.0), or "S" grades from other institutions may be used for the major.

Co-op or internship credit can not be used in this major

- No more than 4 hours of BSC 4422L, Independent Study, Directed Research, or similar types of credit may be applied toward major requirements.
- Departmental Residency Requirement consists of at least 22 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Biology Department.
- Students seeking a double major must satisfy the requirements for both majors and must take no fewer than 40 semester hours of upper division restricted elective course work appropriate to the combined areas of specialization of the two majors.

Courses designated in 2 (Common Program Prerequisites) and 3 (Core Requirements) are usually completed in the first 60 hours.

- A minor in Biology will not be awarded to students who expect to complete a degree or who have previously obtained a degree in any Life Science program.
(Note: Certain course selections must be made in the GEP for this major. These are indicated in italics. These required selections may bring the total GEP hours to more than 36.)
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 2311 Calculus or
MAC 2241 Calculus for Life Sciences 4 hrs
Select STA 2023 Statistical Methods I
D. Social Foundations
E. Science Foundations

Select PHY 2053C College Physics
(PR:MAC 1105 and MAC 1114) 4 hrs
Select BSC 2010C General Biology
2. Common Program Prerequisites

BSC 2010C*
BSC 2011C*
MAC 2311*
STA 2023*
CHM 2045C
CHM 2046 \& L Chem. Fund II \& lab
Select one Physics sequence with labs*
PHY 2053C College Physics I
PHY 2054C College Physics II
or
PHY 2048 \& L Physics Engr. \& Sci. I \& Lab
PHY 2049 \& L Physics Engr. \& Sci. II \& Lab
*See Transfer Notes for possible substitutes

| 3. Core requirements | (22-24 hrs) |  |
| :--- | :---: | :---: |
| CHM 2210 | Organic Chem. I | 3 hrs |
| and |  |  |
| CHM 2211 \& L Organic Chem. II \& lab <br> or | 5 hrs |  |
| CHM 3120C | Analytical Chemistry |  |
| and |  | 5 hrs |
| CHM 2205 | Intro Organic \& Biochemistry | 5 hrs |
| PCB 3034 | Ecology | 3 hrs |
| PCB 3063 | Genetics | 3 hrs |
| PCB 3023 | Molecular Cell Biology | 3 hrs |
| PCB 4683C | Population Biol \& Evolution | 5 hrs |

(Note: Students planning on entering professional or graduate school should take Biochemistry (BCH $4053,4054)$ as well as additional Calculus courses. Students are urged to consult their departmental advisor.)

## 4. Upper Division Restricted Electives

(22 hrs)

- Courses must be selected from the groupings listed below.
- Student must complete at least one course dealing exclusively with animals (marked a) and one course dealing exclusively with plants (marked b).
- At least three credit hours from each group must be completed.
- No more than 12 hours of the upper division restricted electives may be taken outside the Biology Department.
- Transferred courses must be at a 3000 level or higher, and be evaluated by a departmental advisor, in order to count as an Upper Division Restricted Elective.
- Courses at the 5000 level are only open to seniors and beginning graduate students.

Form/Function (minimum of one lecture course)

| BCH 4054 |  | Biochemistry II | 3 hrs |
| :---: | :---: | :---: | :---: |
| b BOT 4223C | Plant Anatomy | 4 hrs |  |
| b BOT 4303C | Plant Kingdom | 5 hrs |  |
| b BOT 4503C | Plant Physiology | 4 hrs |  |
| BSC 4101 | History of Biology | 3 hrs |  |
| PCB 3063L G | Genetics Laboratory 1 | 1 hr |  |
| PCB 3233 I | Immunology | 3 hrs |  |
| PCB 4524 | Molecular Biology II | 3 hrs |  |
| a PCB 4723 | Animal Physiology | 4 hrs |  |
| PCB 5665 | Human Genetics | 4 hrs |  |
| a ZOO 3713C | Comparative Vert Anatomy | 5 hrs |  |
| a ZOO 4603C | Embryology/Development | 5 hrs |  |
| a ZOO 4753C | Vertebrate Histology | 4 hrs |  |
| Environmental | (minimum of one lecture coursin | course) |  |
| b BOT 3152C | C Local Flora | 3 hrs |  |
| b BOT 3800 |  | Ethnobotany | 3 hrs |
| b BOT 4156C | Florida Wildflowers | 4 hrs |  |
| b BOT 4696C | Conservation of Native Plants | ts 4 hrs |  |
| b BOT 5623C | Plant Geography \& Ecology | 4 hrs |  |
| BSC 4312C | Marine Biology | 4 hrs |  |
| IDS 3150 | Interdisc Environmental Studie | dies 3 hrs |  |
| PCB 3034L E | Ecology Laboratory 1 | 1 hr |  |
| PCB 3442 | Florida Aquatic Ecology | 3 hrs |  |
| PCB 4302C P | Physicochemical Limnology | 4 hrs |  |
| PCB 4303C B | Biological Limnology | 4 hrs |  |
| PCB 5045C C | Conservation Biology 4 | 4 hrs |  |
| PCB 5238C L | Landscape Ecology 4 | 4 hrs |  |
| PCB 5326C E | Ecosystems of Florida 5 | 5 hrs |  |


| PCB 5485 | Models in Ecology | 3 hrs |
| :--- | :---: | :---: |
| a ZOO 5881C | Fisheries Management | 4 hrs |
| a ZOO 5815 |  | Zoogeography |$\quad 4 \mathrm{hrs}$

## 5. Departmental Exit Requirements

- A minimum GPA of 2.0 in all UCF courses taken in the Common Program Prerequisites, the Biology Core and the Upper Division Restricted Electives.
- To demonstrate Computer Competency students are expected to 1 ) check and maintain their campus electronic mail account and 2) be capable of locating, viewing, and retrieving documents on the World Wide Web.
- Students will be required to take a comprehensive exam in biology during their last semester. The exam will be given in the Fall and Spring semesters. Students who plan to graduate in the Summer must take the exam in the Spring.
- Biology majors may not take any courses required in the major as a transient student at a community college.


## 6. Foreign Language Requirements

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 7. Electives

 (variable)Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Molecular and Microbiology, Science Education, Environmental Engineering

Related Minors: Biology, Molecular and Microbiology

## Transfer Notes:

Grades below "C" (2.0) from other institutions do not meet departmental requirements.
Courses taken at community colleges do not substitute for Upper Division courses.
Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

## Acceptable Substitutes

The following substitutions are acceptable for common program prerequisites if taken as part of the AA course work:

- BSC 2010C \& Lab: may use PCB 2010, PCB 2011, PCB 2021, PCB 2131, BSC 1040, or BSC 2012

BSC 2011C \& Lab: may use ZOO 2010, BOT 2010, BSC 2041, or BOT 1013. However, subsequent Biology courses require either BSC 2011C or both ZOO 2010 and BOT 2010. - STA 2023: may use STA 2122, STA 2014, STA 2023, STA 2024, STA 2321, MAC 2234, MAC 2254, or MAC 3282. However, statistics at or above the level of STA 2023 is required in the major and still must be taken.

- MAC 2311: may use MAC 2233, MAC 2253 or MAC 2281
- Physics: Although Common Program Prerequisites permit substituting Organic Chemistry for Physics, both Physics and Organic Chemistry must be taken as part of the Biology degree requirements.

BIOLOGY - PREPROFESSIONAL CONCENTRATION (B.S.)

## College of Arts and Sciences

Biology Department, BL 210, 407-823-2141
http://pegasus.cc.ucf.edu/~biology/
E-mail: biology@ucf.edu
D. Kuhn

Students who hope to gain admission to a professional school (medical, dental, optometry, etc.) can meet the admission requirements while pursuing a Biology degree. The following track lists courses that will meet both sets of requirements.

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

No credit by exam (CLEP, TSD, AP, Military credit), grades below "C" (2.0), or "S" grades from other institutions may be used for the major.

NOTICE: Professional schools do not accept AP or IB credit.
Co-op or internship credit can not be used in the major
No more than four hours of BSC 4422L, Independent Study, Directed Research, or similar types of credit may be applied toward major requirements.

Departmental Residency Requirement consists of at least 23 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Biology Department.

- Students seeking a double major must satisfy the requirements for both majors and must take no fewer than 40 semester hours of upper division restricted elective course work appropriate to the combined areas of specialization of the two majors.
- Courses designated in 2 (Common Program Prerequisites) and 3 (Core Requirements) are usually completed in the first 60 hours.
- A minor in Biology will not be awarded to students who expect to complete a degree or who have previously obtained a degree in any Life Science program.


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 2311 Calculus or
MAC 2241 Calculus for Life Sciences 4 hrs
Select STA 2023 Statistical Methods I
D. Social Foundations

Prefer PSY 2013 General Psychology
Prefer ECO 2013 Economics
E. Science Foundations

Prefer PHY 2048 \& L College Physics \& lab (PR:MAC 2311) 4 hrs

Select BSC 2010C General Biology
2. Common Program Prerequisites

BSC 2010C* General Biology
BSC 2011C* Biological Diversity
MAC 2311* Calculus w/ Analytic Geometry
STA 2023* Statistical Methods I
CHM 2045C* Chem Fund I
CHM 2046 \& L Chem. Fund II \& lab
PHY 2048* \& L Physics for Engr. \& Sci. I \& Lab
PHY 2049* \& L Physics for Engr. \& Sci. II \& Lab

3 hrs
3 hrs

4 hrs

| 3. Additional Core requirements | (22 hrs) |  |
| :--- | :--- | ---: |
| PCB 3034 | Ecology | 3 hrs |
| PCB 3063 | Genetics | 3 hrs |
| CHM 2210 | Organic Chem. I | 3 hrs |
| CHM 2211 \& L Organic Chem. II \& lab | 5 hrs |  |
| PCB 3023 | Molecular Cell Biology | 3 hrs |
| PCB 4683C | Population Biology \& Evolution | 5 hrs |

## 4. Restricted Electives (Suggested)

(22 hrs)
The following suggestions are appropriate for many professional schools. Consult a departmental advisor and be cognizant of the professional school's requirements.

## Form/Function

BCH 4053
BCH 4054
PCB 3063L Genetics Lab
PCB 4524 Molecular Biology II
PCB 3233 Immunology
PCB 5665C Human Genetics
a PCB 4723
a ZOO 3713C Comparative Vert Anatomy
a ZOO 4603C Embryology/Development
a ZOO 4753C Vertebrate Histology
Environmental
b BOT 3800
Systematic
MCB 3020C General Microbiology 5 hrs
a ZOO 4205C Bio \& Ecol of Metazoan Inverts 4 hrs

## 5. Departmental Exit Requirements

- A minimum GPA of 2.0 in all UCF courses taken in the Common Program Prerequisites, the Biology Core and the Upper Division Restricted Electives.
- To demonstrate Computer Competency students are expected to 1 ) check and maintain their campus electronic mail account and 2) be capable of locating, viewing, and retrieving documents on the World Wide Web.
- Students will be required to take a comprehensive exam in biology during their last semester. The exam will be given in the Fall and Spring semesters. Students who plan to graduate in the Summer must take the exam in the Spring.

Biology majors may not take any courses required in the major as a transient student at a community college.

## 6. Foreign Language Requirement

 (0-8 hrs)Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none
(Spanish highly recommended)

## 7. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted

Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required 120 hours

Related Programs: Biology, Chemistry, Molecular/Microbiology

## Related Minors:

none

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.

Courses taken at community colleges do not substitute for Upper Division courses.
Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- BSC 2010C \& Lab: may use PCB 2010, PCB 2011, PCB 2021, PCB 2131, BSC 1040, or BSC 2012
- BSC 2011C \& Lab: may use ZOO 2010, BOT 2010, BSC 2041, or BOT 1013. However, subsequent Biology courses require either BSC 2011C or both ZOO 2010 and BOT 2010.
- STA 2023: may use STA 2122, STA 2014C, STA 2023, STA 2024, STA 2321, MAC 2234, MAC 2254, or MAC 3282. However, statistics at or above the level of STA 2023 is required in the major and still must be taken.
- MAC 2311: may use MAC 2233, MAC 2253 or MAC 2281
- PHY 2048 \& 2049: Although Common Program Prerequisites permit substituting Organic Chemistry for Physics, both Physics and Organic Chemistry must be taken as part of the Biology degree requirements.

CARDIOPULMONARY SCIENCES (B.S.)

## College of Health and Public Affairs

HPA II 210; 407-823-2214
Undergraduate Program Director: L. Timothy Worrell
E-mail: worrell@ pegasus.cc.ucf.edu
Web Address: http://www.cohpa.ucf.edu/health.pro/

## Admission Requirements - LIMITED ACCESS

Acceptance to the university does not necessarily constitute admission to the upper division cardiopulmonary sciences program.

- SEPARATE APPLICATION to the limited access program must be made directly to the program prior to February 1 of the year admission is sought
- UCF application must also be submitted by the program deadline of February 1st
- A personal interview is also required
- Student must complete all general education, foreign language admissions, and program prerequisites by the end of Spring Semester before starting program
- All applicants must have a minimum overall GPA of 2.5, and complete all program prerequisite courses with at least a grade of "C". (No CLEP, TSD, or AP credit may be used for prerequisite courses.)
- A one page statement of intent for entry into the profession must be included with the program application

Applicants are required to have completed a basic life support (CPR) program prior to admission to the program

This department will continue to accept Associate in Arts (AA) and Associate in Science (AS) transfers, but those students admitted with the AS degree will need to complete the UCF General Education requirements. Students should seek advisement from the program as soon as they declare Cardiopulmonary Sciences as their major so that they are kept abreast of the articulation activity.

Note: 16 community college AA degree transfers and/or UCF undergraduates are admitted each Fall semester for the regular Cardiopulmonary Science program. Registered Respiratory Therapists (RRT's) are admitted each semester on a space available basis and have a separate application process.

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog

Students should complete the General Education Program, Foreign Language Admissions, and the Common Program Prerequisites Requirements before transferring within the Florida Public University/Community College System

- Student should consult with a departmental advisor
- The courses designated in sections 1 and 2 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours
- A minimum overall GPA of 2.5 and a minimum grade of "C" (2.0) in prerequisite and major courses is required for admission to, continuation in, and graduation from the Cardiopulmonary Sciences Program

UCF Residency Requirement: 32 hours
The courses designated in sections 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours

1. UCF General Education Program
A. Communication Foundations
B. Cultural Historical Foundations
C. Mathematical Foundations

Select MAC 1105
Select STA 2023
D. Social Foundations
E. Science Foundations

Select BSC 2010C
Select CHM 1032 and lab
(36 hrs)
9 hrs
9 hrs
6 hrs

6 hrs
6 hrs
2. Common Program Prerequisites
MAC 1105 College Algebra GEP
STA 2023 Statistical Methods I GEP

BSC 2010C General Biology GEP
MCB 2005C Microbiology 4 hrs
ZOO 3733C Human Anatomy* 4 hrs
PCB 3703C Human Physiology* 4 hrs
CHM 1032\&L Chemistry for Health Sciences or higher level (with lab)

PHY 2053C College Physics or higher lab 4 hrs (with lab)

* see transfer notes


## 3. Core Requirements

| RET 3026C | Intro. to Respiratory Care | 4 hrs |
| :--- | :--- | :---: |
| RET 3484C | Cardiopulmonary Physiology | 4 hrs |
| HSC 4550 | Pathophysiologic Mechanisms | 3 hrs |
| APB 4651 | Medical Pharmacology I | 2 hrs |
| HSC 3593C | HIV Disease: A Human Concern | 3 hrs |
| RET 4503 | Chest Medicine | 3 hrs |

RET 4244 Life Support Systems 3 hrs

RET 3264C Mechanical Ventilation 3 hrs
APB 4652 Medical Pharmacology II 2 hrs

HSC 4500 Epidemiology 3 hrs
RET 4414C Pulmonary Function Studies 4 hrs
RET 3714 Pediatric Respiratory Care 3 hrs
RET 3874 Clinical Practice I 5 hrs

RET 4284 Cardiopulmonary Diagnostics I 3 hrs

| RET 4715 | Neonatal Medicine | 3 hrs |
| :--- | :--- | :---: |
| RET 4034 | Problems in Patient Management. | 3 hrs |
| RET 3875 | Clinical Practice II | 8 hrs |
| RET 4285 | Cardiopulmonary Diagnostics II | 3 hrs |
| RET 4934 | Selected Topics in Respiratory Care | 2 hrs |
| HSC 4008 | Professional Development | 3 hrs |
| RET 4876 | Clinical Practice III | 8 hrs |

## 4. Upper Division Restricted Electives

## 5. Departmental Exit Requirements

Cardiopulmonary Sciences GPA requirement minimum 2.5 overall required for admission and graduation.

## 6. Electives

none

## 7. Foreign Language Requirements

(0-8 hrs)
Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 8. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
32 semester hours in regular courses completed at UCF

- A maximum of 45 hrs of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Related Programs: Radiologic Sciences, Nursing, Physical Therapy, Health Services Administration, Gerontology Certificate

Related Minors: Health Services Administration, Health Sciences, Molecular Biology \& Microbiology, Biology, Chemistry

## Transfer Notes:

Registered Respiratory Therapist / RRT Transfer-Credit by Examination is available for Registered Respiratory Therapists for 26 credits of course work. Credit will be awarded by the Cardio-pulmonary Sciences faculty when students demonstrate advanced knowledge and competencies beyond the level required for entry into the profession. This knowledge may be demonstrated by successful completion of the two part registry examination given by the National Board for Respiratory Care (NBRC). Only graduates of an accredited institution and program are eligible for the NBRC credentials. Students who successfully complete these requirements will have validated the knowledge and clinical competencies and will be awarded credit in their final semester with grades of "S" recorded in their transcripts.

## Community College Equivalents

College Algebra (MAC 1105) or (higher level) 3
Statistics (STA 2023) or (higher level) 3
College Physics I (PHY 1007/L) or (PHY 3004/L) or higher level with labs 4

General Chemistry with Lab (CHM 1031/L) or (higher level) 4
General Biology with Lab (BSC 1005/L) or (higher level) 4
General Microbiology (MCB 2010C) or (MCB 2005) or
(MCB 2020/L) or (PHA 2751)
Human Anatomy and Physiology I \& II (BSC 2093C and 2094C) or (BSC X085 and X086) replaces Anatomy and

## Tentative Course Schedule for Entering Freshmen

Freshman Year

| Fall | 16 hrs | Spring | 13 hrs |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| ENC 1101 | 3 | ENC 1102 |  |
| CHM 1032 and lab | $3 / 1$ | MCB 2005C | 4 |
| BSC 2010C | 4 | MAC 1105 | 3 |
| PSY 2013 or | 3 | EUH 2000 or HUM 2211 | 3 |
| ANT 2000 or SYG 2000 | or AMH 2010 |  |  |


| Summer | 3 hrs |
| :--- | ---: |
| MAC 1114 | 3 |

Sophomore Year

| Fall | 14 hrs | Spring | 13 hrs |  |
| :--- | :---: | :---: | :---: | :---: |
| PHY 2053C | 4 | PCB 3703C | 4 |  |
| ZOO 3733C | 4 | SPC 1600C | 3 |  |
| EUH 2001 or HUM | 3 | ECO 2013 or POS 2041 | 3 |  |
| 2230 or AMH 2020 |  | One course: ARH 2050 | 3 |  |
| STA 2023 | 3 | ARH 2051, MUL 2010, THE |  |  |


| Summer | $\mathbf{8 ~ h r s}$ |
| :--- | ---: |
| (Foreign Lang I) | 4 |

(Foreign Lang II)
Junior Year

| Fall | 16 hrs | Spring | 14 hrs |
| :--- | ---: | :---: | ---: |
| RET 3026C | 4 | RET 4503 | 3 |
| RET 3484C | 4 | RET 4244 | 3 |
| HSC 4550 | 3 | RET 3714 | 3 |
| APB 4651 | 2 | APB 4652 | 2 |
| HSC 3593C | 3 | HSC 4500 | 3 |
| Summer | $\mathbf{1 2 ~ h r s ~}$ |  |  |
| RET 4414C | 4 |  |  |
| RET 3264C | 3 |  |  |
| RET 3874 | 5 |  |  |
|  |  |  |  |
| Senior Year |  |  |  |
| Fall | $\mathbf{1 7 ~ h r s ~}$ |  |  |
| RET 4284 | 3 | Rpring |  |
| RET 3875 | 8 | RET 4876 |  |
| RET 4715 | 3 | RET 4934 | 8 |
| RET 4034 | 3 | HSC 4008 | 2 |

[^4]
## Accreditation

Upon completion of the undergraduate program, the baccalaureate individual will possess basic and advanced level skills and should be prepared to assume future leadership roles within the profession. Graduates will be prepared to become Registered Respiratory Therapists through licensure by the State of Florida.

The Cardiopulmonary Sciences program is accredited by the Committee on Accreditation for Respiratory Care in conjunction with CAAHEP of the American Medical Association.

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Orlando, Florida
(407) 823-2000

## CHEMISTRY (B.S.)

## College of Arts and Sciences

Chemistry Department, CH 117, 407-823-2246
http://www.cas.ucf.edu/chemistry
E-mail: chemistry@ucf.edu
B. Madsen, 407-823-2230

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Co-op or internship credit can not be used in the major
- Students should consult with a departmental advisor

Departmental Residency Requirement consists of at least 24 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Chemistry

- Courses designated in 1 (General Education) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 2311 Calculus
Prefer STA 1060C Statistics Using Excel
(39 hrs)
9 hrs
9 hrs

4 hrs
3 hrs

| 2. Common Program Prerequisites | (22 hrs) |  |
| :--- | :--- | :---: |
| CHM 2045C* | Chem Fund I | 4 hrs |
| CHM 2046 \& L Chem Fund II with lab | 4 hrs |  |
| CHM 2210 | Organic Chem. I | 3 hrs |
| CHM 2211 | Organic Chem. II | 3 hrs |
| MAC 2311* | Calculus w/ Anal Geometry I | GEP |
| MAC 2312* | Calculus w/ Anal Geometry II | 4 hrs |
| PHY 2048 \& L* Physics Engr. \& Sci. I \& Lab | GEP |  |
| PHY 2049 \& L* Physics Engr. \& Sci. II \& Lab | 4 hrs |  |
| *See Transfer Notes for possible substitutes |  |  |

## 3. Core requirements

MAC 2313* Calculus w/ Anal Geometry III
4 hrs
CHM 2211L Organic Lab Techniques I 2 hrs
CHM 3212L Organic Lab Techniques II 2 hrs
CHM 3120C Analytical Chemistry 5 hrs
CHM $3410 \quad$ Physical Chemistry I 4 hrs

CHM 3411 Physical Chemistry II 3 hrs
CHM 3411L Physical Chemistry Lab 2 hrs
CHM 4610 Inorganic Chemistry 3 hrs
CHM 4610L Inorganic Chemistry Lab 2 hrs
CHM 4130C Adv Analytical Lab Technique 4 hrs

| CHM 4912 | Undergraduate Research | 4 hrs |
| :--- | :--- | :---: |
| CHM 4930 | Chemistry Seminar | 1 hr |
| BCH 4053 | Biochemistry I | 3 hrs |
| BSC 2010C | General Biology | GEP |
| Select one of the following | GEP |  |
| STA 1060C | Statistics Using Excel |  |
| STA 2023 | Statistical Methods I |  |
| CGS 1060C | Intro to Computer Science |  |
| * See Transfer Notes for possible substitutes |  |  |
|  |  |  |
| 4. Upper Division Restricted Electives |  |  |
| BCH 4054 | Biochemistry II |  |
| CHM 5225 | Advanced Organic Chem I | 3 hrs |
| CHM 4220 | Organic Chem III | 3 hrs |
| CHM 5235 | Applied Molec Spectroscopy | 3 hrs |
| CHM 5580 | Advanced Physical Chem | 3 hrs |
| CHM 5450 | Polymer Chemistry | 3 hrs |
| CHM 5451C | Techniques in Polymer Chemistry | 3 hrs |
| CHS 4200 | Concepts in Industrial Chem | 3 hrs |
| CHM 4615 | Environmental Chem | 3 hrs |

## 5. Directed Elective

(3 hrs)
Course will be selected with the aid of a departmental advisor and approved in advance by the department chair. Course will be selected from the physical, biological, mathematical sciences and/or related disciplines and normally will be at the 3000/4000 level. Co-op courses can not be used in the major.

## 6. Departmental Exit Requirements

Complete a minimum of 24 Chemistry credits at UCF

Achieve at least a "C" GPA (2.0) in all UCF Chemistry courses and an overall 2.0 GPA in all Chemistry courses used to satisfy this requirement

- Grades earned in CHM 4930 and CHM 4912 will not be applied in the determination of the Chemistry GPA
- Students are required to take a nationally normed test in chemistry during their last semester. The exam will be given in the Fall and Spring semesters. Students who plan to graduate in the Summer must take the exam in the Spring. The student must achieve a satisfactory score on the exam.
- Computer Competency met by STA 1060C, a computer science course, or by departmental assessment
- The last 30 credit hours of regularly scheduled courses that satisfy degree requirements must be taken in Residence at UCF


## 7. Foreign Language Requirements

(0-8 hrs)
Admission: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

## Graduation:

## none

## 8. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed.
Note: Chemistry majors may count MAC 2313, CHM 2211, and PHY 2049 as upper division credit.
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Related Programs: Forensic Science, Molecular and Micro-biology, Science Education

Related Minors: Chemistry, Molecular and Microbiology

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- CHM 2045C*: may use CHM 1040 plus CHM 1041

PHY 2048 \& Lab: may use PHY 2053C
PHY 2049* \& Lab: may use PHY 2054C

- Physics: Program admission requirements may permit substitution by Organic Chemistry (CHM $2210 \& 2211$ ). However, both Physics courses and Organic Chemistry classes are required for graduation.
* PHY 2048 \& Lab and PHY 2049 \& Lab are prerequisite courses for subsequent chemistry courses and will still have to be taken.
* The sequence MAC 2281, 2282, 2283 can be substituted for MAC 2311, 2312, 2313.
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FILM - CINEMA STUDIES TRACK (B.A.)

College of Arts and Sciences
Department of Film, COM 121, 407-823-3456
http://www.cas.ucf.edu/film
E-mail: film@ucf.edu
Sterling Van Wagenen, Director

## Admission Requirements

Applications to major in the Cinema Studies track are required
by January 15th for admission to the subsequent Fall term.
Attain an overall minimum 2.5 GPA based on a minimum of 36 semester hours of college work before applying.

Submission of a written essay.

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
Students are required to earn a grade of "B" (3.0) in all courses used in the major

- Co-op or internship credit can not be used in this major

Students should consult with a departmental advisor

- Departmental Residency Requirement consists of at least 24 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department Film program.
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program

| A. Communication Foundations | 9 hrs |
| :--- | :---: |
| B. Cultural and Historical Foundations | 9 hrs |
| C. Mathematical Foundations |  |
| Select MGF 1106 Finite Mathematics | 3 hrs |
| (may substitute a higher level math) |  |
| Prefer CGS 1060C Intro to Computer Sci or | 3 hrs |
| STA 1060C Statistics Using Excel |  |
| D. Social Foundations | 6 hrs |
| E. Science Foundations | 6 hrs |

2. Common Program Prerequisites

FIL 2400* History of the Motion Pictures
FIL 3102* Writing for Film and TV
*see Transfer Notes for possible substitutes

## 3. Core Requirements

FIL 3006 Art of the Cinema
FIL 3252C Cinematic Expression 3 hrs
FIL $3300 \quad$ Film Documentary 3 hrs
FIL $3410 \quad$ History of Animated Films 3 hrs
FIL 3503 Film Theory and Criticism I 3 hrs
FIL 3507 Film Theory and Criticism II 3 hrs
FIL 3401 Film History to 19453 hrs
FIL 3402 Film History from 1945 to Present 3 hrs
FIL 3XXX American Cinema 3 hrs
FIL 4504 Motion Picture Genre/Aesthetics 3 hrs
FIL 4604 The Film Producer 3 hrs

## 4. Restricted Upper Division Electives

Select from the following upper level FIL courses:
FIL 3520 Italian Film
FIL $3521 \quad$ French Film
FIL 3522 German Film
FIL $3412 \quad$ Black Cinema
FIL $3309 \quad$ Women in Film
FIL 4906 Independent Study
(a maximum of 3 hours Independent Study may be used)

## 5. Departmental Exit Requirements

- A student must earn a grade of "B" (3.0) in all Film courses used in the Film major.
- Computer Competency met by FIL 3106C.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement.
Graduation: One year college level or equivalent proficiency exam.

## 7. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Animation, Art, Creative Writing, Film, Music, Theatre, Radio/TV

## Related Minors: Art, Cinema Studies, Creative Writing, Music, Theatre <br> Transfer Notes:

- Grades below "B" (3.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information

Acceptable Substitutes for common program prerequisites:

- FIL 2400*: may substitute FIL 3401 Film History to 1945, and FIL 3402 Film History 1945 to Present.

FIL 3102*: may substitute CRW 3410 Writing Scripts or equivalent lower level script writing course.

CIVIL ENGINEERING (B.S.C.E.)

College of Engineering and Computer Science
Civil \& Environmental Engineering Department (CEE),
EB II 211, 407-823 2841, Fax: 407-823-3315,
Home Page http://www.cee.engr.ucf.edu
Manoj Chopra, E-Mail: chopra@mail.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes engineering academic advisement and registration for first-semester UCF classes.

## Degree Requirements

Each engineering student is assigned a qualified engineering academic advisor in the department of his/her major. Each student should seek academic advisement before registering for classes each semester to minimize excess hours and to ensure that satisfactory academic progress is being maintained.

## 1. UCF General Education Program for Engineering

## Students

 (38 hrs)The UCF General Education Program (GEP) is described in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from within the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations
9 hrs

1. Take ENC 1101
2. Take ENC 1102
3. Prefer SPC 1016
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations 7 hrs
4. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
5. Take STA 3032 ( 3 hrs ). Note: Calculus II is the prerequisite for this course.
D. Social Foundations

6 hrs

1. Take ECO 2013 or ECO 2023.
2. Take ANT 2000, PSY 2013, or SYG 2000.
E. Science Foundations

7 hrs

1. Take PHY 2048/48L.
2. Take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

(19 hrs)
These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements, as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHM 2045/45L Chemistry Fundamentals I with Lab 4 hrs
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)
MAC 2283 Calculus for Scientists \& Engineers III 4 hrs
(MAC 2313 will substitute)
MAP 2302 Differential Equations ..... 3 hrs
PHY 2048/48L Physics for Engineers \& Scientists IPHY 2049/49L Physics for Engineers \& Scientists II4 hrs
ENC 1101 Composition I ..... GEP
ENC 1102 Composition II ..... GEP
Humanities Courses ..... GEP
Social Science Courses ..... GEP
Humanities or Social Sciences ..... GEP

## 3. Courses Required for the Major

 ( 62 hrs )The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.25 GPA in completing these courses, together with the technical elective courses listed in 4. below and with the senior design courses listed in $\mathbf{5}$. below. Independent study courses generally do not satisfy major requirements and normally are awarded grades of I, S, or U.

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1930 ST: Engineering Concepts \& Methods 1 hr
CHM 2046 Chemistry Fundamentals II 3 hrs
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics 3 hrs
EGN 3331 Mechanics of Materials 3 hrs
EGN 3343 Thermodynamics 3 hrs
EGN 3365 Structure \& Properties of Materials 3 hrs
EGN 3930 ST: Principles of Electrical Engnring 3 hrs
EGN 3613 Engineering Economic Analysis 2 hrs
CCE 4003 Intro to the Construction Industry 3 hrs
ENV 3001 Intro to Environmental Engineering 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
CEG 4101C Geotechnical Engineering I 4 hrs
CES $4100 \quad$ Structural Analysis I 3 hrsHydrology3 hrs
CWR 4203C HydraulicsENV 4561 Environment Engrng-Process Design 4 hrs
SUR 2101C Surveying ..... 3 hrs
TTE 4004 Transportation Engineering 4 hrs

## 4. Approved Technical Electives

(3 hrs)
Technical electives are available in the BSCE program to address specific student interests in a variety of technical areas. Students should consult with their assigned academic advisor for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 5. Departmental Graduation Requirements

- Approved CE Project Design Course I

Approved CE Project Design Course II
(6 hrs)
3 hrs
3 hrs

- Civil engineering students must take the Engineering Intern Exam during their Senior year.
- Earn a minimum graduating GPA of 2.25 in each of the following areas: the Engineering Core and in the Civil Engineering Option, which includes the major courses from 3. above and the approved CE project design courses.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 7. University Minimum Graduation Requirements

A 2.0 UCF GPA.

60 semester hours earned after any CLEP award.
48 semester hours of upper division credit completed.
32 semester hours of regular courses completed at UCF.
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted.

Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable).

## Total Semester Hours Required:

 128 hrsRelated Programs: Environmental Engineering, Mathematics.

Related Minors: Mathematics.

## Transfer Notes:

- Courses taken from Community Colleges do not substitute for Upper Division Courses
- Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information with his/her petition for this evaluation.


## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Civil Engineering - 128 semester hours required

## FIRST YEAR

| Fall 14 hrs $\mathbf{1 , 2}$ | Spring | 15 hrs $\mathbf{1 , 2}$ |  |
| :--- | :--- | :--- | :--- |
| *ENC 1101 English Comp I | 3 | *ENC 1102 English Comp II | 3 |
| *MAC 2281 Calc Sci \& Eng I | 4 | *MAC 2282 Calc Sci \& Eng II | 4 |
| *SPC 1016 Tech Presentations | 3 | *PHY 2048/L Phys Engr I w/lab | 4 |

*ECO 2013 or
ECO 2023 Econ
EGN 1006 Intro T
SECOND YEAR

| Fall $16 \mathrm{hrs}^{1}$ | Sprin | ng $\quad 16 \mathrm{hrs}^{1}$ |  |
| :---: | :---: | :---: | :---: |
| *MAC 2283 Calc Sci \& Eng III | 4 * | *MAP 2302 Diff Equations | 3 |
| *CHM 2045/L Chem Funds I | 4 * | *CHM 2046 Chemistry Funds II | 3 |
| *HUM/AMH/EUH - I | 3 *P | *PHY 2049/L Phys Eng II w/lab | 4 |
| EGN 3310 Engr Anal - Statics | 3 * | *HUM/AMH/EUH - II | 3 |
| EGN 3613 Eng Econ Anal | 2 EG | EGN 3321 Engr Anal-Dynamic | 3 |
| Summer $9 \mathbf{~ h r s ~}{ }^{1}$ |  |  |  |
| *SUR 2101C Surveying | 3 |  |  |
| EGN 3331 Mech of Materials | 3 |  |  |
| ENV 3001 Intro to Environ Eng | 3 |  |  |

## THIRD YEAR

Fall $\quad 15 \mathrm{hrs}$ Spring 15 hrs $^{1}$

CWR 3201 Eng Fluid Mechanics3 CWR 4101C Hydrology3
CCE 4003 Intro to Const Indus 3 CWR 4203C Hydraulics ..... 3
EGN 3343 Thermodynamics 3 EGN 3930 ST: Prin Elec Eng ..... 3
CES 4100 Structural Analysis I 3 *Cultural/Historical Elective ..... 3
STA 3032 Prob/Stats for Engrs 3 *ANT/PSY/SYG or ..... 3
*GEO/GLY/BSC
FOURTH YEAR
Fall 15 hrs Spring 13 hrs
TTE 4004 Transportation Eng ..... 4 Approved Project Design Course 3
ENV 4561 Env Eng-Proc Desgn 4 Approved Project Design Course 3

CEG 4101C Geotechnical Engr
CES 4605 Structrl Steel Design or Technical Elective

CES 4130L Structural Lab

CES 4702 Strctrl Concrete Dsgn 3
or Technical Elective
EGN 3365 Str. \& Prop Matls 3

## Footnotes:

1. Courses marked with an asterisk (*) are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.
2. EGN 1006 and EGN 1930 are required courses for incoming freshmen only. The credits for these two courses (one hour each) may, with prior approval of the department academic advisor, be moved to the area 4. Approved Technical Electives.
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CIVIL ENGINEERING - CONSTRUCTION ENGINEERING CONCENTRATION (B.S.C.E.)

College of Engineering and Computer Science
Civil \& Environmental Engineering Department (CEE),
EB II 211, 407-823 2841, Fax: 407-823-3315,
Home Page: http://www.cee.engr.ucf.edu
Manoj Chopra, E-Mail: chopra@mail.ucf.edu
Coordinator: Amr A. Oloufa, E-mail: aoloufa@mail.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes engineering academic advisement and registration for first-semester UCF classes.

## Degree Requirements

- Each engineering student is assigned a qualified engineering academic advisor in the department of his/her major. Each student should seek academic advisement before registering for
classes each semester to minimize excess hours and to ensure
that satisfactory academic progress is being maintained.


## 1. UCF General Education Program for Engineering

Students
(38 hrs)
The UCF General Education Program (GEP) is described in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from within the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations 9 hrs

1. Take ENC 1101
2. Take ENC 1102
3. Prefer SPC 1016
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations 7 hrs
4. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
5. Take STA 3032 ( 3 hrs ). Note: Calculus II is the prerequisite for this course.
D. Social Foundations

6 hrs

1. Take ECO 2013 or ECO 2023.
2. Take ANT 2000, PSY 2013, or SYG 2000.

## E. Science Foundations

7 hrs

1. Take PHY 2048/48L.
2. Take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

(19 hrs)
These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements, as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHM 2045/45L Chemistry Fundamentals I with Lab 4 hrs
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)

MAP 2302 Differential Equations 3 hrs
PHY 2048/48L Physics for Engineers \& Scientists I GEP
PHY 2049/49L Physics for Engineers \& Scientists II 4 hrs
ENC 1101 Composition I GEP
ENC 1102 Composition II GEP
Humanities Courses GEP
Social Science Courses GEP
Humanities or Social Sciences
GEP

## 3. Courses Required for the Major

(64 hrs)
The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.25 GPA in completing these courses, together with the technical elective courses listed in 4. below and with the senior design courses listed in $\mathbf{5}$. below. Independent study courses generally do not satisfy major requirements and normally are awarded grades of I, S, or U.

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1930 ST: Engineering Concepts \& Methods 1 hr
CHM 2046 Chemistry Fundamentals II 3 hrs
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics 3 hrs
EGN 3331 Mechanics of Materials 3 hrs
EGN 3613 Engineering Economic Analysis 2 hrs
ENV 3001 Intro to Environmental Engineering 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
CCE 4813 Mech \& Elec Systems for Buildings 4 hrs
CCE 4402 Construction Equip \& Productivity 3 hrs
CCE 4XXX Constr Materials or 3 hrs
EGN 3365 Struc \& Prop of Materials

| CCE 4004 | Construction Methods | 3 hrs |
| :--- | :--- | :---: |
| CCE 4034 | Construction Estimating \& Scheduling | 3 hrs |
| CCE 4003 | Intro to the Construction Industry | 3 hrs |
| CEG 4101C | Geotechnical Engineering I | 4 hrs |
| CES 4100 | Structural Analysis I | 3 hrs |
| CES 4702 | Reinforced Concrete Structures | 3 hrs |
| CWR 3201 | Engineering Fluid Mechanics | 3 hrs |
| MAN 3301 | Human Resource Management or | 3 hrs |
| MAN 4240 | Organizational Theory \& Behavior |  |
| ACG 2071 | Managerial Accounting | 3 hrs |
| SUR 2101C | Surveying | 3 hrs |
| TTE 4004 | Transportation Engineering | 4 hrs |

## 4. Approved Technical Electives

Technical electives are available in the BSCE program to address specific student interests in a variety of technical areas. Students should consult with their assigned academic advisor for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 5. Departmental Graduation Requirements

(4 hrs)

- CEE 4XXX Construction Engr. Design Project 4 hrs

Civil engineering students must take the Engineering Intern Exam during their Senior year.

- Earn a graduating GPA of 2.25 in each of the following areas: the Engineering Core and in the Civil Engineering Option, which includes the major courses from 3. above and the approved CE project design courses.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 7. University Minimum Graduation Requirements

A 2.0 UCF GPA.
60 semester hours earned after any CLEP award.
48 semester hours of upper division credit completed.
32 semester hours of regular courses completed at UCF.

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted.
- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable).

Total Semester Hours Required: 128 hrs

Related Programs: Environmental Engineering, Mathematics.

Related Minors: Mathematics.

## Transfer Notes:

Courses taken from Community Colleges do not substitute for Upper Division Courses
Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information with his/her petition for this evaluation.

## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All
engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Civil Engineering - Construction Engineering Option

## 128 semester hours required

## FIRST YEAR

| Fall 14 hrs $\mathbf{1 , 2}$ | Spring | 15 hrs 1,2 |  |
| :--- | :--- | :--- | :--- |
| *ENC 1101 English Comp I | 3 | *ENC 1102 English Comp II | 3 |
| *MAC 2281 Calc Sci \& Eng I ${ }^{2}$ | 4 | *MAC 2282 Calc Sci \& Eng II ${ }^{2}$ | 4 |
| *SPC 1016 Tech Presentations | 3 | *PHY 2048/L Phys Engr I w/lab | 4 |
| *ECO 2013 Economics I | 3 | *ANT/PSY/SYG or | 3 |
| or ECO 3023 Economics II | *GEO GLY/BSC |  |  |
| EGN 1006 Intro To Eng Prof | 1 | EGN 1930 ST Eng Con \& Meth | 1 |

## SECOND YEAR

Fall 16 hrs $^{1} \quad$ Spring $\quad 16$ hrs $^{1}$
*MAC 2283 Calc Sci \& Eng III ${ }^{2} 4$ *MAP 2302 Diff Equations 3
$\begin{array}{lllll}\text { *CHM 2045/L Chem Funds I } & 4 & \text { *CHM 2046 Chemistry Funds II } & 3 \\ \text { *HUM/AMH/EUH - I } & 3 & \text { *PHY 2049/L Phys Eng II w/lab } & 4\end{array}$
EGN 3310 Engr Anal - Statics 3 *HUM/AMH/EUH - II 3
EGN 3613 Eng Econ Anal
Summer 9 hrs $^{1}$
*SUR 3101C Surveying 3
STA 3032 Prob/Stats Engineers 3
ENV 3001 Intro to Environ Eng 3

## THIRD YEAR

Fall $\quad 15$ hrs $^{1} \quad$ Spring $\quad 15$ hrs $^{1}$

EGN 3321 Engr Anal-Dynamics 3 ACG 2071 Accounting 3
2 EGN 3331 Mech of Materials 3

CCE 4003 Intro Constr. Industry 3 CES 4702 Concrete Structures 3
CES 4100 Structural Analysis I 3 CCE 4004 Construct Methods 3
$\begin{array}{lrl}* \text { ANT/PSY/SYG or } & 3 & \text { *Cultural/Historical Elective }\end{array} 3 \begin{array}{ll}* \mathrm{GEO} / \mathrm{GLY} / \mathrm{BSC} & \text { CWR 3201 Eng Fluid Mechanics }\end{array}$33

MAN 4240 Organ Theory \& Beh

## FOURTH YEAR

| Fall $\quad 15$ hrs | Spring | $\mathbf{1 3}$ hrs |  |
| :--- | :---: | :---: | :---: |
| TTE 4004 Transportation Eng | 4 | CCE 4XXX Constr DesignProject | 4 |
| CCE 4034 Construc Est \& Sched | 3 | CCE 4402 Constr Equip \& Prod | 3 |
| CEG 4101C Geotechnical Engr | 4 | CCE 4XXX Constr Materials or | 3 |
| CCE 4813 Mech \& Elec Bldgs | 4 | EGN 3365 Struc \& Prop of Mat |  |
| Technical Elective | 3 |  |  |

## Notes:

1 Courses marked with an asterisk $(*)$ are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.

2 EGN 1006 and EGN 1930 are required courses for incoming freshmen only. The credits for these two courses (one hour each) may, with prior approval of the department academic advisor, be moved to the area 4. Approved Technical Electives.

COMMUNICATIVE DISORDERS (B.A., B.S.)

## College of Health and Public Affairs

HPA II 101
Chair: R. Jane Lieberman, Phone: 407-249-4798 Ext 108
Undergraduate Coordinator: Alex Brice
Phone: (407)249-4798 Ext 104, E-mail: brice@ pegasus.cc.ucf.edu
Web Address: http://www.cohpa.ucf.edu/comdis/

## Admission Requirements <br> none

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog
Students should complete the General Education Program before transferring within the Florida Public University/ Community College System

- Students must attend an orientation and consult with a departmental advisor
- The courses designated in section 1 below may be taken at a Florida Community College, and usually should be completed in the first 60 hours
- Students must earn at least a "C" (2.0) in each required course and restricted elective
- The courses designated in section 1 (General Education) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
(CGS 1060C, STA 2023)
D. Social Foundations 6 hrs

Select PSY 2013 Gen Psy
Select one of the listed choices
(ECO 2013, ECO 2023, POS 2041)
E. Science Foundations

6 hrs
Select BSC 2010C Gen Bio

| 2. Common Program Prerequisites | none |  |
| :--- | :--- | ---: |
| 3. Core Requirements | (58 hrs) |  |
| DEP 2004 | Developmental Psychology | 3 hrs |
| SPA 3002 | Introduction to Communicative | 3 hrs |

Disorders
SPA $3101 \quad$ Physiological Bases of Speech 3 hrs and Hearing
SPA $3112 \quad$ Basic Phonetics 3 hrs
SPA 3112L Basic Phonetics Lab 1 hr
LIN 3XXX Language Development: Birth-8yrs 3 hrs
SPA 3XXX Speech Science I: Speech Production 3 hrs
SPA 3XXXL Speech Production Lab 1 hr
LIN 3XXX Language Development: 9-18yrs 3 hrs
SPA 3XXX Neural Bases of Communication 3 hrs
SPA 3XXX Speech Science II: Speech Perception 3 hrs
SPA 3XXXL Speech Perception Lab 1 hr
SPA $4201 \quad$ Articulation/Phonological Disorders 3 hrs

| SPA 4032 | Audiology | 3 hrs |
| :---: | :---: | :---: |
| SPA 4XXX | Language Analysis | 3 hrs |
| SPA 4XXXL | Language Analysis Lab | 1 hr |
| SPA 4402 | Language Disorders Across Lifespan | 3 hrs |
| SPA 4321 | Aural Habilitation-Rehabilitation | 3 hrs |
| EAB 3703 | Principles of Behavior Management | 3 hrs |
| or |  |  |
| EEC 4603 | Guidance of Young Children | 3 hrs |
| or |  |  |
| EEX 4601 | Introduction to Behavior Management | 3 hrs |
| SPA 4XXX | Clinical Methods | 3 hrs |
| SPA 4XXX | Clinical Observation (taken Fall or |  |
| Spring of Senior Year) |  |  |
| SPA 4XXX | Clinical Practice: Participant |  |
| Observation | 3 hrs |  |
| 4. Statistics Requirement |  | (6 hrs) |
| STA 2023 | Statistical Methods I | GEP |
| STA 4163 | Statistical Methods II | 3 hrs |
| or |  |  |
| HSA 4701 | Introduction to Research in the | 6 hrs |
| Health Profession |  |  |

## 5. Upper Division Restricted Electives

An additional six credit hours of upper division course work in Communicative Disorders selected in consultation with the academic advisor.

## 6. Departmental Exit Requirements

Students must achieve a minimum grade of "C" (2.0) in all required courses and restricted electives in

## 7. Electives

## ( 6 hrs min )

B.A./B.S. Option.

- Students pursuing the B.A. degree must demonstrate proficiency in a foreign language equivalent to one year in college
- Students pursuing the B.S. degree must complete two health science courses (six credit hours) approved by the Department.


## 8. Foreign Language Requirements

Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation. ASL (American Sign Language) can only be used for restricted electives or foreign language admission requirement. It does not satisfy B.A. language requirement.

Graduation: Students pursuing the B.A. degree must demonstrate proficiency in a foreign language equivalent to one year.

## 9. University Minimum Exit Requirements

(120 hrs)
A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted

Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: Health Services Administration, Physical Therapy, Psychology, Social Work, Special Education

Related Minors: Exceptional Education, Gerontology, Health Services Administration, Interpersonal Communication, Linguistics, Psychology

## Transfer Notes:

"D" (1.0) grades from other institutions do not meet departmental requirements
Courses taken at community colleges do not substitute for Upper Division courses
Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Students may take STA 2023 to fulfill the first part of the statistics requirement (STA 2014C will not satisfy this requirement)

## Honors

Honors Option Requires:
Completion of a 3 credit directed readings course
Completion of a 3 credit thesis course
Open to students with a minimum 3.5 GPA in Communicative Disorders

- Minimum cumulative UCF 3.2 GPA
- Completion of 60 semester hours of college credit, including 12 graded upper division hours at UCF


## Tentative Course Schedule for Entering Freshmen

## Freshman Year*

Fall
ENC 1101
PSY 2013
BSC 2010C
One Course: ARH 2050,

## 13 hrs

3

3 or POS 2041

## 15 hrs

3

THE 1020, REL 2300, PHI 2010, LIT 2110, LIT 2120
or AMH 2010
DEP 2004 3
*Plan your required nine summer hours into your course of study

## Sophomore Year

| Fall $\quad \mathbf{1 2 / 1 3} \mathbf{~ h r s ~}$ | Spring | $\mathbf{1 5} / \mathbf{1 6} \mathbf{~ h r s ~}$ |  |
| :--- | :---: | :---: | :---: |
| SPC 1600C | 3 | SPA 3002 | 3 |
| EUH 2001 or HUM 2230 | 3 | Restricted Elective | 3 |
| or AMH 2020 |  | EAB 3703 or EEC 4603 | 3 |
| MGF 1106 or MAC 1105 | 3 | or EEX 4601 |  |
| Foreign Lang. I (B.A.) | $3 / 4$ | Elective | 3 |
| or Health Science (B.S.) |  | Foreign Lang II (B.A.) | $3 / 4$ |

Summer $\quad 10 \mathrm{hrs}$
SPA 31123
SPA 3112L 1
HSA 4701** 6
**If Gen. Ed. has not been met, take:
STA 20233
STA 4163
Junior Year
Fall $13 \mathrm{hrs} \quad$ Spring 16 hrs
SPA 3xxx Lang Dev B-8yrs
SPA 3xxx Speech Production
SPA 3xxxL Speech Prod Lab
SPA 3101
Elective

3
3 SPA 3xxx Lng Dev 9-18 3
3 SPA 3xxx Speech Percept 3
1 SPA 3xxxLSpch Perc Lab 1
3

SPA $4201 \quad 3$
SPA 3xxx Neural Bases 3

## Senior Year

| Fall | 16 hrs | Spring | $\mathbf{1 2 ~ h r s ~}$ |
| :--- | ---: | :---: | :---: |
|  |  | 3 |  |
| SPA 4032 | 3 | SPA 4321 | 3 |
| SPA 4402 | 3 | SPA 4xxx Clinic Practice | 3 |
| SPA 4xxx Language Analysis | 3 | Elective | 3 |
| SPA 4xxxL Lang Analysis Lab | 1 | Elective | 3 |
| SPA 4xxx Clinical Methods | 3 |  |  |
| SPA 4xxx Clinical Observation | 3 |  |  |

## Minor:

The Department of Communicative Disorders offers a minor consisting of a minimum of 25 semester hours. Required courses: SPA 3002, LIN 3XXX (Language Development: Birth Through 8 Years), SPA 3101, SPA 3112, SPA 3112L, SPA 4032, SPA 4201 and SPA 4402.

## Licensed Speech Language and Audiology Assistant:

This state license may be obtained by completing the minor plus one additional course as recommended by the academic advisor.

## Note:

Certification in speech-language pathology by the American Speech-Language-Hearing Association and licensure by the State of Florida Department of Health, Division of Medical Quality Assurance requires a master's degree in communicative disorders. Minimum requirements for entry into the graduate program typically include at least a 3.0 GPA in the last 60 hours of undergraduate work in the major. Entry level positions to provide speech and language services are available in some Florida school districts. Under the $2 / 5$ Rule, individuals employed in these positions have two years from the date of employment to enroll in a master's program in communicative disorders and five years to complete the degree.

COMPUTER ENGINEERING (B.S.Cp.E.)

# College of Engineering and Computer Science <br> School of Electrical Engineering and Computer Science 

ENGR 407C, 407-823-2786, Fax: 407-823-5835,
Home Page http://www.ece.engr.ucf.edu
C. S. Bauer Jr., E-Mail: bauer@mail.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes engineering academic advisement and registration for first-semester UCF classes.

## Degree Requirements

Each engineering student is assigned a qualified engineering academic advisor in the department of his/her major. Each student should seek academic advisement before registering for classes each semester to minimize excess hours and to ensure that satisfactory academic progress is being maintained.

## 1. UCF General Education Program for Engineering

## Students

 (38 hrs)The UCF General Education Program (GEP) is described in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from within the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations
9 hrs

1. Take ENC 1101
2. Take ENC 1102
3. Prefer SPC 1016
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations 7 hrs
4. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
5. Take STA 3032 ( 3 hrs ). Note: Calculus II is the prerequisite for this course.
D. Social Foundations

6 hrs

1. Take ECO 2013 or ECO 2023.
2. Take ANT 2000, PSY 2013, or SYG 2000.
E. Science Foundations

7 hrs

1. Take PHY 2048/2048L.
2. Take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

(19 hrs)
These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements, as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHS 1440 Fundamentals of Chemistry for Eng 4 hrs
(CHM 2045/45L will substitute)
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)
MAC 2283 Calculus for Scientists \& Engineers III 4 hrs
(MAC 2313 will substitute)
MAP 2302 Differential Equations 3 hrs
PHY 2048/48L Physics for Engineers \& Scientists I GEP
PHY 2049/49L Physics for Engineers \& Scientists II 4 hrs
ENC 1101 Composition I GEP
ENC 1102 Gomposition II GEP
Humanities Courses
Social Science Courses
Humanities or Social Sciences
GEP

## 3. Courses Required for the Major

( 60 hrs )
The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.25 GPA in completing these courses, together with the technical elective courses listed in 4. below and with the senior design courses listed
in 5. below. Independent study courses generally do not satisfy major requirements and normally are awarded grades of I, S, or U.

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1930 ST: Engineering Concepts \& Methods 1 hr
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics or
EGN 3358 Thermo-Fluids-Heat Transfer 3 hrs
EGN 3373 Principles of Electrical Engineering 4 hrs
EGN 3420 Engineering Analysis 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
PHY 3101 Physics for Engineers \& Scientists II 3 hrs
EEL 3122C Electrical Networks 4 hrs
EEL 3306 Semiconductor Devices I 3 hrs
EEL 3307C Electronics I 4 hrs
EEL 3342C Intro to Digital Circuits \& Systems 3 hrs
EEL 3657 Linear Control Systems 3 hrs

| EEL 3801C | Intro to Computer Engineering | 3 hrs |
| :--- | :--- | :---: |
| EEL 4767C | Computer System Design I | 4 hrs |
| EEL 4768C | Computer System Design II | 4 hrs |
| EEL 4832 | Engrng Application of Comp Methods | 3 hrs |
| EEL 4851C | Engineering Data Structures | 4 hrs |
| EEL 4882 | Engineering System Software | 3 hrs |
| EEL 4884C | Engineering Software Design | 4 hrs |

## 4. Approved Technical Electives

Technical electives are available in the BSCpE program to address specific student interests in a variety of technical areas. Students should consult with their assigned academic advisor for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 5. Departmental Graduation Requirements

EEL 4914 Senior Design I
EEL 4915L Senior Design II
(6 hrs)
3 hrs
3 hrs

- COECS encourages all engineering students to take the Engineering Intern Exam during their Senior year.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 7. University Minimum Graduation Requirements

A 2.0 UCF GPA.
60 semester hours earned after any CLEP award.
48 semester hours of upper division credit completed.
32 semester hours of regular courses completed at UCF.
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and

Armed Forces credits are permitted.

- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable).


## Total Semester Hours Required:

## 128 hrs

Related Programs: Computer Science, Electrical Engineering, Electrical Engineering Technology (Computer Systems Concentration).

Related Minors: Applied Computer Science, Computer Science.

## Transfer Notes:

- Courses taken from Community Colleges do not substitute for Upper Division Courses

Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information with his/her petition for this evaluation.

## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

Computer Engineering - $\mathbf{1 2 8}$ semester hours required FIRST YEAR
Fall $14 \mathbf{h r s}^{1,3}$ Spring 12 hrs ${ }^{1,3}$
*Cult \& Hist Foundations 1a 3 *ENC 1102 English Comp II 3
*ENC 1101 English Comp I
*SPC 1016 Tech Presentations
EGN 1006 Intro to Engr
*MAC 2281 Calc Sci \& Eng I

3 ENG 1930 Eng Conc \& Meth 1
3 *MAC 2282 Calc Sci \& Eng II 4
1 *PHY 2048/L Phys for Eng/Sci I 4
4

Summer
10 hrs $^{1}$
*Social Foundations 13
*Science Foundations 23
*MAC 2283 Calc Sci \& Eng III 4

## SECOND YEAR

Fall 17 hrs $^{1}$ Spring 16 hrs ${ }^{1}$
*MAP 2302 Diff Equations 3 EGN 3321 Engr Anal-Dynamics
*PHY 2049 Phys Engr/Sci II 3 or
*PHY 2049L Lab En/Sci II 1 EGN 3358 Ther-Flds-Ht Tran
4 EGN 3373 Prin of Elec Engr 4
3 *PHY 3101 Physics for Engr III 3
3 EEL 3342C Intro Dig Circ/Sys 3
EEL 3801C Intro Cmptr Engr ${ }^{2} 3$

| Summer | 6 hrs $^{1}$ |
| :--- | ---: |
| *ECO 2013 or | 3 |
| ECO 2023 Prin of Econ I, II |  |
| *Cult \& Hist Foundations 1b | 3 |

THIRD YEAR
Fall 14 hrs Spring 14 hrs

EEL 3306 Semicond'r Dev I
EEL 3122C Electrical Nets
EEL 4851C Eng Data Struc
STA 3032 Prob/Stats for Engr

3 EEL 3307C Electronics I 4
4 EEL 3657 Linear Cont Sys 3
4 EEL 4767C Cmp Sys Des'n I 4
3 EEL 4882 Engrng Sys S/W
3

## FOURTH YEAR

Fall
$13 \mathrm{hrs}^{3}$ Spring
12 hrs $^{1}$

| EEL 4768C Cmp Sys Dsgn II | 4 | *Cult \& Hist Foundations 2 | 3 |
| :--- | :---: | :---: | :---: |
| EEL 4884C Engr S/W Dsgn | 4 Approved Technical Elective | 3 |  |
| EEL 4914 Senior Design I | 3 | EEL 4915C Senior Design II | 3 |
| Approved Technical Elective | 2 EEL 4832 Apps Cmptr Mthds | 3 |  |

## Notes:

1. Courses marked with an asterisk (*) are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.
2. Assumes knowledge of a higher level programming language ( C preferred).
3. EGN 1006 and EGN 1930 are required courses for incoming freshmen only. The credits for these two courses (one hour
each) may, with prior approval of the department academic advisor, be moved to the area 4 . Approved Technical Electives.

## Integrated BS/MS Degree Program

The Computer Engineering program offers the Integrated BS/MS degree to students of high academic standing. This program will accept up to six graduate hours for those taking a non-thesis option. They will accept three graduate hours for students completing a thesis option degree. See advisor for appropriate substitutions.

## COMPUTER ENGINEERING - SOFTWARE ENGINEERING CONCENTRATION (B.S.Cp.E.)

## College of Engineering and Computer Science

School of Electrical Engineering and Computer Science,
ENGR 407C, 407-823-2786, Fax: 407-823-5835,

## Home Page http://www.ece.engr.ucf.edu

C. S. Bauer,Jr., E-Mail: bauer@mail.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes engineering academic advisement and registration for first-semester UCF classes.

## Degree Requirements

- Each engineering student is assigned a qualified engineering academic advisor in the department of his/her major. Each student should seek academic advisement before registering for classes each semester to minimize excess hours and to ensure that satisfactory academic progress is being maintained.


## 1. UCF General Education Program for Engineering

Students
(38 hrs)
The UCF General Education Program (GEP) is described in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from within the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations
9 hrs

1. Take ENC 1101
2. Take ENC 1102
3. Prefer SPC 1016
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations 7 hrs
4. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
5. Take STA 3032 ( 3 hrs ). Note: Calculus II is the prerequisite for this course.
D. Social Foundations

6 hrs

1. Take ECO 2013 or ECO 2023.
2. Take ANT 2000, PSY 2013, or SYG 2000.
E. Science Foundations

7 hrs

1. Take PHY 2048/48L.
2. Take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

(19 hrs)
These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements, as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHS 1440 Fundamentals of Chemistry for Eng 4 hrs
(CHM 2045/45L will substitute)
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)
MAC 2283 Calculus for Scientists \& Engineers III 4 hrs
(MAC 2313 will substitute)

| MAP 2302 | Differential Equations | 3 hrs |
| :--- | :--- | :---: |
| PHY 2048/48L | Physics for Engineers \& Scientists I | GEP |
| PHY 2049/49L | Physics for Engineers \& Scientists II | 4 hrs |
| ENC 1101 | Composition I | GEP |
| ENC 1102 | Composition II | GEP |
| Humanities Courses | GEP |  |
| Social Science Courses | GEP |  |

## 3. Courses Required for the Major

The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.25 GPA in completing these courses, together with the technical elective courses listed in 4. below and with the senior design courses listed in $\mathbf{5}$. below. Independent study courses generally do not satisfy major requirements and normally are awarded grades of I, S, or U.

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1930 ST: Engineering Concepts \& Methods 1 hr
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics or
EGN 3358 Thermo-Fluids-Heat Transfer 3 hrs
EGN 3373 Principles of Electrical Engineering 4 hrs
EGN 3420 Engineering Analysis 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
PHY 3101 Physics for Engineers \& Scientists II 3 hrs
EEL 3122C Electrical Networks 4 hrs
EEL 3306 Semiconductor Devices I 3 hrs
EEL 3307C Electronics I 4 hrs
EEL 3342C Intro to Digital Circuits \& Systems 3 hrs
EEL 3657 Linear Control Systems 3 hrs
EEL 3801C Intro to Computer Engineering 3 hrs

| EEL 4767C | Computer System Design I | 4 hrs |
| :--- | :--- | :---: |
| EEL 4768C | Computer System Design II | 4 hrs |
| EEL 4832 | Engrng Application of Comp Methods | 3 hrs |
| EEL 4851C | Engineering Data Structures | 4 hrs |
| EEL 4882 | Engineering System Software | 3 hrs |
| EEL 4884C | Engineering Software Design | 4 hrs |

## 4. Approved Technical Electives

Technical electives are available in the BSCpE program to address specific student interests in a variety of technical areas. For thoses students with a declared interest in Software Engineering, a concentration in this area is available by taking the following technical electives, in addition to the required software engineering courses listed in 3 . above.

EEL 5881 Software Engineering I 3 hrs
EEL 4932 Component Design in Software Engr or
EEL 5771 Engr App's of Computer Graphics 3 hrs
5. Departmental Graduation Requirements

EEL 4914 Senior Design I
EEL 4915L Senior Design II
(6 hrs)
3 hrs
3 hrs

- COECS encourages all engineering students to take the Engineering Intern Exam during their Senior year.


## 6. Foreign Language Requirements <br> (0-8 hrs)

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 7. University Minimum Graduation Requirements

A 2.0 UCF GPA.
60 semester hours earned after any CLEP award.

48 semester hours of upper-division credit completed.
32 semester hours of regular courses completed at UCF.

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted.
- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable).


## Total Semester Hours Required:

## 128 hrs

Related Programs: Computer Science, Electrical Engineering, Electrical Engineering Technology (Computer Systems Concentration).

Related Minors: Applied Computer Science, Computer Science.

## Transfer Notes:

Courses taken from Community Colleges do not substitute for Upper Division Courses
Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information with his/her petition for this evaluation.

## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Computer Engineering - Software Engineering Concentration 128 semester hours required FIRST YEAR

Fall $\quad 14$ hrs $^{\mathbf{1 , 2}}$ Spring 12 hrs $^{\mathbf{1 , 2}}$
*Cult \& Hist Foundations 1a
*ENC 1101 English Comp I
*SPC 1016 Tech Presentations

3 *ENC 1102 English Comp II
3 ENG 1930 Eng Conc \& Meth 1
3 *MAC 2282 Calc Sci \& Eng II

| EGN 1006 Intro to Engr | 1 *PHY 2048/L Phys for Eng/Sci I | 4 |
| :---: | :---: | :---: |
| *MAC 2281 Calc Sci \& Eng I | 4 |  |
| Summer $\quad 10 \mathrm{hrs}^{1}$ |  |  |
| *Social Foundations 1 | 3 |  |
| *Science Foundations 2 | 3 |  |
| *MAC 2283 Calc Sci \& Eng III | 4 |  |
| SECOND YEAR |  |  |
| Fall 17 hrs $^{1}$ | Spring 16 hrs $^{\mathbf{1}}$ |  |
| *MAP 2302 Diff Equations | 3 EGN 3321 Engr Anal-Dynamics |  |
| *PHY 2049 Phys Engr/Sci II | 3 or |  |
| *PHY 2049L Lab En/Sci II | EGN 3358 Ther-Flds-Ht Tran | 3 |
| CHS 1440 Chem for Engr | 4 EGN 3373 Prin of Elec Engr | 4 |
| EGN 3310 Engr Anal-Statics | 3 *PHY 3101 Physics for Engr III | 3 |
| EGN 3420 Eng Analysis ${ }^{2}$ | 3 EEL 3342C Intro Dig Circ/Sys | 3 |
| EEL 3801C Intro Cmptr Engr ${ }^{2}$ | 3 |  |


| Summer | 6 hrs $^{1}$ |
| :--- | ---: |
| *ECO 2013 or | 3 |
| ECO 2023 Prin of Econ I, II |  |
| *Cult \& Hist Foundations 1b | 3 |

## THIRD YEAR

Fall 14 hrs Spring 14 hrs

EEL 3306 Semicond'r Dev I
EEL 3122C Electrical Nets
EEL 4851C Eng Data Struc STA 3032 Prob/Stats for Engr

3 EEL 3307C Electronics I
4 EEL 3657 Linear Cont Sys 3
4 EEL 4767C Cmp Sys Des'n I 4
3 EEL 4882 Engrng Sys S/W 3

## FOURTH YEAR

| Fall $\quad 14$ hrs | Spring | 12 hrs ${ }^{1}$ |  |
| :--- | ---: | :---: | :---: |
| EEL 4768C Cmp Sys Dsgn II | 4 | *Cult \& Hist Foundations 2 | 3 |
| EEL 4884C Engr S/W Dsgn | 4 | EEL 4932 Comp Des S/W Engr | 3 |
| EEL 4914 Senior Design I | 3 | or EEL 5771 Eng AplComp Grph |  |
| EEL 5881 Software Engr I | 3 | EEL 4915C Senior Design II | 3 |
| EEL 4832 Apps Cmptr Mthds | 3 |  |  |

## Notes:

1. Courses marked with an asterisk (*) are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.
2. Assumes knowledge of a higher level programming language ( C preferred).
3. EGN 1006 and EGN 1930 are required courses for incoming freshmen only. The credits for these two courses (one hour each) may, with prior approval of the department academic advisor, be moved to the area 4. Approved Technical Electives.

## Integrated BS/MS Degree Program

The Computer Engineering program offers the Integrated BS/MS degree to students of high academic standing. This program will accept up to six graduate hours for those taking a non-thesis option. They will accept three graduate hours for students completing a thesis option degree. See advisor for appropriate substitutions.

COMPUTER SCIENCE (B.S.)

# College of Engineering and Computer Science <br> School of Electrical Engineering and Computer Science, <br> CSB 201 <br> E-mail: computerscience@ucf.edu 

Home Page: http://www.cs.ucf.edu
Undergraduate Coordinator, 407-823-2341

## Foundation Examination

Prior to taking courses beyond basic core requirements, students must pass a foundation exam (COT 3960) which covers problem solving techniques, algorithms, abstraction, proofs, and programming language skills. Tests will be administered each semester.

## Degree Requirements

- Students must earn at least a "C" (2.0) in each course in 2-6
- Students should consult with a departmental advisor
- Students must meet a Residency Requirement of at least 24 semester hours of regularly scheduled 3000-5000 level courses taken from Computer Science at UCF

18 of the 24 Residency hours must be at the 4000-5000 level

## 1. UCF General Education Program

A. Communication Foundations

Select ENC 1101, ENC 1102
Prefer SPC 1016
B. Cultural and Historical Foundations 9 hrs

Select MAC 2311 Calculus 4 hrs
Select STA 2023 Statistical Methods I 3 hrs
D. Social Foundations 6 hrs
E. Science Foundations

Select PHY 2048 \& L Physics for Sci \& Engr
(PR:MAC 2311) 4 hrs
Select any science course designed for majors 3 hrs (exclusive of Physics)

## 2. Common Program Prerequisites

COP XXXX* Computer Language

## (14 hrs)

3 hrs
*Majors are expected to be proficient in a variety of programming languages. Students without knowledge of C, C++, or Java are advised to take C (COP 3223) to satisfy this requirement. Students who are proficient in one of these languages may take one of the others, object oriented programming (COP 3330) or substitute any 4000-5000 level Computer Science course.

Please note that this substitution must be of a course not being used anywhere else within the requirements for the major.

MAC 2311 Calculus with Analytic Geom I GEP
MAC 2312 Calculus with Analytic Geom II 4 hrs
PHY 2048 \& L Physics for Engr. \& Sci. I \& Lab GEP
PHY 2049 \& L Physics for Engr. \& Sci. II \& Lab 4 hrs
Select two science courses designed for majors $3 \mathrm{hrs}+$ GEP
Examples of acceptable science courses include:
BSC 2010C General Biology
BSC 2011C Biological Diversity
CHM 2045C Chem. Fund I
CHM 2046 Chem. Fund II

| COP 3502C | Computer Science I | 3 hrs |
| :--- | :--- | :---: |
| COP 3503C | Computer Science II | 3 hrs |
| STA 2023 | Statistical Methods I | GEP |
| ENC 3241 | Technical Report Writing | 3 hrs |
| CDA 3103C | Computer Organization | 3 hrs |
| COT 3100C | Intro to Discrete Structures | 3 hrs |
| PHI 2XXX | Ethics in Science and Technology | 3 hrs |
| COT 3960 | Foundation Exam | 0 hrs |

## 4. Intermediate Core

(6 hrs)
COP 3402C Systems Software
3 hrs
COP 3530C Computer Science III
3 hrs

## 5. Advanced Core

( 12 hrs )
Students must maintain at least a 2.5 GPA in the following courses. Only the highest grade is used in the calculation.
CDA $4150 \quad$ Comp Architecture 3 hrs

COT 4210 Discrete Comp Structures 3 hrs
COP $4020 \quad$ Programming Languages I 3 hrs
COP $4600 \quad$ Operating Systems 3 hrs
6. Restricted Electives

- 4000-5000 level Computer Science courses that
( 18 hrs )
12 hrs must include COT 4810 (Topics in Computer Science).

Must be offered by Computer Science at UCF.
At most 3 hours of independent study allowed. No
internships or cooperative education credits are allowed.

- 4000-5000 level mathematics or statistics 6 hrs
courses from: STA, MAP, MAA, MAD, MAS prefixes and MAC 2313, MAP 2302, MAS 3105, and MAS 3106. No independent study hours, internship, or cooperative education hours are allowed.


## 7. School Exit Requirements

- Complete an exit interview with assigned faculty advisor
- Computer Competency met by completion of major


## 8. Foreign Language Requirements

(0-8 hrs)
Admission: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

Graduation: One year or equivalent proficiency exam. With prior School approval, cultural/multicultural courses may be used.

## 9. Electives

Select primarily from upper level courses, with the student's advisor's approval. May be outside of the department.

## 10. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Computer Engineering, Information Technology, Management Information Systems

## Transfer Notes:

- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.


## Integrated BS/MS Degree Program

The Computer Science program offers the Integrated BS/MS degree to students of high academic standing. This program allows up to nine graduate hours to be substituted for specified BS requirements. See advisor for appropriate substitutions.
| Home | Index | Search | News | Events | Contact UCF | Help |

CRIMINAL JUSTICE (B.S.)

College of Health and Public Affairs<br>HPA 311 407-823-2603<br>Undergraduate Program Coordinator: David Fabianic<br>E-mail: cjadvise@mail.ucf.edu<br>Web Address: http://www.cohpa.ucf.edu/crim.jus/

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog

Students should complete the General Education Program before transferring within the Florida Public University/Community College System

- The courses designated in section 1 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours
- Students must earn a minimum 2.0 GPA in the core requirements and the restricted electives.
- The courses designated in section 1 (General Education) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Math

| D. Social Foundations |  | 6 hrs |
| :---: | :---: | :---: |
| E. Science Foundations |  | 6 hrs |
| 2. Common Program Prerequisites |  | none |
| 3. Core Requirements |  | (18 hrs) |
| CCJ 3024 | Criminal Justice System | 3 hrs |
| CCJ 3014 | Crime in America | 3 hrs |
| CCJ 3290 | Prosecution and Adjudication | 3 hrs |
| CCJ 3306 | Corrections and Penology | 3 hrs |
| CCJ 4105 | Police and Society | 3 hrs |
| CCJ 4701 | Research Methods in Criminal |  |
| Justice | 3 hrs |  |

## 4. Upper Division Restricted Electives

(42 hrs)
a. 27 additional semester hours of upper division CCJ course work. Seniors can satisfy up to six hours of this requirement with internship and up to six hours with directed independent study; however, the combination of these non-class options shall not exceed nine hours. Program standards must be met to be eligible for either internships or independent study credit.
b. 15 additional semester hours of supporting courses to be selected with and approved by the student's advisor. These courses may vary from student to student depending upon individual needs or objectives, but include selected courses from public administration, legal studies, sociology, statistics, and psychology.

## 5. Upper Division Unrestricted Electives

none

## 6. Departmental Exit Requirements

( 120 hrs )
Students must take a minimum of 36 hours from the department to obtain the UCF degree in Criminal Justice.

## 7. Foreign Language Requirements

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## 8. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Legal Studies

Related Minors: Legal Studies, Public Administration, Psychology.

## Transfer Notes:

"D" (1.0) grades from other institutions do not meet departmental requirements.

## Honors

## Honors Option Requires:

Completion of a 3 credit directed readings course
Completion of a 3 credit thesis course
Open to students with a 3.5 GPA in Criminal Justice

- Completion of 60 semester hours of college credit, including 12 graded upper division hours at UCF


## Tentative Course Schedule for Entering Freshmen

## Freshman Year*

| Fall | $\mathbf{1 4} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5}$ hrs |
| :--- | ---: | :---: | ---: |
| ENC 1101 | 3 | ENC 1102 | 3 |
| CGS 1060C | 3 | MGF 1106 | 3 |

PSC 1121 or CHM $1020 \quad 3 \quad$ PSY 2013 or SYG 20003
One course: ARH 2050, ARH 2051, MUL 2010, THE 1020, REL 2300, PHI 2010, LIT 2110, LIT 2120, PAF $2102 \quad 2$ Elective 3
*Plan your required 9 summer hours into your course of study
Summer 3 hrs

POS 2041 or ECO 2013 3

## Sophomore Year

Fall 12 hrs Spring 15 hrs

SPC 1600C
EUH 2001 or HUM 2230
or AMH 2020
BSC 1005 or BSC 1050
or GLY 1030 or GEO 1200
or BOT 1000 or ANT 2511
Elective

| Summer | 8 hrs |  |  |
| :---: | :---: | :---: | :---: |
| (Foreign Lang I) | 4 |  |  |
| (Foreign Lang II) | 4 |  |  |
| if not satisfied in high school |  |  |  |
| Junior Year |  |  |  |
| Fall | 15 hrs | Spring 15 |  |
| CCJ 3290 | 3 | CCJ 4105 | 3 |
| CCJ 3306 | 3 | CCJ 4701 | 3 |
| CCJ Elective | 3 | CCJ Elective | 3 |
| Supporting Elective | 3 | Supporting Elective | 3 |
| CCJ Elective | 3 | CCJ Elective | 3 |
| Senior Year |  |  |  |
| Fall | 15 hrs | Spring 9/15 |  |
| CCJ Elective | 3 | CCJ Internship or | 3/6 |
| CCJ Elective | 3 | CCJ Elective |  |
| Supporting Elective | 3 | Supporting Elective | 3 |
| Elective | 3 | Elective (if necessary) | 3 |
| Elective | 3 | Elective (if necessary) | 3 |

DIGITAL MEDIA (B.A., B.S.)

## College of Arts and Sciences

Digital Media Program
http://www.creat.cas.ucf.edu
E-mail: digitalmedia@creat.cas.ucf.edu
J. Michael Moshell, 407-823-6100

The UCF Digital Media Program allows students to integrate the multiple disciplines of art, literature, and technology. It is designed to:

Provide a solid foundation in techniques and theory in one focused area of competence.

- Provide a broad understanding of related disciplines including arts, humanities, and technology.
- Provide extended experience in working in multidisciplinary teams on realistic problems.

The program is administered through the College of Arts and Sciences, but draws on courses throughout the university. It recognizes that there are many combinations of courses which meet the needs of individual students. One concentration area (Computing for Media) leads to a Bachelor of Science degree; the others (Computer Animation, Digital Music, Graphic Design, Internet and Interactive Systems, Writing for Media) lead to a Bachelor of Arts degree.

## Admission Requirements

none
Admission to IDS 3683 (Seminar in Digital Arts) requires admission into one of the Advanced Specializations (section 4).

## Degree Requirements

- UCF students who change degree programs and select this major must adopt the most current catalog.

Students must earn at least a "C" (2.0) in each required course.

Residency requirement consists of at least 24 hours of regularly scheduled upper division course work taken at UCF

- Co-op or internship credits are not permitted in this major without prior, written permission.

Students should see an advisor prior to selecting this major, and at least annually thereafter.

- Prior to participation in the Digital Arts Seminar, students must have achieved admission into one of the specializations listed below.

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations

Take one of the listed two semester courses, and

Select ARH 2050
If specializing in Digital Music,
Select MUL 2010
If specializing in Computing for Media or Writing for Media, Select ARH 2050 or MUL 2010
C. Mathematical Foundations 6 hrs

If specializing in Computing for Media
Select MAC 2311 Calculus with Anal Geo I and
Select COP 3502C Computer Science I
Otherwise
Select MAC 1105 College Algebra and
Select COP 2500C Concepts in Computer Science
D. Social Foundations

6 hrs
E. Science Foundations

6 hrs

## All Specializations

$$
\begin{array}{lc}
\text { IDS } 2680 \text { Introduction to Digital Media } & 3 \mathrm{hrs} \\
\text { MAC } 1105 \quad \text { College Algebra } & \text { GEP } \\
\text { (not required if Calculus has been taken) } & \\
\text { ART 2600C } \quad \text { Introduction to Computer Graphics } & 3 \mathrm{hrs} \\
\text { Additional Common Program Prerequisites vary with Specialization. }
\end{array}
$$

## 3. Digital Media Core

ART 2820 Art as Interface 3 hrs
ENC 4415 Digital Rhetorics \& Modern Dialectic 3 hrs
ENG 3XXX Ethics in Digital Media
or 3 hrs
PHI 2647
MUC 3311* MIDI Sequencing I
IDS 3684L Digital Media Service I 1 hr
IDS 4685L Digital Media Service II 1 hr
IDS 4686L Digital Media Service III 1 hr

* Students without musical training must take MUT 1001 (Music Theory) before registering for MUC 3311.


## 4. Specialization. Choose one of the following:

Note that each specialization has an audition, examination, or portfolio requirement which must be met before admission into the Advanced Concentration.

## B.A. Graphic Design:

(36 hrs)

## 4A: Common Program Prerequisites - Graphic Design:

ARH 2050 Art History I

GEP

ARH 2051 Art History II
3 hrs
ART 2201C Design Fundamentals I

| ART 2203C | Design Fundamentals II | 3 hrs |
| :--- | :--- | :---: |
| ART 2300C | Drawing Fundamentals I | 3 hrs |
| ART 2301C | Drawing Fundamentals II | 3 hrs |
| COP 2500C | Concepts in Computer Science | GEP |
| MUT 1001 | Fundamentals of Music I | 3 hrs |

4B: Basic Concentration - Graphic Design None

4C: Advanced Concentration - Graphic Design:
NOTE: Portfolio review required for these courses

| ART 3239C | Intermediate Graphic Design I | 3 hrs |
| :--- | :--- | :---: |
| ART 3232C | Intermediate Graphic Design II | 3 hrs |
| ART 3610C | Computer Graphic Design | 3 hrs |
| ART 4235C | Advanced Graphic Design | 3 hrs |
| ART 4237C | Special Problems-Graphic Design | 3 hrs |
| (Repeat for credit) |  |  |

## B.A. Computer Animation: <br> (33 hrs)

4A: Common Program Prerequisites - Comp Animation:
ARH 2050 Art History I GEP

ARH 2051 Art History II 3 hrs
ART 2201C Design Fundamentals I 3 hrs
ART 2203C Design Fundamentals II 3 hrs
ART 2300C Drawing Fundamentals I 3 hrs
ART 2301C Drawing Fundamentals II 3 hrs
COP 2500C Concepts in Computer Science GEP
MUT 1001 Fundamentals of Music I 3 hrs

| FIL 3286C | Intro to Computer Animation | 3 hrs |
| :--- | :--- | :---: |
| FIL 3287C | Intermediate Computer Animation | 3 hrs |
| FIL 4288C | Advanced Computer Animation | 3 hrs |
| FIL 4289C | Computer Animation Workshop | 3 hrs |

B.S. Computing for Media: (42 hrs)

4A: Common Program Prerequisites - Computing:
MAC 2311 Calculus I GEP
MAC 2312 Calculus II 3 hrs
COP 3330 Object Oriented Programming* 3 hrs
COP 3502C Computer Science I GEP
ART 2394 Drawing: Computer as a Medium 3 hrs
MUT 1001 Fundamentals of Music I 3 hrs

4B: Basic Concentration - Computing for Media
COP 3223 C Language 3 hrs
COP 3503C Computer Science II 3 hrs
COT 3100C Introduction to Discrete Structures 3 hrs
COT 3960* Foundation Exam 0 hrs
*Must be passed for admission to advanced concentration.

4C: Advanced Concentration - Computing for Media:
NOTE: COT 3960 is required for these courses

| COP 3530C | Computer Science III | 3 hrs |
| :--- | :--- | :---: |
| COP 3346 | Unix Programming | 3 hrs |
| (Choose 15 hours from 3000 or 4000 level COP, |  |  |
| CAP, CDA, or COT courses, excluding Co-op) | 15 hrs |  |
| Recommended Courses |  |  |
| CAP 4020 $\quad$ Digital Media |  |  |
| CAP 4021 $\quad$ Building Virtual Worlds |  |  |
| CAP 5725 $\quad$ Computer Graphics Systems I |  |  |
| CAP 4453 or CAP 5415 Robot Vision |  |  |
| COP $4520 \quad$ Parallel and Distributed Processing |  |  |

B.A. Writing for Media ..... (39 hrs)
4A: Common Program Prerequisites - Writing for Media
ENC 1101 Composition I ..... GEP
ENC 1102 Composition II ..... GEP
COP 2500C Concepts in Computer Science ..... GEP
ARH 2050 Art History I GEP
ART 2394 Drawing: Computer as a Medium ..... 3 hrs
MUT 1001 Fundamentals of Music I ..... 3 hrs
ARH 2051 Art History II
or ..... 3 hrsMUL 2010 Enjoyment of Music4B: Basic Concentration - Writing for Media:
ENC 4218 Visual Elements in Documentation ..... 3 hrs
CRW 3410 Writing Scripts ..... 3 hrs
ENG 3014 Theories \& Tech of Lit. Study ..... 3 hrs
ENC 3211 Theory \& Practice Tech Writing ..... 3 hrs
4C: Advanced Concentration - Writing for Media
NOTE: Portfolio review required for these courses
ENG 4114 Literature and Film 3 hrs
ENC 4215 Techniques of Tech. Publication 3 hrs
ENC 4312 Theory \& Prac Persuasive Writing 3 hrs
CRW 3211 Creative Nonfiction Writing 3 hrs
ENC 3310 Magazine Writing 3 hrs
B.A. Digital Music ..... (37 hrs)
4A: Common Program Prerequisites - Digital Music
MUL 2010 Enjoyment of Musis ..... GEP
MUT 1111 Music Theory 1A ..... 2 hrs
MUT 1112 Music Theory 1B ..... 2 hrs
MUT 2116 Music Theory IIA ..... 2 hrs
MUT 2117 Music Theory IIB ..... 2 hrs
MUT 1241 Ear Training/Sight Singing IA ..... 1 hr
MUT 1242 Ear Training/Sight Singing IB ..... 1 hr
COP 2500C Concepts in Computer Science ..... GEP
ART 2394 Drawing: Computer as a Medium ..... 3 hrs
4B: Basic Concentration - Digital Music
MUS 1010 Music Forum (four semesters) 0 hrsMUN XXXX Ensembles (four semesters) 4 hrsMVB/MVK/MVP/MVS/
MVV/MVW Performance (four semesters) ..... 8 hrs

MUC 4441 Midi Sequencing II 3 hrs MUS 4635C Sound Design 3 hrs

MUS 4645C Music Post Production Techniques 3 hrs
MUC 4XXX Composing for Digital Media 3 hrs
B.A. Internet and Interactive Systems:
(33 hrs)
4A: Common Program Prerequisites - Internet
COP 2500C Concepts in Computer Science
GEP
(See Transfer Guide)

4B: Basic Concentration - Internet
IDS 4XXX Internet Technology 3 hrs
IDS 4XXX Interactive Entertainment 3 hrs
Select nine hours from any other single
Basic Concentration Group 9 hrs

4C: Advanced Concentration - Internet
NOTE: Web site portfolio review required for these courses
Select any three of the following courses
9 hrs
IDS 4681 Realtime Modeling
IDS 4XXX Digital Imagery
IDS 4XXX Game Design
IDS 4XXX Game Engines
IDS 4XXX Internet e-commerce
Select any three of the following courses 9 hrs
IDS 4XXX Media Convergence and the Internet

CAP 4020 Digital Media
ENG 4XXX Usability Testing
EXP 5256 Human Factors I
Any 3000 or 4000 -level courses included in
another Digital Media Concentration

## 5. Capstone Experience

Admission to IDS 3683 requires students to be admitted into the Advanced Concentration within their Specialization
IDS 3683 Seminar in Digital Arts
3 hrs
IDS 4682 Digital Media Project
6 hrs

The capstone experience is a year long Senior Project, supervised by a multidisciplinary team of faculty. The student creates an innovative multimedia project and exhibits it in a public forum.

## 6. Foreign Language Requirements

## (0-11 hrs)

Admission: Met by graduation requirement.
Graduation: Writing for Media: Three semesters or equivalent proficiency. One semester may be replaced by a cultural/ multicul-tural course. All others: two semesters or equivalent proficiency.

## 7. Electives

(variable)
Electives will consist of 3000 and 4000-level courses as approved by the student's advisor.

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of


## 9. Total Semester Hours Required

## 120 hours

Related Programs: Art, Animation, Computer Science, English, Film, Music

Related Minors: Art-Studio, Computer Information Technology, Computer Science, Digital Media, English-Technical Writing, Film, Music

## Transfer Notes:

- Grades less than "C" (2.0) do not meet Digital Media requirements.
- Courses taken at community colleges do not substitute for upper division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable substitutes for Common Program Prerequisites if taken prior to transferring to UCF: COP 3330* may use COP 2253 Java.

Note: Common Program Prerequisites have not yet been set for the Internet and Interactive Systems track. Any subsequent changes in CPP will be retroactive.

EARLY CHILDHOOD EDUCATION
(PRE-KINDERGARTEN THROUGH GRADE 3) (B.S.)

## College of Education

Instructional Programs and Educational Leadership, ED346, 407-823-2939
Coordinator: Patricia Crawford, ED252, 407-823-5834,
E-mail: pcrawfor@pegasus.cc.ucf.edu
Web Address: http://www.edcollege.ucf.edu

## Admission Requirements:

Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university

Have a minimum 2.5 overall GPA

- Pass four parts of the CLAST examination (no alternatives are accepted)
- Complete prerequisite courses

Complete a formal application for admission. Deadlines: June 30th for the Fall Semester; October 15th for the Spring Semester.

- Meet any special departmental requirements


## Degree Requirements:

- Students should see an advisor
- The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours

1. UCF General Education Program (36 hrs)
A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II
SPC 1600C Fundamentals of Oral Communication 3 hrs
B. Cultural-Historical Foundations* (9 hrs)

AMH 2010 U.S. History 1492-1877 3 hrs
AMH 2020 U.S. History 1877-Present 3 hrs
PHI 2010 Introduction to Philosophy 3 hrs
C. Mathematical Foundations* (6 hrs)

MGF 1106 Finite Mathematics 3 hrs
Select one:
STA 1060C Basic Statistics using MS Excel or 3 hrs
STA 2014C Principles of Statistics 3 hrs
D. Social Foundations (6 hrs)

POS 2041 American National Government 3 hrs
PSY 2013 General Psychology 3 hrs
E. Science Foundations (6 hrs)

PSC 1121 Physical Science 3 hrs
Select one:
ANT 2511 The Human Species or 3 hrs
BSC 1005 Biological Principles 3 hrs
Note: See laboratory component under Section 2.

## 2. Common Program Prerequisites

( 25 hrs )
A. Communications
(9 hrs)
ENC 1101 Composition I
GEP
ENC 1102 Composition II

GEP
B. Humanities

PHI 2010 Introduction to Philosophy
Select one:
ARH 2050 The History of Art I or
ARH 2051 The History of Art II or
MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History 1492-1877 GEP

AMH 2020 U.S. History 1877-Present
POS 2041 American National Government

## GEP

## GEP

PSY 2013 General Psychology
E. Science

PSC 1121 Physical Science
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Select one:
AST 2002 Astronomy or
GEO 1200 Physical Geography or
GLY 1030 Geology and its Applications

GEP
( $9 \mathrm{hrs}+\mathrm{lab}$ )
GEP
GEP

3 hrs

## GEP

 3 hrs (9 hrs)3 hrs

## GEP

## GEP

AMH 2010
U.S. History

BSC 1005L Biological Principles Laboratory or
GEO 1200L Physical Geography Laboratory or
PSC 1121L Physical Science Laboratory
F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations
EME 2040 Intro to Educational Technology
G. Diversity Courses
H. Other Program Prerequisites
(9 hrs)
3 hrs
3 hrs
3 hrs
GEP

Students must select an additional six hours in courses
in the following liberal arts and sciences areas:
communications, mathematics, natural and/or physical
sciences, fine arts and/or humanities, and social sciences.
3. Education Preprofessional Requirements

ARE 2011 Art \& Creativity in Early Child Ed 3 hrs
MUE 2211 Music \& Movement in Early Child 3 hrs

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to 2000-01, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 4. Specialization Requirements

Early Childhood Education majors take a variety of courses related to young children, their learning, their development, and family environment. Students majoring in Early Childhood Education take a series of core and specialization courses to prepare them to teach in the schools and to demonstrate the

Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Early Childhood Education major's program and to integrate theory and practice in actual school settings. Throughout the Early Childhood Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 5. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 6. Foreign Language Requirements

 (0-8 hrs)State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 7. Departmental Exit Requirements

Achieve a minimum 2.5 GPA in all courses within the major.
Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.

## 8. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 9. Total Semester Hours Required <br> To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.

ECONOMICS (B.A.)

College of Arts and Sciences
Political Science Department, CNH 415, 407-823-2608
http://pegasus.cc.ucf.edu/~politics
E-mail: politics@ucf.edu
R. Bledsoe, 407-823-2608

The Bachelor of Arts in Economics is designed for students with a liberal arts background, and will provide them with a strong foundation for future graduate studies or as training for a career in politics, teaching, research, social services and a variety of other areas. Successful completion of this program leads to the Bachelor of Arts degree with a major in Economics.

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog

Co-op or internship credit can not be used in the major

- Students should consult with a departmental advisor
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations
D. Social Foundations
Select ECO 2013 Princ of Economics I PSY 2013, SYG 2000 or ANT 20003 hrs E. Science Foundations

## 2. Common Program Prerequisites

ECO 2013* Principles of Economics I
ECO 2023* Principles of Economics II
*See Transfer Notes for possible substitutes

## 3. Core requirements

ECO 3101 Intermediate Price Theory
ECO 3203 Aggrer Eco Conditions Anal
ECO 3401 Quantitative Business Tools I
ECO 3411 Quantitative Business Tools II
ECO 4451 Research Methods in Economics 3 hrs

## 4. Upper Division Restricted Electives

( 15 hrs )
3 hrs
3 hrs
3 hrs
3 hrs

ECO 3703 International Economics
ECO 3723 International Commercial Policy
ECS 4003 Comparative Economic Syst
ECS 4013 Eco Development
ECS 4231* Japanese Prosperity
ECS 4303 Eco of European Integration
ECS 4204 Economics of the Pacific Rim

* Requires departmental approval

Standard option-Select six courses:
ECO 3223 Money and Banking
ECO 3622 American Economic History
ECO 3703 International Economics
ECO 3723 International Commercial Policy
ECO 4303 History of Economic Thought
ECO 4412 Eco Stat and Econometrics
ECO 4504 Eco of the Public Sector
ECP 3004 Seminar in Current Eco Topics
ECP 3203 Contemp Labor Eco
ECP 3433 Transportation Eco
ECP 4403 Business, Govt \& Indust Org
ECP 4603 Urban and Regional Eco Prob
ECP 4703 Managerial Economics
ECS 4003 Comparative Economic Syst
ECS 4013 Eco Development
ECS 4231* Japanese Prosperity
ECS 4303 Eco of European Integration
ECS 4204 Economics of the Pacific Rim
ECO 4941* Economics Internship

* Requires departmental approval

Multi-disciplinary Option:
Select 4 courses from the standard list above
Select 2 courses from one of the following emphasis*
Political Economy*
Area Studies*

## 5. Required Minor

## ( 18 hrs minimum)

Completion of a minor in one of the following:
Digital Media, Computer Science, History, Mathematics, Statistics, the Social and Behavioral Sciences, or Technical Writing.

## 6. Departmental Exit Requirements

- Maintain a minimum GPA of 2.0 in required courses
- Computer Competency met by Research Methods course


## 7. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement
Graduation: One year or equivalent proficiency exam.

## 8. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 9. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Economics BS

Related Minors: Computer Science, Economics, Mathematics, Political Science, Psychology, Sociology, Statistics

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- ECO 2013* \& 2023*: Any lower level Economics course. However ECO 2013 and 2023 are prerequisites for all subsequent economics courses and will need to be taken.

ECONOMICS (B.S.B.A.)

College of Business Administration
BA 240, 407-823-2184
http://www.bus.ucf.edu

## Admission Requirements

- Completion of the UCF General Education program or an AA degree from a Florida Public Community College
- See Common Program Prerequisites


## Degree Requirements

1. UCF General Education Program
A. Communication Foundations 9 hrs
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 1105 College Algebra
Select CGS 2100C Computer Fundamentals for Bus 3 hrs
D. Social Foundations

Select ECO 2013 Principles of Economics I or
ECO 2023 Principles of Economics II
Select one: PSY 2013, SYG 2000, ANT 2000
E. Science Foundation

3 hrs
(36 hrs)

9 hrs 3 hrs 3 hrs 6 hrs

## 2. Common Program Prerequisites

Must be completed with a "C" (2.0) or better.
ACG 2021 Principles of Financial Accounting
ACG 2071 Principles of Managerial Accounting
ECO 2013 Principles of Macroeconomics
ECO 2023 Principles of Microeconomics
*ECO 3401 Quantitative Business Tools I
CGS 2100C Computer Fundamentals for Business

* At UCF, students who have completed MAC2233 and STA2023 will be waived from ECO3401. Students who have not completed both classes with a "C" (2.0) or better must take ECO3401.


## 3. Common Body of Knowledge

First Semester in the College of Business Administration:
GEB 3031 Cornerstone 6 hrs
First or subsequent semesters depending on major:
BUL 3130 Legal \& Ethical Environ. of Business 3 hrs
ECO 3411 Quantitative Business Tools II 3 hrs
FIN 3403 Business Finance 3 hrs
MAN 3025 Management of Organizations 3 hrs
ISM 3011 Essentials of Management 3 hrs
Information Systems
MAR 3023 Marketing 3 hrs
Last Semester:
GEB 4361 Business in the Internat'l Environment 3 hrs
MAN 4720 Strategic Management 3 hrs

## 4. Special College and/or Departmental Requirements

- Only grades of "C" (2.0) or higher transfer into the program and students must have a "C" (2.0) or better in each common program prerequisites class.
- Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
- Students must have at least a 2.0 GPA in the COB.

A transfer student to this program must take a minimum of 12 semester hours in economics at UCF.

- Students not in attendance at the first meeting of any College of Business course may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.

Students must complete 60 credit hours in courses outside the College of Business.

## 5. Required Major Courses

ECO 3101 Intermediate Price Theory 3 hrs
ECO 3203 Aggregate Econ Conditions Analysis 3 hrs
ECO 4451 Research Methods in Economics 3 hrs

## 6. Upper Division Restricted Electives

( 18 hrs )
All economics majors will be required to take six (6) electives by choosing one of the following three options:
A. Standard Option - Select any six (6) 3000-4000 level economics courses other than the three required above.
B. International Option - Select any six (6) courses from the following list:

ECO 3703 International Economics 3 hrs
ECO 3723 International Commercial Policy 3 hrs
ECO 4210 The Chinese Economy 3 hrs
ECO 4701 The Global Economy 3 hrs
ECS 4003 Comparative Economic Systems 3 hrs
ECS 4013 Economic Development 3 hrs
ECS 4231 Japanese Prosperity: A Study of
Human Resource Development 3 hrs

ECS 4204 The Economies of the Pacific Rim
ECS 4303 Economics of European Integration 3 hrs
*ECO 4941 Economics Internship
*Requires special approval
C. Multi-Disciplinary Option - Select any four (4) economic courses from the standard option of restricted electives PLUS any
two courses from any one emphasis in consultation with faculty
advisor.

## Emphasis 1

Emphasis 2
Emphasis 3
Emphasis 4
Emphasis 5
Emphasis 6
Emphasis 7

Political Economy
Area Studies
International Business
Human Resources
Legal Studies
Financial Economics
Quantitative Methods

## 7. Foreign Language Requirements

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## Graduation:

none

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award 48 semester hours of upper division credit completed

30 semester hours of coursework completed in residency (last 30 hours) at UCF
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Military credit permitted

Completion of the General Education Program, the Gordon Rule, the CLAST, and nine semester

## 9. Electives

***Total Semester Hours Required
(variable)

120 hours

## Community/Junior College Transfer Notes

- Common Program Prerequisites for the State University System for College of Business Administration programs include Financial Accounting, Managerial Accounting, Macroeconomics, Microeconomics, Calculus, Statistics, and a relevant computer class. At UCF Business, students who have completed the calculus and statistics class will be waived from Business Quantitative Tools I. Students who have completed either the calculus or the statistics, but not both, must take Quantitative Tools I.
- Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in the UCF Business program. Only grades of "C" (2.0) or higher transfer into the program and students must have a "C" (2.0) or better in each common program prerequisites class.

ACG X001 and X011 will substitute for ACG 2021 at UCF
Florida Public Community College students are advised to complete the Associate of Arts degree, to include the general education requirements, the common program prerequisites for the SUS system, and college algebra.

- Professional courses should not be taken at a community/junior college in the areas of Management, Marketing, Real Estate, or Finance. These professional areas are third and fourth year (junior, senior) course areas and cannot be satisfied with freshman, sophomore level courses.

A minimum of 12 semester hours must be completed at UCF within each individual major.

- Orientation and advising are two of the most valuable tools that a student can make use of when transferring to UCF. Be sure that you take advantage of both.


## Four Year Plan of Study - Economics

## Freshman

Fall
15 hrs
Spring
15 hrs
ENC 1101*
3
ENC 1102*

| Cult-Hist I* | 3 | Cult-Hist II* | 3 |
| :--- | :---: | :--- | :--- |
| SPC 1600C | 3 | Art/Music/Lit | 3 |
| $* * *$ Elective | 3 | MAC 1105* | 3 |
| $* * *$ Elective | 3 | CGS 2100C* | 3 |

Must complete 9 hours in a summer semester

## Sophomore

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5 ~ h r s ~}$ |
| :--- | ---: | :--- | :---: |
| ECO 2013* | 3 | ECO 2023* | 3 |
| ACG 2021* | 3 | ACG 2071* | 3 |
| Science | 3 | Science | 3 |
| Psy/Soc/Ant | 3 | $* * *$ Elective | 3 |
| $* * *$ Elective | 3 | ECO $3401 *$ | 3 |
| $* " C^{\prime \prime}(2.0)$ or better grade required in each class |  |  |  |

Junior
Fall
GEB 3031
***Elective
MAR 3023
ECO 3101
ECO Elective
15 hrs
Spring
$6 \quad$ ECO 3411
3 MAN 3025
3 ECO 3203
3 FIN 3403
3

Senior

Fall
ECO Elective
ISM 3011
BUL 3130

15 hrs Spring
3 MAN 4720
3 GEB 4361
3 ECO Elective

15 hrs

3

15 hrs

| ECO Elective | 3 | ECO 4XXX | 3 |
| :--- | :--- | :--- | :--- |
| ECO Elective | 3 | ECO Elective | 3 |

***General electives as required to reach 120 semester hours to include at least 60 semester hours outside the College of Business Administration. Economics courses in the Common Program Prerequisites and the Common Body of Knowledge count toward the 60 hours outside Business Administration.

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(407) 823-2000

ELECTRICAL ENGINEERING (B.S.E.E.)

College of Engineering and Computer Science
School of Electrical Engineering and Computer Science,
ENGR 408, 407-823-2786, Fax: 407-823-5835,
Home Page: http://www.ece.engr.ucf.edu
K. B. Sundaram, E-mail: sundaram@mail.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes engineering academic advisement and registration for first-semester UCF classes; see also the section, Orientation, found elsewhere in this catalog.

## Degree Requirements

Each engineering student is assigned a qualified engineering academic advisor in the department of his/her major. Each student should seek academic advisement before registering for classes each semester to minimize excess hours and to ensure that satisfactory academic progress is being maintained.

## 1. UCF General Education Program for Engineering

## Students

(38 hrs)
The UCF General Education Program (GEP) is described in the section, General Education Program, found elsewhere in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from within the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations
9 hrs
2. Take ENC 1102
3. Prefer SPC 1016
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations 7 hrs

1. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
2. Take STA 3032 ( 3 hrs ). Note: Calculus II is the prerequisite for this course.
D. Social Foundations
3. Take ECO 2013 or ECO 2023.
4. Take ANT 2000, PSY 2013, or SYG 2000.
E. Science Foundations
5. Take PHY 2048/48L.
6. take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

(19 hrs)
These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements, as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHS 1440 Fundamentals of Chemistry for Eng 4 hrs
(CHM 2045/45L will substitute)
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)
MAC 2283 Calculus for Scientists \& Engineers III 4 hrs (MAC 2313 will substitute)

MAP 2302 Differential Equations 3 hrs
PHY 2048/48L Physics for Engineers \& Scientists I GEP
PHY 2049/49L Physics for Engineers \& Scientists II 4 hrs
ENC 1101 Composition I GEP
ENC 1102 Composition II GEP
Humanities Courses
Social Science Courses
Humanities or Social Sciences

GEP
GEP
GEP

## 3. Courses Required for the Major

## ( 56 hrs )

The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.250 GPA in completing these courses, together with the technical elective courses listed in 4. below and with the senior design courses listed in $\mathbf{5}$. below. Independent study courses generally do not satisfy major requirements and normally are awarded grades of I, S, or U.

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1930 ST: Engineering Concepts \& Methods 1 hr
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics or
EGN 3358 Thermo-Fluids-Heat Transfer 3 hrs
EGN 3373 Principles of Electrical Engineering 4 hrs
EGN 3420 Engineering Analysis 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
PHY 3101 Physics for Engineers \& Scientists III 3 hrs
EEL 3122C Electrical Networks 4 hrs
EEL 3306 Semiconductor Devices I 3 hrs
EEL 3307C Electronics I 4 hrs

| EEL 3342C | Intro to Digital Circuits \& Systems | 3 hrs |
| :--- | :--- | ---: |
| EEL 3470 | Electromagnetic Fields | 3 hrs |
| EEL 3552C | Signal Analysis and Communications | 4 hrs |
| EEL 3657 | Linear Control Systems | 3 hrs |
| EEL 3801C | Intro to Computer Engineering | 3 hrs |
| EEL 4309C | Electronics II | 4 hrs |
| EEL 4750 | Digital Signal Processing Fund. | 3 hrs |
| EEL 4767C | Computer System Design I | 4 hrs |
| 4. Approved Technical Electives | (9 hrs) |  |

Technical electives are available in the BSEE program to address specific student interests in a variety of technical areas. Students should consult with their assigned academic advisor for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 5. Departmental Graduation Requirements

(6 hrs)
EEL 4914 Senior Design I 3 hrs

EEL 4915L Senior Design II 3 hrs

- COECS encourages all engineering students to take the Engineering Intern Exam during their Senior year.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation: None.

## 7. University Minimum Graduation Requirements

A 2.0 UCF GPA.
60 semester hours earned after any CLEP award.
48 semester hours of upper division credit completed.
32 semester hours of regular courses completed at UCF.

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and

Armed Forces credits are permitted.

- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit.


## Total Semester Hours Required:

## 128 hrs

Related Programs: Computer Engineering, Computer Science, Electrical Engineering Technology (Electrical Systems Concentration).

## Related Minors: <br> none

## Transfer Notes:

Courses taken from Community Colleges do not substitute for Upper Division Courses
Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information with his/her petition for this evaluation.

## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Electrical Engineering - 128 semester hours required FIRST YEAR

Fall 12 hrs $^{1,3}$ Spring 15 hrs $^{1,3}$

EGN 1006 Intro to Engr 1 EGN 1930 Eng Conc \& Meth *ENC 1101 English Comp I
*CHS 1440 Chem for Engrs 4 *SPC 1016 Tech Presentations 3
*MAC 2281 Calc Sci \& Eng I 4 *MAC 2282 Calc Sci \& Eng II 4
Summer ..... 11 hrs $^{1}$
*Cult \& Hist Foundations 1a ..... 3
*MAC 2283 Calc Sci \& Eng III ..... 4
*PHY 2049 Phys for Engr/Sci II ..... 3
*PHY 2049L Phys Lab En/Sci II
SECOND YEAR
Fall 15 hrs ${ }^{1}$ Spring ..... 16 hrs ${ }^{1}$
*MAP 2302 Diff Equations 3 *Cult \& Hist Foundations 2 ..... 3
*PHY 3101 Phys for Engr/Sci III3 EGN 3310 Engr Anal-Statics ..... 3
*Science Foundations 23 EGN 3373 Prin of Elec Engr 4 *Social Foundations 1
3 EEL 3342C Intro to Dig Circ/Sy
EGN 3420 Engineering Anal ${ }^{2} 3$ EEL 3801C Intro to Cmptr Engr ${ }^{2} 3$
Summer ..... 6 hrs ${ }^{1}$
*Cult \& Hist Foundations 1b ..... 3
*ECO 2013 or ..... 3ECO 2023 Prin of Econ I, II
THIRD YEAR
Fall 14 hrs Spring ..... 13 hrs
EEL 3306 Semicond Devices I 3 EEL 3307C Electronics I ..... 4
STA 3032 Prob \& Stats Engrs 3 EEL 3657 Linear Control Sys ..... 3
EEL 3122C Electrical Networks 4 EEL 4750 Dig Signal Proc Fund ..... 3
EEL 4767C Cmptr Sys Design I 4 EGN 3321 Engr Anal-Dynamics ..... 3
or
EGN 3358 Ther-Flds-Ht Transfer

| Fall | 14 hrs | Spring | $\mathbf{1 2 ~ h r s ~}$ |
| :--- | :---: | :---: | :---: |
| EEL 3552C Sig Anal\&Comm | 4 | Approved Technical Elective | 3 |
| EEL 3470 Electromagnetic Flds | 3 | Approved Technical Elective | 3 |
| EEL 4309C Electronics II | 4 | Approved Technical Elective | 3 |
| EEL 4914 Senior Design I | 3 | EEL 4915C Senior Design II | 3 |

## Notes:

1. Courses marked with an asterisk (*) are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.
2. Assumes knowledge of a higher level programming language (C preferred).
3. EGN 1006 and EGN 1930 are required courses for incoming freshmen only. The credits for these two courses (one hour each) may, with prior approval of the department academic advisor, be moved to the area
4. Approved Technical Electives.

## Integrated BS/MS Degree Program

The Electrical Engineering program offers the Integrated BS/MS program to students of high academic standing. This program will accept up to six graduate hours for those taking a non-thesis option. They will accept three graduate hours for students completing a thesis option degree. See advisor for appropriate substitutions.

# ELECTRICAL ENGINEERING - MICROELECTRONICS CONCENTRATION (B.S.E.E.) 

College of Engineering and Computer Science
School of Electrical Engineering and Computer Science,
ENGR 408, 407-823-2786, Fax: 407-823-5835,
Home Page: http://www.ece.engr.ucf.edu
K. B. Sundaram, E-mail: sundaram@mail.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes
engineering academic advisement and registration for first-semester UCF classes.

## Degree Requirements

- Each engineering student is assigned a qualified engineering academic advisor in the department of his/her major. Each student should seek academic advisement before registering for classes each semester to minimize excess hours and to ensure that satisfactory academic progress is being maintained.


## 1. UCF General Education Program for Engineering

## Students

 (38 hrs)The UCF General Education Program (GEP) is described in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from within the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations

9 hrs

1. Take ENC 1101
2. Take ENC 1102
3. Prefer SPC 1016
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations 7 hrs
4. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
5. Take STA 3032 (3 hrs). Note: Calculus II is the prerequisite for this course.
D. Social Foundations

6 hrs

1. Take ECO 2013 or ECO 2023.
2. Take ANT 2000, PSY 2013, or SYG 2000.
E. Science Foundations

7 hrs

1. Take PHY 2048\&L.
2. Take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

(19 hrs)
These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements, as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHS 1440 Fundamentals of Chemistry for Eng 4 hrs
(CHM 2045/45L will substitute)
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)

MAP 2302 Differential Equations 3 hrs
PHY 2048\&L Physics for Engineers \& Scientists I GEP
PHY 2049\&L Physics for Engineers \& Scientists II 4 hrs
ENC 1101 Composition I GEP
ENC 1102 Composition II GEP
Humanities Courses
Social Science Courses
Humanities or Social Sciences

## 3. Courses Required for the Major

(56 hrs)
The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.25 GPA in completing these courses, together with the technical elective courses listed in 4. below and with the senior design courses listed in $\mathbf{5}$. below. Independent study courses generally do not satisfy major requirements and normally are awarded grades of I, S, or U.

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1930 ST: Engineering Concepts \& Methods 1 hr
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics or
EGN 3358 Thermo-Fluids-Heat Transfer 3 hrs
EGN 3373 Principles of Electrical Engineering 4 hrs
EGN 3420 Engineering Analysis 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
PHY 3101 Physics for Engineers \& Scientists III 3 hrs
EEL 3122C Electrical Networks 4 hrs
EEL 3306 Semiconductor Devices I 3 hrs
EEL 3307C Electronics I 4 hrs
EEL 3342C Intro to Digital Circuits \& Systems 3 hrs

EEL 3470 Electromagnetic Fields 3 hrs
EEL 3552C Signal Analysis and Communications 4 hrs
EEL 3657 Linear Control Systems 3 hrs
EEL 3801C Intro to Computer Engineering 3 hrs
EEL 4309C Electronics II 4 hrs
EEL 4750 Digital Signal Processing Fund. 3 hrs
EEL 4767C Computer System Design I 4 hrs

## 4. Approved Technical Electives

Technical electives are available in the BSEE program to address specific student interests in a variety of technical areas. For those students with a declared interest in microelectronics, a concentration in this area if available by taking the following technical electives in addition to the required microelectronics courses listed in 3. above.

EEL 4314 Device Electronics for Integ Circuits 3 hrs
EEL 5357 CMOS Analog and Digital IC Design 3 hrs
EEL 5353 Semiconductor Dev Modeling \& Sim or
EEL 5355C Fabrication of Solid State Devices 3 hrs

## 5. Departmental Graduation Requirements <br> (6 hrs)

EEL 4914 Senior Design I 3 hrs
EEL 4915L Senior Design II 3 hrs

- COECS encourages all engineering students to take the Engineering Intern Exam during their Senior year.


## 6. Foreign Language Requirements

 (0-8 hrs)Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 7. University Minimum Graduation Requirements

A 2.0 UCF GPA.
60 semester hours earned after any CLEP award.
48 semester hours of upper division credit completed.
32 semester hours of regular courses completed at UCF.

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted.
- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit.


## Total Semester Hours Required: <br> 128 hours

Related Programs: Computer Engineering, Computer Science, Electrical Engineering Technology (Electrical Systems Concentration).

## Related Minors:

none

## Transfer Notes:

- Courses taken from Community Colleges do not substitute for Upper Division Courses
- Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information with his/her petition for this evaluation.


## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Electrical Engineering - Microelectronics Concentration <br> 128 semester hours required


EEL 3306 Semicond Devices I ..... 3
EEL 3307C Electronics I ..... 4
STA 3032 Prob \& Stats Engrs 3EEL 3122C Electrical NetworksEEL 4767C Cmptr Sys Design I 4 EGN 3321 Engr Anal-Dynamics3
or
EGN 3358 Ther-Flds-Ht Transfer

## FOURTH YEAR

Fall 14 hrs Spring 12/13 hrs
EEL 3552C Sig Anal\&Comm 4 EEL 4314 Dev Elec Int Circ ..... 3
EEL 3470 Electromagnetic Flds 3 EEL 5357 CMOS IC Design ..... 3
EEL 4309C Electronics IIEEL 4914 Senior Design I
4 EEL 4915C Senior Design II ..... 3
3 EEL 5353 Semicond Dev Sim ..... 3/4
orEEL 5355C Fab Sol St Devices

## Notes:

1. Courses marked with an asterisk (*) are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.
2. Assumes knowledge of a higher level programming language ( C preferred).
3. EGN 1006 and EGN 1930 are required courses for incoming freshmen only. The credits for these two courses (one hour each) may, with prior approval of the department academic advisor, be moved to the area 4. Approved Technical Electives.

## Integrated BS/MS Degree Program

The Electrical Engineering program offers the Integrated BS/MS program to students of high academic standing. This program will accept up to six graduate hours for those taking a non-thesis option. They will accept three graduate hours for students completing a thesis option degree. See advisor for appropriate substitutions.
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Orlando, Florida
(407) 823-2000

## ELECTRICAL ENGINEERING - WIRELESS COMMUNICATION CONCENTRATION (B.S.E.E.)

## College of Engineering and Computer Science

School of Electrical Engineering and Computer Science,
ENGR 408, 407-823-2786, Fax: 407-823-5835,
Home Page: http://www.ece.engr.ucf.edu
K. B. Sundaram, E-mail: sundaram@mail.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes engineering academic advisement and registration for first-semester UCF classes.

## Degree Requirements

- Each engineering student is assigned a qualified engineering academic advisor in the department of his/her major. Each student should seek academic advisement before registering for classes each semester to minimize excess hours and to ensure that satisfactory academic progress is being maintained.


## 1. UCF General Education Program for Engineering

Students
( $\mathbf{3 8} \mathrm{hrs}$ )
The UCF General Education Program (GEP) is described in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from within the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations
9 hrs

1. Take ENC 1101
2. Take ENC 1102
3. Prefer SPC 1016
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations 7 hrs
4. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
5. Take STA 3032 ( 3 hrs ). Note: Calculus II is the prerequisite for this course.
D. Social Foundations

6 hrs

1. Take ECO 2013 or ECO 2023.
2. Take ANT 2000, PSY 2013, or SYG 2000.
E. Science Foundations

7 hrs

1. Take PHY 2048/48L.
2. Take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

(19 hrs)
These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements, as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHS 1440 Fundamentals of Chemistry for Eng 4 hrs
(CHM 2045/45L will substitute)
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)
MAC 2283 Calculus for Scientists \& Engineers III 4 hrs
(MAC 2313 will substitute)

| MAP 2302 | Differential Equations | 3 hrs |
| :--- | :--- | :---: |
| PHY 2048/48L | Physics for Engineers \& Scientists I | GEP |
| PHY 2049/49L | Physics for Engineers \& Scientists II | 4 hrs |
| ENC 1101 | Composition I | GEP |
| ENC 1102 | Composition II | GEP |
| Humanities Courses | GEP |  |
| Social Science Courses | GEP |  |
| Humanities $\boldsymbol{o r}$ Social Sciences | GEP |  |

## 3. Courses Required for the Major

( 56 hrs )
The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.25 GPA in completing these courses, together with the technical elective courses listed in 4. below and with the senior design courses listed in $\mathbf{5}$. below. Independent study courses generally do not satisfy major requirements and normally are awarded grades of I, S, or U.

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1930 ST: Engineering Concepts \& Methods 1 hr
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics or
EGN 3358 Thermo-Fluids-Heat Transfer 3 hrs
EGN 3373 Principles of Electrical Engineering 4 hrs
EGN 3420 Engineering Analysis 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
PHY 3101 Physics for Engineers \& Scientists III 3 hrs
EEL 3122C Electrical Networks 4 hrs
EEL 3306 Semiconductor Devices I 3 hrs
EEL 3307C Electronics I 4 hrs
EEL 3342C Intro to Digital Circuits \& Systems 3 hrs
EEL 3470 Electromagnetic Fields 3 hrs

| EEL 3552C | Signal Analysis and Communications | hrs |
| :--- | :--- | :---: |
| EEL 3657 | Linear Control Systems | 3 hrs |
| EEL 3801C | Intro to Computer Engineering | 3 hrs |
| EEL 4309C | Electronics II | 4 hrs |
| EEL 4750 | Digital Signal Processing Fund. | 3 hrs |
| EEL 4767C | Computer System Design I | 4 hrs |

## 4. Approved Technical Electives

Technical electives are available in the BSEE program to address specific student interests in a variety of technical areas. For those students with a declared interest in wireless communication, a concentration in this area if available by taking the following technical electives in addition to the required communication courses listed in 3 . above.

EEL 4512 Communication Systems 4 hrs
EEL 5555C RF and Microwave Communications 3 hrs
EEL 5513 Digital Signal Processing Apps or
EEL 5462C Antenna Analysis and Design 3 hrs

## 5. Departmental Graduation Requirements <br> (6 hrs)

EEL 4914 Senior Design I 3 hrs

EEL 4915L Senior Design II 3 hrs

- COECS encourages all engineering students to take the Engineering Intern Exam during their Senior year.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 7. University Minimum Graduation Requirements

A 2.0 UCF GPA.

60 semester hours earned after any CLEP award.
48 semester hours of upper division credit completed.
32 semester hours of regular courses completed at UCF.
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted.

- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit.


## Total Semester Hours Required: 128 hrs

Related Programs: Computer Engineering, Computer Science, Electrical Engineering Technology (Electrical Systems Concentration).

## Related Minors: <br> none

## Transfer Notes:

Courses taken from Community Colleges do not substitute for Upper Division Courses
Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information with his/her petition for this evaluation.

## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Electrical Engineering - Wireless Communication Concentration <br> 128 semester hours required

## FIRST YEAR

12 hrs ${ }^{1,3}$ Spring
15 hrs $\mathbf{1 , 3}$
*ENC 1101 English Comp I ..... 3
*ENC 1102 English Comp II ..... 3
*CHS 1440 Chem for Engrs 4 *SPC 1016 Tech Presentations ..... 3
*MAC 2281 Calc Sci \& Eng I 4 *MAC 2282 Calc Sci \& Eng II ..... 4
*PHY 2048/L Phys Eng I w/lab ..... 4
Summer ..... 11 hrs ${ }^{1}$
*Cult \& Hist Foundations 1a ..... 3
*MAC 2283 Calc Sci \& Eng III ..... 4
*PHY 2049 Phys for Engr/Sci II ..... 3
*PHY 2049L Phys Lab En/Sci II 1
SECOND YEAR
Fall 15 hrs ${ }^{1}$ Spring ..... 16 hrs ${ }^{1}$
*MAP 2302 Diff Equations 3 *Cult \& Hist Foundations 2 ..... 3
*PHY 3101 Phys Engr/Sci III 3 EGN 3310 Engr Anal-Statics ..... 3
*Science Foundations 2 3 EGN 3373 Prin of Elec Engr 4 *Social Foundations 1
3 EEL 3342C Intro to Dig Circ/Sys3
EGN 3420 Engineering Anal ${ }^{2}$ 3 EEL 3801C Intro to Cmptr Engr ${ }^{2} 3$
Summer ..... 6 hrs ${ }^{1}$
*Cult \& Hist Foundations 1b ..... 3
*ECO 2013 or ..... 3ECO 2023 Prin of Econ I, II
THIRD YEAR
Fall 14 hrs Spring ..... 13 hrs
EEL 3306 Semicond Devices I 3 EEL 3307C Electronics I ..... 4
STA 3032 Prob \& Stats for Engr 3 EEL 3657 Linear Control Sys ..... 3

EGN 3358 Ther-Flds-Ht Transfer

## FOURTH YEAR

| Fall | 14 hrs | Spring | 13 hrs |
| :--- | :---: | :---: | :---: |
| EEL 3552C Sig Anal\&Comm | 4 | EEL 4512C Comm Systems | 4 |
| EEL 3470 Electromagnetic Flds | 3 | EEL 5555C RF \& Microwave | 3 |
| EEL 4309C Electronics II | 4 | EEL 4915C Senior Design II | 3 |
| EEL 4914 Senior Design I | 3 | EEL 5513 Dig Sig Proc Apps | 3 |

EEL 5462C Ant Anal \& Design

## Notes:

1. Courses marked with an asterisk (*) are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.
2. Assumes knowledge of a higher level programming language (C preferred).
3. EGN 1006 and EGN 1930 are required courses for incoming freshmen only. The credits for these two courses (one hour each) may, with prior approval of the department academic advisor, be moved to the area
4. Approved Technical Electives.

## Integrated BS/MS Degree Program

The Electrical Engineering program offers the Integrated BS/MS program to students of high academic standing. This program will accept up to six graduate hours for those taking a non-thesis option. They will accept three graduate hours for students completing a thesis option degree. See advisor for appropriate substitutions.

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## ELECTRICAL ENGINEERING TECHNOLOGY - COMPUTER SYSTEMS CONCENTRATION (B.S.E.E.T.)

## College of Engineering and Computer Science

Engineering Technology (ENT) Department
ENGR 207
Coordinator: Alireza Rahrooh
407-823-2156 Fax: 407-823-5483
E-mail: rahrooh@pegasus.cc.ucf.edu
Web Address: http://www-ent.engr.ucf.edu

## Admission Requirements

none

## Degree Requirements

- Students should check with their ENT faculty advisor frequently to insure that they are making proper progress toward the degree.
- A grade of "C" (2.0) or better is required in all prerequisites.

1. UCF General Education Program
A. Communication Foundations

Take ENC 1101, ENC 1102
Prefer SPC 1016
B. Cultural and Historical Foundations
C. Mathematical Foundations

1. MAC 1105

9 hrs
2. CGS 1060C or STA $2014 C$ ..... 3 hrs
D. Social Foundations ..... 6 hrsE. Science Foundations

1. BSC $1005 \& L, B S C 1050 \& L$, or GEO $1200 \& L$ ..... 4 hrs
2. PHY $2053 C$ ..... 4 hrs
3. Common Program Prerequisites (CPP) MAC 2253 or MAC 2311 Calculus I ..... 3/4 hrs MAC 2254 or MAC 2312 Calculus II 3/4 hrs PHY 2053C or PHY 2048/L Physics I/Lab ..... GEP

| 3. Engineering Technology Core Requirements | (27/28 hrs) |  |
| :--- | :--- | :---: |
| BSC 1005/L, BSC 1050/L, GEO 1200/L | GEP |  |
| ENC 3241 | Writing for the Technical Professional | 3 hrs |
| MAC 1105 | College Algebra | GEP |
| MAC 1114 | College Trigonometry | 3 hrs |
| MAC 2253 or | MAC 2311 Calculus I | CPP |
| MAP 3401 | Problem Analysis or | 3 hrs |
| MAC 2312 | Calculus II | 4 hrs |
| PHY 2053C | College Physics I | CPP |
| PHY 2054C | College Physics II | 4 hrs |
| ETG 3541 | Applied Mechanics | 3 hrs |
| ETI 3651C | Computer Applications | 3 hrs |
| ETI 3671 | Technical Economic Analysis | 2 hrs |
| ETI 3116 | Applied Engrng Quality Assurance | 3 hrs |
| ETI 4635 | Technology Administration | 3 hrs |

## 4. Technical Specialization

| Lower Level Required and Elective Courses | (17 hrs) |  |
| :--- | :--- | :---: |
| CET 2123C | Microprocessor Electronics I | 3 hrs |
| CET 3323C | Digital Technology | 4 hrs |
| CET 2364 | System Applications in C | 3 hrs |
| EET 3085C | Electricity and Electronics | 4 hrs |
| Approved Lower Level Technical Electives | 3 hrs |  |
| Upper Level Required Courses | $\mathbf{( 3 0 ~ h r s )}$ |  |
| CET 3198C | Digital Systems | 3 hrs |
| CET 3503 | Microcomputer Technology I | 3 hrs |
| CET 3383 | Applied Systems Analysis I | 3 hrs |
| CET 4333 | Computer Organization \& Design | 3 hrs |
| CET 4427 | Applied Database I | 3 hrs |
| CET 4505 | Applied Operating Systems I | 3 hrs |
| CET 4523 | Applied Systems Analysis II | 3 hrs |
| CET 4138C | Digital Programmable Devices | 3 hrs |
| CET 4134C | Microprocessor Elec II | 3 hrs |
| CET 4429 | Applied Database II | 3 hrs |
| Upper Level Technical Electives | $\mathbf{( 8 - 1 0 ~ h r s ) ~}$ |  |

See faculty advisor for list of approved Technical Electives.

## 5. Departmental Exit Requirement

ETG 4950C Senior Design Project
(3 hrs)
3 hrs

- A grade of 2.0 or better is required in all prerequisites.


## 6. Foreign Language Requirements

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## 7. Approved Technical Electives

Students should consult with the ENT Department for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 8. University Graduation Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
32 semester hours of regular courses completed at UCF

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted
- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## Total Semester Hours Required:

128 hours

Related Programs: Electrical Engineering Technology (Electrical Systems Concentration)

## Related Minors:

none

## Transfer Notes:

Students transferring from any Florida public institution with an AA degree or with the general education program (GEP) requirements of that institution met have thereby satisfied UCF GEP requirements.

- Students entering a UCF undergraduate program and having a previously earned baccalaureate degree from an accredited institution have thereby satisfied UCF GEP requirements. (See also the section on the GEP found elsewhere in this catalog.)
- Courses taken from Community Colleges do not substitute for Upper Division Courses
- Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information to the ENT Department for this evaluation.

ENT Departmental Residency Requirements consist of at least 32 semester hours of regularly-scheduled 3000 or 4000 level courses taken from the UCF ENT Department

PHY 2048/L can substitute for PHY 2053C.

## Tentative Course Schedule for the Computer Systems Concentration

The tentative course schedule listed below is a guide for those students who plan on completing their upper division engineering technology degree requirements in two years. Many students choose to spread out these requirements over a longer period of time. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Junior Year

| Fall | $\mathbf{1 3 / 1 4} \mathbf{~ h r s}$ | Spring | $\mathbf{1 2 ~ h r s ~}$ |
| :--- | :--- | :--- | :--- |
| MAC |  |  |  |
| 2253/2311 Calculus I | $3 / 4$ | MAP 3401 Problem Analysis | 3 |
| PHY 2053/2048 Physics I | 4 | ETG 3541 Appl Mechanics | 3 |
| ETI 3116 App Eng Quality Assur3 CET 3383 Appl Sys Anal I | 3 |  |  |
| CET 3198C Digital Systems | 3 | CET 4134 Micro Elec II | 3 |

Summer $\quad 10 \mathrm{hrs}$
CET 4523C Appl Sys Anal II 3
CET 4333 Computer Org 3
CET Elective 4

## Senior Year

Fall 16 hrs Spring 14 hrs

PHY 2054/2049 Physics II
CET 4427 Appl Data Base I
CET 4505 Appl Oper Sys I
ETI 3651C Computer Appl
CET Elective

4 ETG 4950C Senior Design Proj3
3 CET 4138C Dig Prog Dev ..... 3
3 ETI 3671 Tech Econ Anal ..... 2
3 ETI 4635 Tech Admin ..... 3
3 CET Elective ..... 3

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## College of Engineering and Computer Science

Engineering Technology (ENT) Department
ENGR 207
Coordinator: Alireza Rahrooh
407-823-2156 Fax: 407-823-5483
E-mail: rahrooh@pegasus.cc.ucf.edu
Web Address: http://www-ent.engr.ucf.edu

## Admission Requirements

none

## Degree Requirements

- Students should check with their ENT faculty advisor frequently to ensure that they are making proper progress toward the degree.
- A grade of "C" (2.0) or better is required in all prerequisites.

1. UCF General Education Program
A. Communication Foundations

Select ENC 1101, 1102
Prefer SPC 1016
B. Cultural and Historical Foundations
C. Mathematical Foundations

1. MAC 1105
(38 hrs)
9 hrs
2. CGS 1060C or STA $2014 C$ ..... 3 hrs
D. Social Foundations ..... 6 hrsE. Science Foundations
3. BSC $1005 \& L, B S C 1050 \& L$, or GEO $1200 \& L$ ..... 4 hrs
4. PHY $2053 C$ ..... 4 hrs
5. Common Program Prerequisites (CPP) MAC 2253 or MAC 2311 Calculus I ..... 3/4 hrs
MAC 2254 or MAC 2312 Calculus II ..... 3/4 hrs PHY 2053C or PHY 2048/L Physics I/Lab GEP
6. Engineering Technology Core Requirements ..... (27/28 hrs)
BSC 1005/L, BSC 1050/L, GEO 1200/L ..... GEP
ENC 3241 Writing for the Technical Professional 3 hrsMAC 1105 College Algebra GEPMAC 1114 College Trigonometry 3 hrs
MAC 2253 or MAC 2311 Calculus I CPP
MAP $3401 \quad$ Problem Analysis or 3 hrs
MAC 2312 Calculus II 4 hrs
PHY 2053C College Physics I ..... CPP
PHY 2054C College Physics II ..... 4 hrs
ETG 3541 Applied Mechanics ..... 3 hrs
ETI 3651C Computer Applications ..... 3 hrs
ETI 3671 Technical Economic Analysis ..... 2 hrs
ETI 3116 Applied Engnrng Quality Assurance ..... 3 hrs
ETI 4635 Technology Administration 3 hrs

## 4. Technical Specialization

| Lower Level Required and Elective Courses | (26 hrs) |  |
| :--- | :--- | :---: |
| CET 2123C | Microprocessor Electronics I | 3 hrs |
| CET 2XXXC | Digital Fundamentals | 4 hrs |
| CET 2364 | System Applications in C | 3 hrs |
| EET 2XXXC | Analog Devices or | 8 hrs |
| EET 3143C | Electronic Devices and Circuits | 4 hrs |
| EET 2025C | Electrical Circuits | 4 hrs |
| EET 3085C | Electricity and Electronics | 4 hrs |
| Approved Lower Level Technical Elective | $0-4 \mathrm{hrs}$ |  |
| Upper Level Required Courses | $\mathbf{( 2 1 ~ h r s )}$ |  |
| CET 3198C | Digital Systems | 3 hrs |
| CET 3503 | Microcomputer Technology I | 3 hrs |
| CET 4134C | Microprocessor Electronics II | 3 hrs |
| EET 3716 | Network Analysis | 3 hrs |
| EET 4158C | Linear Integrated Circuits | 3 hrs |
| EET 4548 | Power Systems | 3 hrs |
| EET 4732C | Feedback Control Systems | 3 hrs |
| Upper Level Technical Electives | $\mathbf{( 8 - 1 0 ~ h r s ) ~}$ |  |


| Select 8-10 hours from courses listed below: |  |  |
| :--- | :--- | :---: |
| CET 4138C | Digital Programmable Devices | 3 hrs |
| CET 4333 | Computer Organization \& Design | 3 hrs |
| CET 4931 | Current Topics in Tech | 3 hrs |
| EET 4329C | Communication Systems | 4 hrs |
| EET 4339C | Antennas and Propagation | 3 hrs |
| EET 4359C | Digital Communications | 4 hrs |

## 5. Departmental Exit Requirement

ETG 4950C Senior Design Project
(3 hrs)
3 hrs

A grade of 2.0 or better is required in all prerequisites.

## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or
one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.
Graduation: none

## 7. Approved Technical Electives

(0-4 hrs)
Students should consult with the ENT Department for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 8. University Minimum Graduation Requirements

- A 2.0 UCF GPA

60 semester hours earned after any CLEP award 48 semester hours of upper division credit completed

32 semester hours of regular courses completed at UCF
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted

- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## Total Semester Hours Required:

 128 hoursRelated Programs: Electrical Engineering Technology (Computer Systems Concentration).

Related Minors:
none

## Transfer Notes:

Students transferring from any Florida public institution with an AA degree or with the general education program (GEP) requirements of that institution met have thereby satisfied UCF GEP requirements.

- Students entering a UCF undergraduate program and having a previously earned baccalaureate degree from an accredited institution have thereby satisfied UCF GEP requirements. (See also the section on the GEP found elsewhere in this catalog.)

Courses taken from Community Colleges do not substitute for Upper Division Courses.
Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information to the ENT Department for this evaluation.

ENT Departmental Residency Requirements consist of at least 32 semester hours of regularly-scheduled 3000 or 4000 level courses taken from the UCF ENT Department.

PHY 2048/L can substitute for PHY 2053C.

## Tentative Course Schedule for the Electrical Systems Concentration

The tentative course schedule listed below is a guide for those students who plan on completing their upper division engineering technology degree requirements in two years. Many students choose to spread out these requirements over a longer period of time. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Junior Year


Senior Year
Fall
15 hrs Spring13 hrs
EET 4548 Power Systems 3 ETG 4950C Sr. Design Proj ..... 3
PHY 2054/2049 Physics II 4 CET/EET Approved Elective ..... 4
ETI 3116 App Eng Quality Assur3 ETI 4635 Tech Admin ..... 3
CET/ EET Approved Elective 3 ENC 3241 Writing Tech Pros ..... 3
ETI 3671 Tech Econ Anal ..... 2

ELECTRICAL ENGINEERING TECHNOLOGY (BSEET)

## AS to BSEET CONCENTRATION

(Completion program for individuals who have a statewide articulated AS degree from a Florida public community college)

College of Engineering and Computer Science
Engineering Technology (ENT) Department
UCF Research Pavilion Building, Suite 493
Coordinator: Alireza Rahrooh
407-823-2156, Fax: 407-823-5483
E-mail: rahrooh@pegasus.cc.ucf.edu
Web Address: http://www-ent.engr.ucf.edu

## Admission Requirements

Completion of a Statewide Articulated A.S. in Electrical Engineering Technology from a Florida Public Community College which is composed of 68 hours of course work, including at least 22 hours of transferable general education courses.

## Degree Requirements

Students should check with their ENT faculty advisor frequently to ensure that they are making proper progress toward the degree.

- A grade of "C" (2.0) or better is required in all prerequisites.


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations 3 hrs
C. Mathematical Foundations 4 hrs MAC 2253
D. Science Foundations 4 hrs

Select PHY 2049 and PHY 2049L or PHY 2054C
2. Common Program Prerequisites (CPP)

MAC 2311 or MAC 2253
MAC 2312 or MAC 2254 or equivalent PHY 2048 and PHY 2048L or PHY 2053C

| 3. Engineering Technology Core Requirements | (21 hrs) |  |
| :--- | :--- | :---: |
| ETG 3541 | Applied Mechanics | 3 hrs |
| ETI 3651C | Computer Applications | 3 hrs |
| ETI 3671 | Technical Economic Analysis | 2 hrs |
| ETI 4635 | Technology Administration | 3 hrs |
| ETI 3116 | Engineering Quality Assurance | 3 hrs |
| ENC 3241 | Technical Report Writing | 3 hrs |
| BSC 1005/L or BSC 1050/L | 4 hrs |  |

## 4. Upper Level Required Courses

CET 3198C Digital Systems
CET 3503 Microcomputer Technology I 3 hrs

CET 4134C Microprocessor Electronics II 3 hrs
EET 3716 Network Analysis 3 hrs
EET 4158C Linear Integrated Circuits 3 hrs
EET $4548 \quad$ Power Systems 3 hrs

EET 4732C Feedback Control Systems 3 hrs

GEP
4 hrs
GEP

4 hrs

3 hrs

## 5. Upper Level Technical Electives

(3 hrs)
Select three hours from the following:
CET 3144C Applied Microprocessor Technology 3 hrs
CET 4138C Digital Programmable Devices 3 hrs
CET 4333 Computer Organization \& Design 3 hrs
EET 4329C Communication Systems 3 hrs
EET 4359C Digital Communications 4 hrs

## 6. Departmental Exit Requirement

ETG 4950C Senior Design Project
(3 hrs)
3 hrs

A grade of 2.0 or better is required in all prerequisites.

## 7. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 8. University Minimum Graduation Requirements

- A 2.0 UCF GPA

60 semester hours earned after any CLEP award 48 semester hours of upper division credit completed

33 semester hours of regular courses completed at UCF
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted

- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)

Related Programs: Electrical Engineering Technology (Electrical Systems Concentration).

## Related Minors: <br> none

## Transfer Notes:

- Students transferring from any Florida public institution with an AA degree or with the general education program (GEP) requirements of that institution met have thereby satisfied UCF GEP requirements.
- ENT Departmental Residency Requirements consist of at least 33 semester hours of regularly-scheduled 3000 or 4000 level courses taken from the UCF ENT Department.
- PHY 2048/L can substitute for PHY 2053C.


## ELEMENTARY EDUCATION (B.S.)

## College of Education

Department of Instructional Programs and Educational Leadership, ED346, 407-823-2939
Co-Coordinator: Enrique Ortiz, ED224-08, 407-823-5222,
E-mail: ortiz@mail.ucf.edu
Co-Coordinator: Cyndee Hutchinson, ED 204, 407-823-3532
E-mail: hutchins@pegasus.cc.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university
- Have a minimum 2.5 overall GPA

Pass four parts of the CLAST examination (no alternatives are accepted)

- Complete prerequisite courses


## Degree Requirements

- Students should consult with an advisor
- The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

(9 hrs)

## A. Communication Foundations

ENC 1101 Composition I

| ENC 1102 Composition II | 3 hrs |  |
| :--- | :--- | :---: |
| SPC 1600C | Fundamentals of Oral Communication | 3 hrs |
| B. Cultural-Historical Foundations* | $(9 \mathrm{hrs})$ |  |
| AMH 2010 | U.S. History 1492-1877 | 3 hrs |
| AMH 2020 | U.S. History 1877-Present | 3 hrs |
| PHI 2010 | Introduction to Philosophy | 3 hrs |
| C. Mathematical Foundations* | $(6 \mathrm{hrs})$ |  |
| MGF 1106 | Finite Mathematics | 3 hrs |
| Select one: |  |  |
| STA 1060C | Basic Statistics using MS Excel or | 3 hrs |
| STA 2014C | Principles of Statistics | 3 hrs |
| D. Social Foundations | $(6 \mathrm{hrs})$ |  |
| POS 2041 | American National Government | 3 hrs |
| PSY 2013 | General Psychology | 3 hrs |
| E. Science Foundations | $(6 \mathrm{hrs})$ |  |
| PSC 1121 | Physical Science | 3 hrs |
| Select one: |  | 3 hrs |
| ANT 2511 | The Human Species or |  |
| BSC 1005 | Biological Principles |  |
| Prs |  |  |

Note: See laboratory component under Section 2.

## 2. Common Program Prerequisites <br> (25 hrs)

A. Communications

ENC 1101 Composition I
ENC 1102 Composition II
(9 hrs)
GEP
GEP
SPC 1600C Fundamentals of Oral Communication GEP
B. Humanities
(6 hrs)
PHI 2010 Introduction to Philosophy
GEP

ARH 2050 The History of Art I or
ARH 2051 The History of Art II or
MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
THE 2071C Cinema Survey
C. Mathematics

MAC 1105 College Algebra (9 hrs)

MGF 1106 Finite Mathematics

## GEP

One of the following (per GEP) GEP

STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History

GEP
AMH 2020 U.S. History 1877-Present
POS 2041 American National Government
PSY 2013 General Psychology
E. Science

PSC 1121 Physical Science
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Select one:
AST 2002 Astronomy or
GEO 1200 Physical Geography or
GLY 1030 Geology and its Applications
Select one associated science lab:
U.S. History 1492-1877

## GEP

3 hrs
GEP
GEP
( $9 \mathrm{hrs}+\mathrm{lab}$ )
GEP
GEP

BSC 1005L Biological Principles Laboratory or
GEO 1200L Physical Geography Laboratory or

PSC 1121L Physical Science Laboratory

## F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations
EME 2040 Intro to Educational Technology 3 hrs
G. Diversity Courses
H. Other Program Prerequisites
(9 hrs)
3 hrs
3 hrs

GEP
(6 hrs)

Students must select an additional six hours in courses
in the following liberal arts and sciences areas:
communications, mathematics, natural and/or physical
sciences, fine arts and/or humanities, and social sciences.

## 3. Education Preprofessional Requirements

MAE 2801 Elementary School Mathematics 4 hrs

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to 2000-01, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 4. Specialization Requirements

The Elementary Education teacher instructs children in a variety of academic subjects. Students majoring in Elementary Education take a series of core and specialization courses to prepare them to teach in the elementary school and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Elementary Education major's program and to integrate theory and practice in actual school settings. Throughout the Elementary Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 5. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 6. Foreign Language Requirements

 (0-8 hrs)State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 7. Departmental Exit Requirements

Achieve a minimum 2.5 GPA in all courses within the major.
Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

- Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.


## 8. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 9. Total Semester Hours Required

## To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.

ENGINEERING TECHNOLOGY - DESIGN CONCENTRATION (B.S.E.T.)

College of Engineering and Computer Science
Engineering Technology (ENT) Department
ENGR 207
Coordinator: Lucy Morse 407-275-4349, Fax: 407-823-5483
Web Address: http://www-ent.engr.ucf.edu

Admission Requirements
none

## Degree Requirements

- Students should check with their ENT faculty advisor frequently to insure that they are making proper progress toward the degree.
- A grade of "C" (2.0) or better is required in all prerequisites.


## 1. UCF General Education Program

A. Communication Foundations 9 hrs

1. ENC 1101, ENC 1102
2. Prefer SPC 1016
B. Cultural and Historical Foundations
C. Mathematical Foundations
3. MAC 1105
4. CGS 1060C or STA 2014C
D. Social Foundations
E. Science Foundations
(38 hrs)

9 hrs

3 hrs
3 hrs
6 hrs

| 1. PHY 2053C | 4 hrs |
| :--- | :--- |
| 2. BSC $1005 \& L$, BSC $1050 \& L$, or GEO 1200\&L | 4 hrs |

2. Common Program Prerequisites (CPP) ..... (6/8 hrs)
MAC 2253 or MAC 2311 Calculus I ..... 3/4 hrsMAC 2254 or MAC 2312 Calculus IIPHY 2053C or PHY 2048/L Physics I/Lab$3 / 4 \mathrm{hrs}$GEP
3. Engineering Technology Core Requirements ..... (23-24 hrs)
ANT 2511, BSC 1005, BSC 1050, GEO 1200,GEP
ENC 3241 Writing for the Technical Professional 3 hrs
MAC 1105 College Algebra ..... GEP
MAC 1114 College Trigonometry ..... 3 hrs
MAC 2253 or MAC 2311 Calculus I ..... CPP
MAP 3401 Problem Analysis or ..... 3 hrs
MAC 2312 Calculus II ..... 4 hrs
PHY 2053C College Physics I CPP
ETG 3541 Applied Mechanics ..... 3 hrs
ETI 3651C Computer Applications 3 hrsETI 3671 Technical Economic Analysis 2 hrs
ETI 3116 Applied Engnrng Quality Assurance ..... 3 hrs
ETI 4635 Technology Administration ..... 3 hrs
4. Technical Specialization(61 hrs)
Lower Level Required and Elective Courses( 28 hrs )
CET 2123C Microprocessor Electronics I ..... 3 hrs
CHM 1032, 1032L General Chemistry, Lab ..... 4 hrs

| CET 2364 | Systems Applications in C | 3 hrs |
| :---: | :---: | :---: |
| EET 3085 | Electricity and Electronics | 4 hrs |
| EGN 1111C | Engr Computer Graphics | 2 hrs |
| Approved Lower Level Technical Electives |  | 12 hrs |
| Upper Level Required Courses |  | (18 hrs) |
| EST 4502C | Metrology \& Instrumentation | 4 hrs |
| ETD 3350C | Applied CADD | 3 hrs |
| ETG 3533C | Applied Engnrng Strength of Mate | s 4 hrs |
| ETI 3421 | Materials \& Processes | 3 hrs |
| ETM 4220 | Applied Energy Systems | 4 hrs |
| Upper Level Technical Elective (Select 5) |  | (15 hrs) |
| ETC 4206 | Construction Estimating | 3 hrs |
| ETC 4241C | Construction Materials \& Methods | 3 hrs |
| ETC 4242 | Construction Contracts \& Specs | 3 hrs |
| ETC 4243 | Building Systems | 3 hrs |
| ETC 4414C | Applied Structural Design I | 3 hrs |
| ETC 4415C | Applied Structural Design II | 3 hrs |
| ETM 4331C | Applied Fluid Mechanics | 4 hrs |
| ETM 4512C | Applied Design of Machine Elemen | 3 hrs |
| ETI 3418C | Computer Numerical Controls | 3 hrs |
| ETI 4448 | Applied Project Management | 3 hrs |

## 5. Departmental Graduation Requirement (3 hrs) <br> ETG 4950C Senior Design Project 3 hrs

- A grade of 2.0 or better is required in all prerequisites.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## 7. Approved Technical Electives

Students should consult with the ENT Department for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 8. University Minimum Graduation Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
32 semester hours of regular courses completed at UCF
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted

- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## Total Semester Hours Required

## 128 hours

Related Programs: Engineering Technology (Operations Concentration).
Related Minors: none

## Transfer Notes:

Students transferring from any Florida public institution with an AA degree or with the general education program (GEP) requirements of that institution met have thereby satisfied UCF GEP requirements.

- Students entering a UCF undergraduate program and having a previously earned baccalaureate degree from an accredited institution have thereby satisfied UCF GEP requirements. (See also the section on the GEP found elsewhere in this catalog.)
- Courses taken from Community Colleges do not substitute for Upper Division Courses.
- Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information to the ENT Department for this evaluation.

ENT Departmental Residency Requirements consist of at least 32 semester hours of regularly-scheduled 3000 or 4000 level courses taken from the UCF ENT Department.

PHY 2048/L and 2049/L substitute for PHY 2053C and PHY 2054C respectively.

## Tentative Schedule for the Design Concentration

The tentative course schedule listed below is a guide for those students who plan on completing their upper division engineering technology degree requirements in two years. Many students choose to spread out these requirements over a longer period of
time. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Junior Year

Fall 13/14 hrs Spring 14 hrs

MAC 2353/2311 Calculus I 3/4 MAP 3401 Problem Analysis 3
ETG 3541 Appl Mechanics 3 ETM 4220 Energy Systems 4
ETI 3116 App Eng Qual Assur PHY 2053/2048 Physics I

4 ETD 3350C Appl CAD

10 hrs
ETC 4414C App Struct Des I 3
ETM 4331C Appl Fluid Mech 4
ETI 3651C Computer Appl 3

## Senior Year

Fall 15 hrs Spring 15 hrs

ETI 3421 Materials \& Processes 3 EST 4502C Metro I Instr 4 ETC 4415C App Struct Des II 3 ETG 4950C Sr Design Proj 3 ETM 4512C App Des Mach Ele 3 ETC 4242 Contract \& Spec 3 ETC 4241C Construction Meth 3 ETI 4635 Tech Admin 3 ENC 3241 Tech Report Writ 3 ETI 3671 Tech Econ Anal 2

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(407) 823-2000

# ENGINEERING TECHNOLOGY - OPERATIONS CONCENTRATION (B.S.E.T.) 

## College of Engineering and Computer Science

Engineering Technology (ENT) Department
ENGR 207
Coordinator: Lucy Morse
407-275-4349, Fax: 407-823-5483
Web Address: http://www-ent.engr.ucf.edu

## Admission Requirements

none

## Degree Requirements

- Students should check with their ENT faculty advisor frequently to insure that they are making proper progress toward the degree.
- A grade of "C" (2.0) or better is required in all prerequisites.


## 1. UCF General Education Program

A. Communication Foundations

1. ENC 1101, ENC 1102
2. Prefer SPC 1016
B. Cultural and Historical Foundations

9 hrs
C. Mathematical Foundations

1. MAC 1105
2. CGS 1060C or STA 2014C
D. Social Foundations

6 hrs

| 1. PHY 2053C | 4 hrs |
| :--- | :--- |
| 2. BSC $1005 \& L, B S C ~ 1050 \& L$, or GEO $1200 \& L$ | 4 hrs |

2. Common Program Prerequisites (CPP)

MAC 2253 or MAC 2311 Calculus I $3 / 4 \mathrm{hrs}$
MAC 2254 or MAC 2312 Calculus II 3/4 hrs
PHY 2053C or PHY 2048/L Physics I/Lab
3. Engineering Technology Core Requirements (23-24 hrs)

ANT 2511, BSC 1005, BSC 1050, GEO 1200,
GEO 2370, or GLY 1030

## GEP

ENC 3241 Writing for the Technical Professional 3 hrs
MAC 1105 College Algebra GEP
MAC $1114 \quad$ College Trigonometry 3 hrs
MAC 2353 or MAC 2311 Calculus I CPP
MAP $3401 \quad$ Problem Analysis or 3 hrs
MAC 2312 Calculus II 4 hrs
PHY 2053C College Physics I CPP
ETG 3541 Applied Mechanics 4 hrs
ETI 3651C Computer Applications 3 hrs
ETI 3671 Technical Economic Analysis 2 hrs
ETI 3116 Applied Engineering Quality Assurance3 hrs
ETI 4635 Technology Administration 3 hrs

## 4. Technical Specialization

Lower Level Required and Elective Courses
(61 hrs)

CET 2123C Microprocessor Electronics I

| CHM 1032, 1032L General Chemistry, Lab | 4 hrs |  |
| :--- | :---: | ---: |
| CET 2364 | Systems Applications in C | 3 hrs |
| EET 3085C | Electricity and Electronics | 4 hrs |
| EGN 1111C | Engr Computer Graphics | 2 hrs |
| Approved Lower Level Technical Electives | 12 hrs |  |
| Upper Level Required Courses | (18 hrs) |  |
| EST 4502C | Metrology \& Instrumentation | 4 hrs |
| ETD 3350C | Applied CADD | 3 hrs |
| ETG 3533C | Applied Engnrng Strength of Materials 4 hrs |  |
| ETI 3421 | Materials \& Processes | 3 hrs |
| ETM 4220 | Applied Energy Systems | 4 hrs |
| Upper Level Technical Elective (Select 5) | (15 hrs) |  |
| ETI 3690 | Technical Sales | 3 hrs |
| ETI 4186 | Applied Reliability | 3 hrs |
| ETI 4205 | Applied Logistics | 3 hrs |
| ETI 4640 | Process Planning \& Work Measrmnt | 3 hrs |
| ETI 4661C | Applied Facilities Planning \& Design 3 hrs |  |
| ETI 4700 | Occupational Safety | 3 hrs |
| ETM 4331C | Applied Fluid Mechanics | 4 hrs |
| ETI 3418C | Computer Numerical Controls | 3 hrs |
| ETI 4448 | Applied Project Management | 3 hrs |
| 5. Departmental | Graduation Requirement | (3 hrs) |
| ETG 4950C | Senior Design Project | 3 hrs |
| A grade of 2.0 or better is required for all prerequisites. |  |  |

## 6. Foreign Language Requirements <br> (0-8 hrs)

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## 7. Approved Technical Electives

Students should consult with the ENT Department for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 8. University Minimum Graduation Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
32 semester hours of regular courses completed at UCF

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted
- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## Total Semester Hours Required

128 hours

Related Programs: Engineering Technology (Operations Concentration).

## Related Minors:

none

## Transfer Notes:

- Students transferring from any Florida public institution with an AA degree or with the general education program (GEP) requirements of that institution met have thereby satisfied UCF GEP requirements.
- Students entering a UCF undergraduate program and having a previously earned baccalaureate degree from an accredited institution have thereby satisfied UCF GEP requirements. (See also the section on the GEP found elsewhere in this catalog.)
- Courses taken from Community Colleges do not substitute for Upper Division Courses.
- Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information to the ENT Department for this evaluation.

ENT Departmental Residency Requirements consist of at least 32 semester hours of regularly scheduled 3000- or 4000-level courses taken from the UCF ENT Department.

PHY 2048/L and 2049/L substitute for PHY 2053C and PHY 2054C respectively.

## Tentative Course Schedule for the Operations Concentration

The tentative course schedule listed below is a guide for those students who plan on completing their upper division engineering technology degree requirements in two years. Many students choose to spread out these requirements over a longer period of time. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Junior Year

| Fall $13 / \mathbf{1 4}$ hrs | Spring | $\mathbf{1 3} \mathbf{~ h r s}$ |  |  |
| :--- | :---: | :---: | :---: | :---: |
| MAC 2253/2311 Calculus I | $3 / 4$ | MAP 3401 Problem Analysis | 3 |  |
| PHY 2053/2048 Physics I | 4 | ETG 3541 Mechanics | 3 |  |
| ETI 3116 App Eng Qual Assur | 3 | ETM 4220 Energy Systems | 4 |  |
| ETI 4640 Proc Plan \& Sch | 3 | ETI 4186 Appl Reliability | 3 |  |

## Summer

ETI 4700 Occup Safety 10 hrs

ETI 4635 Tech Admin 3
ETM 4331C Appl Fluid Mech
4

## Senior Year

Fall 14 hrs
ETI 3421 Matrls \& Process
ETI 4205 App Logistics
ETD 3350C Appl CAD
ETI 3651C Computer Appl
ETI 3671 Tech Econ Anal

2

3 EST 4502C Metro I Instr 4
3 ETG 3533C Eng Strength Mat'ls 4
ENC 3241 Tech Report Writ 3
3 ETG 4590 Sr Design Proj 3

Spring
14 hrs

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ENGLISH - CREATIVE WRITING (B.A.)

College of Arts and Sciences<br>English Department, CNH 301,<br>E-mail: english@ucf.edu<br>D. Trouard, 407-823-2212

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog Students must earn at least a "C" (2.0) in each required course

Co-op or internship credit can not be used in the major without prior approval from the department

- Students should consult with a departmental advisor
- Departmental Residency Requirement consists of at least 15 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF English Department
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## Honors in English Degree: Additional Requirements (9 hrs)

Application and admission through the English Honors Committee
Fulfill University requirements for Honors in the Major
Grade of "B" (3.0) or better in 5000 level English elective (3 hrs), Directed Readings (3 hrs), and Thesis hours ( 3 hrs ).

Successful completion and oral defense of honors thesis

1. UCF General Education Program ( 36 hrs )
A. Communication Foundations

Select SPC 1600C Fund of Oral Com 3 hrs
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Prefer STA 1060C Statistics Using Excel
D. Social Foundations
E. Science Foundations

6 hrs

## 2. Common Program Prerequisites

ENC 1101* $\quad$ Composition I
ENC 1102* $\quad$ Composition II
*See Transfer Notes for possible substitutes

## 3. Restricted Electives

Choose two of the following:
ENG 3014 Theory \& Tech of Literary Study
CRW 3013 Creative Writing for English Majors
ENC 3211 Theory \& Practice of Tech Writing
Choose four of the following:
(36 hrs)
6 hrs

12 hrs

ENL 2012 English Literature I
ENL 2021 English Literature II
AML 3031 American Literature I
AML 3051 American Literature II
ENL 4311 Chaucer
ENL 4333 Shakespeare

Any approved literary history course with a prefix of AML, ENL, or LIT; at least one of which focuses entirely on early literature (pre-1865)

Choose one of the following:
LIN 3010 Principles of Linguistics
LIN 4100 History of the English Language
LIN 4680 Modern English Grammar
ENC 3310 Magazine Writing I
ENC 3311 Advanced Expository Writing
ENG 3010 Practical Criticism
LIT 4554 Advanced Feminist Theory
Choose two of the following:
6 hrs
CRW 3120 Fiction Writing Workshop
CRW 3211 Creative Nonfiction Writing
CRW 3310 Poetry Writing Workshop
Choose two of the following: 6 hrs
CRW 4122 Adv Fiction Writing Workshop
CRW 4320 Adv Poetry Writing Workshop
CRW 4224 Adv Creative Nonfiction Writing
Choose one of the following:
3 hrs
CRW 3311 Structure of Verse
CRW 3410 Writing Scripts
CRW 3540 Literary Magazines
CRW 4114 History of Prose Style
Any 3000 or 4000 CRW course not used to fulfill another requirement

## 4. Departmental Exit Requirements

- Maintain a minimum GPA of 2.0 in upper division required courses
- Computer Competency met by completion of CRW 3013


## 5. Foreign Language Requirements

 (0-8 hrs)Admission: Met by graduation requirement
Graduation: Three semesters or equivalent proficiency exam. With departmental approval, a cultural/multicultural or related course offered by the Department of English may be used to satisfy one semester of the Graduation requirement.

## 6. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 7. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: Technical Writing, Literature

Related Minors: Creative Writing, Literature, Linguistics, Technical Writing, Writing

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites to the BA in Creative Writing if taken prior to transferring to UCF:

- ENC 1101* \& 1102*: may use any two lower level courses, taught in the English Department, and each having a 6,000 word requirement. ENC $1101 \& 1102$, however, are prerequisites for all subsequent English courses and will need to be taken for the major.

ENGLISH - LITERATURE (B.A.)

# College of Arts and Sciences <br> English Department, CNH 301, <br> E-mail: english@ucf.edu <br> D. Trouard, 407-823-2212 

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

Students must earn at least a "C" (2.0) in each required course
Co-op or internship credit is not accepted in the major

- Students should consult with a departmental advisor

Departmental Residency Requirement consists of at least 15 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF English Department

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## Honors in English Degree:

Additional Requirements
Application and admission through the English Honors Committee
Fulfill University requirements for Honors in the Major

- Grade of "B" (3.0) or better in 5000 level English elective (3 hrs), Directed Readings (3 hrs), and Thesis hours ( 3 hrs ).


## 1. UCF General Education Program

A. Communication Foundations

Select SPC 1600C Fund of Oral Com
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Prefer STA 1060C Statistics Using Excel
D. Social Foundations
E. Science Foundations 3 hrs

6 hrs 6 hrs

## 2. Common Program Prerequisites

ENC 1101* Composition I
ENC 1102* Composition II
*See Transfer Notes for possible substitutes

## 3. Core requirements

 ( 15 hrs )Choose five literary history courses, two of which must focus entirely on early literature (pre-1865).
Note: Each semester,
additional courses may satisfy this requirement. Check with advisor for details.

| AML 3031 | American Literature I | 3 hrs |
| :--- | :--- | :---: |
| AML 3051 | American Literature II | 3 hrs |
| AML 3614 | Topics in African American Literature | 3 hrs |
| AML 4101 | American Novel | 3 hrs |
| AML 4153 | American Poetry at Mid-Century | 3 hrs |
| AML 4261 | Literature of the South | 3 hrs |
| AML 4265 | Florida Writers | 3 hrs |


| AML 4321 | Modern American Literature | 3 hrs |
| :--- | :--- | :---: |
| ENL 2012 | English Literature I | 3 hrs |
| ENL 2021 | English Literature II | 3 hrs |
| ENL 4101 | English Novel | 3 hrs |
| ENL 4220 | English Renaissance Poetry and Prose | 3 hrs |
| ENL 4240 | English Romantic Writers | 3 hrs |
| ENL 4253 | The Victorian Age: Poetry | 3 hrs |
| ENL 4262 | Nineteenth Century British Prose | 3 hrs |
| ENL 4273 | Modern British Literature | 3 hrs |
| ENL 4230 | Eighteenth Century Studies | 3 hrs |
| LIT 3082 | Continental European Fiction |  |
| Since 1900 |  | 3 hrs |
| LIT 3192 | Caribbean Literature | 3 hrs |
| LIT 4043 | Modern Drama as Literature | 3 hrs |
| LIT 4184 | Irish Literature | 3 hrs |
| LIT 4303 | Post-World War II Fiction | 3 hrs |

## 4. Upper Division Restricted Electives

(21 hrs)
ENG 3014 Theory \& Tech of Literary Study 3 hrs
(This is a prerequisite for all 4000 level AML,
ENG, ENL, or LIT courses)
Choose one of the following gateway courses: 3 hrs
CRW 3013 Creative Writing for English Majors
ENC 3211 Theory \& Practice of Tech Writing
Choose one single author or major author course
3 hrs
Note: Each semester, additional courses may satisfy this requirement. Check with advisor for details.
ENL 4311 Chaucer

Choose one linguistics or theory course: 3 hrs

ENG 3010 Practical Criticism
LIN 3010 Principles of Linguistics
LIN 4100 History of the English Language
LIN 4680 Modern English Grammar
LIT 4554 Advanced Feminist Theory
Choose three upper level courses: 9 hrs
AML, ENL, or LIT prefix

## 5. Departmental Exit Requirements

- Maintain a minimum GPA of 2.0 in upper division required courses.
- Computer Competency met by completion of ENG 3014.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement
Graduation: Three semesters or equivalent proficiency exam. With departmental approval, a cultural/multicultural or related course offered by the Department of English may be used to satisfy one semester of the Graduation requirement.

## 7. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted

Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

## Total Semester Hours Required

## 120 hours

Related Programs: Creative Writing, Technical Writing

Related Minors: Creative Writing, Linguistics, Literature, Technical Writing, Writing

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites to the BA in Literature if taken prior to transferring to UCF:

ENC 1101* \& 1102*: may use any two lower level courses, taught in the English Department, and each having a 6,000 word requirement. However ENC $1101 \& 1102$ are prerequisites for all subsequent English courses and will need to be taken for the major.

## ENGLISH - TECHNICAL WRITING (B.A.)

# College of Arts and Sciences <br> English Department, CNH 301, <br> E-mail: english@ucf.edu <br> D. Trouard, 407-823-2212 

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

Students must earn at least a "C" (2.0) in each required course
Co-op or internship credit can not be used in this major

- Students should consult with a departmental advisor

Departmental Residency Requirement consists of at least 15 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF English Department

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## Honors in English Degree: Additional Requirements (10 hrs)

Application and admission through the English Honors Committee
Fulfill University requirements for Honors in the Major
Grade of "B" (3.0) or better in 5000 level English elective (3 hrs), Directed Readings (3 hrs), and Thesis hours ( 3 hrs ).

Successful completion and oral defense of honors thesis

1. UCF General Education Program
A. Communication Foundations

Select SPC 1600C Fund of Oral Com
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Prefer STA 1060C Statistics Using Excel
D. Social Foundations
E. Science Foundations

## 2. Common Program Prerequisites

ENC 1101* Composition I GEP
ENC 1102* Composition II
*See Transfer Notes for possible substitutes

## 3. Core courses-Basic

Choose two of the following:
ENG 3014 Theory \& Tech of Literary Study
CRW 3013 Creative Writing for English Majors
ENC 3211 Theory \& Practice of Tech Writing
Choose three of the following four
ENL 2012 English Literature I
ENL 2021 English Literature II
AML 3031 American Literature I
AML 3051 American Literature II
Required Basic Course
3 hrs

## 4. Core requirements-Advanced

ENC 4293 Technical Documentation I
ENC 4294 Technical Documentation II
ENC 4295 Technical Documentation III
ENC 4215 Techniques of Tech Publication
ENC 4218 Visual Elements in Documentation
ENC 4280 Technical Writing Style
LIT 4433 Technical and Sci Literature 3 hrs

## 5. Restricted Upper Division Electives

(3 hrs)
Choose one of the following:
ENC 4414 Studies in Hypertext
ENC 4415 Digital Rhetorics
ENC 4365 Writing for the Computer Industry
Optional course
ENC 4941 Tech Writing \& Editing Internship

## 6. Departmental Exit Requirements

- Maintain a minimum GPA of 2.0 in upper division required courses
- Computer Competency met by completion of ENC 4293


## 7. Foreign Language Requirements

Admission: Met by graduation requirement
Graduation: Three semesters or equivalent proficiency exam. With departmental approval, a cultural/multicultural or related course may be used to satisfy one semester of the Graduation requirement.

## 8. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted.
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Creative Writing, Literature

Related Minors: Creative Writing, Literature, Linguistics, Technical Writing, Writing

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information

Acceptable Substitutes for common program prerequisites to the BA in Technical Writing if taken prior to transferring to UCF:

ENC 1101* \& 1102*: may use any two lower level courses, taught in the English Department, and each having a 6,000 word requirement. However ENC $1101 \& 1102$ are prerequisites for all subsequent English courses and will need to be taken for the major.
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Orlando, Florida
(407) 823-2000

ENGLISH LANGUAGE ARTS EDUCATION (B.S.)

## College of Education

Department of Instructional Programs and Educational Leadership, ED346, 407-823-2939
Co-Coordinator: Cheryl Tabscott, ED348, 407-823-5255,
E-mail: ctabscott@mail.ucf.edu
Co-Coordinator: Donna Camp, DBC, (904) 354-7423
E-mail: camp@mail.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements:

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university
- Have a minimum 2.5 overall GPA

Pass four parts of the CLAST examination (no alternatives are accepted)

- Complete prerequisite courses

Degree Requirements:
Students should see an advisor

- The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

## A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II
(36 hrs)
(9 hrs)
3 hrs
3 hrs
AMH 2010 U.S. History 1492-1877 3 hrs

AMH 2020 U.S. History 1877-Present 3 hrs
PHI 2010 Introduction to Philosophy 3 hrs
C. Mathematical Foundations* (6 hrs)

MGF 1106 Finite Mathematics 3 hrs

## Select one:

STA 1060C Basic Statistics using MS Excel or 3 hrs
STA 2014C Principles of Statistics 3 hrs
D. Social Foundations (6 hrs)

POS 2041 American National Government 3 hrs
PSY 2013 General Psychology 3 hrs
E. Science Foundations (6 hrs)

PSC 1121 Physical Science 3 hrs
Select one:
ANT 2511 The Human Species or 3 hrs
BSC 1005 Biological Principles 3 hrs
Note: See laboratory component under Section 2.

## 2. Common Program Prerequisites

( 25 hrs )
A. Communications

ENC 1101 Composition I (9 hrs)

GEP
ENC 1102 Composition II GEP

SPC 1600C Fundamentals of Oral Communication GEP
B. Humanities

PHI 2010 Introduction to Philosophy GEP
Select one: 3 hrs

ARH 2050 The History of Art I or
ARH 2051 The History of Art II or
MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
THE 2071C Cinema Survey
C. Mathematics

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
(9 hrs)
3 hrs

## GEP

GEP

STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History GEP

AMH 2020 U.S. History 1877-Present GEP
POS 2041 American National Government GEP
PSY 2013 General Psychology
E. Science

PSC 1121 Physical Science
GEP
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Select one:
AST 2002 Astronomy or
GEO 1200 Physical Geography or
GLY 1030 Geology and its Applications

Select one associated science lab:
1 hr
BSC 1005L Biological Principles Laboratory or
GEO 1200L Physical Geography Laboratory or

PSC 1121L Physical Science Laboratory

## F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations
EME 2040 Intro to Educational Technology
G. Diversity Courses
H. Other Program Prerequisites

LIT 2110 World Literature I 3 hrs
ENL 2012 English Literature I to 1798
(9 hrs)
3 hrs
3 hrs
3 hrs

## GEP

(6 hrs)

3 hrs

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to $2000-01$, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in English/Language Arts Education take a series of core and specialization courses to prepare them to teach English/Language Arts in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the English/Language Arts Education major's program and to integrate theory and practice in actual school settings. Throughout the English/ Language Arts Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 5. Foreign Language Requirements

( $0-8 \mathrm{hrs}$ )
State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

Achieve a minimum 2.5 GPA in all courses within the major.

- Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.
- Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.


## 7. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

## 8. Total Semester Hours Required

## To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.

[^5]ENVIRONMENTAL ENGINEERING (B.S.Env.E.)

College of Engineering and Computer Science
Civil \& Environmental Engineering Department (CEE),
EB II 211, 407-823-2841, Fax: 407-823-3315,
Home Page http://www.cee.engr.ucf.edu
Manoj Chopra, E-Mail: chopra@mail.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes engineering academic advisement and registration for first-semester UCF classes.

## Degree Requirements

Each engineering student is assigned a qualified engineering academic advisor in the department of his/her major. Each student should seek academic advisement before registering for classes each semester to minimize excess hours and to ensure that satisfactory academic progress is being maintained.

## 1. UCF General Education Program for Engineering

## Students

 (38 hrs)The UCF General Education Program (GEP) is described in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from within the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations
9 hrs

1. Take ENC 1101
2. Prefer SPC 1016
B. Cultural and Historical Foundations
9 hrs
C. Mathematical Foundations 7 hrs
3. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
4. Take STA 3032 ( 3 hrs ). Note: Calculus II is the prerequisite for this course.
D. Social Foundations

6 hrs

1. Take ECO 2013 or ECO 2023.
2. Take ANT 2000, PSY 2013, or SYG 2000.
E. Science Foundations

7 hrs

1. Take PHY 2048/48L.
2. Take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

(19 hrs)
These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements, as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHM 2045/45L Chemistry Fundamentals I 4 hrs
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)
MAC 2283 Calculus for Scientists \& Engineers III 4 hrs
(MAC 2313 will substitute)
MAP 2302 Differential Equations ..... 3 hrs
PHY 2048/48L Physics for Engineers \& Scientists IPHY 2049/49L Physics for Engineers \& Scientists II4 hrs
ENC 1101 Composition I ..... GEP
ENC 1102 Composition II ..... GEP
Humanities Courses ..... GEP
Social Science Courses ..... GEP
Humanities or Social Sciences ..... GEP

## 3. Courses Required for the Major

 ( 60 hrs )The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.25 GPA in completing these courses, together with technical elective courses listed in 4. below and with the senior design courses listed in $\mathbf{5}$. below. Independent study courses generally do satisfy major requirements and normally are awarded grades of I, S, or U.

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1930 ST: Engineering Concepts \& Methods 1 hr
CHM 2046/46L Chemistry Fundamentals II w/Lab 4 hrs
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics 3 hrs
EGN 3331 Mechanics of Materials 3 hrs
EGN 3343 Thermodynamics 3 hrs
EGN 3365 Structure \& Properties of Materials 3 hrs
EGN 3613 Engineering Economic Analysis 2 hrs
EGN 3930 ST: Principles of Electrical Engnring 3 hrs
CCE 4003 Intro to the Construction Industry 3 hrs
ENV 3001 Intro to Environmental Engineering 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
CWR 3201 Engineering Fluid Mechanics 3 hrs
CWR 4101C Hydrology 3 hrs

| CWR 4203C | Hydraulics | 3 hrs |
| :--- | :--- | :---: |
| EES 4111C | Biological Process Control | 3 hrs |
| EES 4202C | Chemical Process Control | 3 hrs |
| ENV 4120 | Air Pollution Control | 3 hrs |
| ENV 4341 | Solid Waste Management | 3 hrs |
| ENV 4561 | Environmental Engrng-Process Design | 4 hrs |
| ENV 4563 | Environmental Control Systems | 3 hrs |

## 4. Approved Technical Electives

Technical electives are available in the BSEnvE program to address specific student interests in a variety of technical areas. Students should consult with their assigned academic advisor for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 5. Departmental Graduation Requirements

Approved EnvE Design Course I
Approved EnvE Design Course II
(6 hrs)
3 hrs
3 hrs

- Earn a minimum graduating GPA of 2.250 in each of the following areas: the Engineering Core and in the EnvE Option, which includes the Major Courses from 3. above and the Approved EnvE Design Courses.
- EnvE students must take the Engineering Intern Exam during their Senior year.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## Graduation:

none

## 7. University Minimum Graduation Requirements

## A 2.0 UCF GPA.

60 semester hours earned after any CLEP award.
48 semester hours of upper division credit completed.

32 semester hours of regular courses completed at UCF.
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted.

- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable).


## Total Semester Hours Required:

## 128 hrs

Related Programs: Chemistry, Civil Engineering.

Related Minors: Chemistry, Environmental Studies, Mathematics.

## Transfer Notes:

- Courses taken from Community Colleges do not substitute for Upper Division Courses
- Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information with his/her petition for this evaluation.


## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Environmental Engineering - 128 semester hours required FIRST YEAR

| Fall | 14 hrs $\mathbf{1 , 2}$ | Spring | 15 hrs 1,2 |
| :--- | :--- | :--- | :--- |
| *ENC 1101 English Comp I | 3 | *ENC 1102 English Comp II | 3 |
| MAC 2281 Calc Sci \& Eng I | 4 | MAC 2282 Calc Sci \& Eng II | 4 |
| *ECO 2013 or | *PHY 2048/L Phys Engr I w/lab | 4 |  |
| ECO 2023 Economics I, II | 3 | *ANT/PSY/SYG or |  |
| *SPC 1016 Tech Presentations | 3 | *GEO/GLY/BSC | 3 |
| EGN 1006 Intro to Engr | 1 | EGN 1930 ST Eng Conc \& Meth 1 |  |

## SECOND YEAR

| Fall $\quad 16 \mathrm{hrs}^{1}$ | pring 17 hrs $^{1}$ |  |  |
| :---: | :---: | :---: | :---: |
| MAC 2283 Calc Sci \& Eng III | 4 * | *MAP 2302 Diff Equations | 3 |
| *CHM 2045 Chemistry Funds I | $4 *$ * | *CHM 2046/L Chem Fund II/lab | 4 |
| *HUM/AMH/EUH I | 3 *PH | *PHY 2049/L Phys Engr\&Sci II | 4 |
| EGN 3310 Engr Anal-Statics |  | *HUM/AMH/EUH II | 3 |
| EGN 3613 Eng'ring Econ Anal | 2 EG | EGN 3321 Engr Anal-Dynamics | 3 |

Summer ..... 9 hrs ${ }^{1}$
*ANT/PSY/SYG or*GEO/GLY/BSC
EGN 3343 Thermodynamics ..... 3
ENV 3001 Intro to Environ Eng ..... 3
THIRD YEAR
Fall 15 hrs Spring ..... 15 hrs $^{1}$

CWR 3201 Engr Fluid Mech
EGN 3365 Strctr \& Prop Matls
EGN 3331 Mech of Materials
EGN 3930 ST: Prin Elec Eng
STA 3032 Problty/Stats for Eng

3 CWR 4101C Hydrology
3 CWR 4203C Hydraulics3
3 ENV 4120 Air Pollution Contrl ..... 3
3 *Cultural/Historical Elective ..... 3
3 ENV 4341 Solid/Haz Waste ..... 3

FOURTH YEAR
Fall 13 hrs Spring 14 hrs

ENV 4563 Envrnmntl Cont Sys 3 Approved Proj Design Course 3 ENV 4561 Process Design 4 Approved Proj Design Course 3 EES 4202C Chmcl Proc Control 3 EES 4111C Biolgcl Proc Cntrl 3

## Notes:

1. Courses marked with an asterisk (*) are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.
2. EGN 1006 and EGN 1930 are required courses for incoming freshmen only. The credits for these two courses (one hour each) may, with prior approval of the department academic advisor, be moved to the area 4. Approved Technical Electives.

EXCEPTIONAL STUDENT EDUCATION (B.S.)

## College of Education

## Department of Human Services and Wellness 407-823-2598

Coordinator: Wilfred Wienke, ED214, 407-823-2598,
E-mail: wwienke@ mail.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements:

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university
- Have a minimum 2.5 overall GPA
- Pass four parts of the CLAST examination (no alternatives are accepted)
- Complete prerequisite courses


## Degree Requirements:

- Students should consult with an advisor

Students must earn at least a "C" (2.0) in each required Exceptional Education course

- The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours.


## 1. UCF General Education Program

A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II

SPC 1600C Fundamentals of Oral Communication 3 hrs

| B. Cultural-Historical Foundations* | $(9 \mathrm{hrs})$ |  |
| :--- | :--- | :---: |
| AMH 2010 | U.S. History 1492-1877 | 3 hrs |
| AMH 2020 | U.S. History 1877-Present | 3 hrs |
| PHI 2010 | Introduction to Philosophy | 3 hrs |
| C. Mathematical Foundations* | $(6 \mathrm{hrs})$ |  |
| MGF 1106 | Finite Mathematics | 3 hrs |
| Select one: |  |  |
| STA 1060C | Basic Statistics using MS Excel or | 3 hrs |
| STA 2014C | Principles of Statistics | 3 hrs |
| D. Social Foundations | $(6 \mathrm{hrs})$ |  |
| POS 2041 | American National Government | 3 hrs |
| PSY 2013 | General Psychology | 3 hrs |
| E. Science Foundations | $(6 \mathrm{hrs})$ |  |
| PSC 1121 | Physical Science | 3 hrs |
| Select one: |  | 3 hrs |
| ANT 2511 | The Human Species or | 3 hrs |
| BSC 1005 | Biological Principles |  |
| Note: See laboratory component under Section 2. |  |  |

2. Common Program Prerequisites ..... ( 25 hrs )
A. Communications ..... (9 hrs)
ENC 1101 Composition I ..... GEP
ENC 1102 Composition II ..... GEPSPC 1600C Fundamentals of Oral Communication GEP
B. Humanities(6 hrs)
PHI 2010 Introduction to Philosophy ..... GEP
Select one: ..... 3 hrs
ARH 2050 The History of Art I or

ARH 2051 The History of Art II or
MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History 1492-1877

AMH 2020 U.S. History 1877-Present

POS 2041 American National Government
PSY 2013 General Psychology
E. Science

PSC 1121 Physical Science
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Select one:
AST 2002 Astronomy or
GEO 1200 Physical Geography or
GLY 1030 Geology and its Applications
Select one associated science lab:
(9 hrs)
3 hrs

## GEP

GEP

AMH 2010
U.S. History

## GEP

## GEP

## GEP

( $9 \mathrm{hrs}+\mathrm{lab}$ )
GEP
GEP

3 hrs

1 hr
BSC 1005L Biological Principles Laboratory or
GEO 1200L Physical Geography Laboratory or
PSC 1121L Physical Science Laboratory
F. Education Courses (9 hrs)

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations
EME 2040 Intro to Educational Technology
G. Diversity Courses
H. Other Program Prerequisites

3 hrs

Students must select an additional six hours in courses
in the following liberal arts and sciences areas:
communications, mathematics, natural and/or physical
sciences, fine arts and/or humanities, and social sciences.

## 3. Education Preprofessional Requirements

EEX 2010 Orientation to Special Education 3 hrs
MAE 2801 Elementary School Mathematics 4 hrs

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to $\mathbf{2 0 0 0} \mathbf{- 0 1}$, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 4. Specialization Requirements

Exceptional Education teachers instruct students with a variety of special needs in elementary, middle, or high school settings. Students majoring in Exceptional Education take a series of core and specialization courses to prepare them to teach in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Exceptional Education major's program and to integrate theory and practice in actual school settings. Throughout the Exceptional Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 5. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 6. Foreign Language Requirements

 (0-8 hrs)State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 7. Departmental Exit Requirements

Achieve a minimum 2.5 GPA in all courses within the major.
Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

- Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.


## 8. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 9. Total Semester Hours Required

## To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.

FILM (B.A.)

College of Arts and Sciences
Department of Film, COM 121, 407-823-3456
http://www.film.ucf.edu
E-mail: film@ucf.edu
Sterling Van Wagenen, Chair

## Admission Requirements

The Film major is a limited access program.
Attain an overall minimum 2.5 GPA before applying

- Students should apply to become Film majors only after completing all requirements for admission to the university

Applications to become a Film major are required by January 15 for admission to the subsequent Fall term

Submission of a 500 to 1000 word essay describing their background, artistic experiences, creative influences, personal objectives, and future career goals

Provide a resume, transcripts, and two letters of recommendation

- Provide a portfolio. The portfolio must consist of no more than three samples. Writing samples maximum 20 pages. Video samples - maximum 10 minutes. Slides, photographs, storyboards, etc. maximum three samples.

A portfolio review is required before entry into the Film major

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
Students are required to earn a grade of "B" (3.0) or better in all major courses

A maximum of three credit hours of internship may be earned in one semester. A total of six credit hours of internship may be earned within the 120 credit hours required for graduation.

- Students should consult with a departmental advisor
- Departmental Residency Requirement consists of at least 24 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Film Department


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations

Select one 2 semester sequence
Select FIL 2400 History of Motion Pictures
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Prefer CGS 1060C Intro to Computer Sci or
STA 1060C Statistics Using Excel
D. Social Foundations 6 hrs
E. Science Foundations

## 2. Common Program Prerequisites

FIL $2400 \quad$ History of the Motion Pictures
FIL 2XXX Script Analysis
(FIL 3102 Writing for Film/TV may substitute)
3. Lower Level Core Requirements

FIL 1XXX Foundations of Story
FIL 1XXX Cinematic Expression/Aesthetic 3 hrs
FIL $2201 \quad$ Foundations of Film Production 3 hrs
FIL 2XXX Editing I 3 hrs
FIL 2XXX Directing I 3 hrs
(3 hrs)
GEP
3 hrs
(24 hrs)
3 hrs

| FIL 2XXX | Cinematography I | 3 hrs |
| :---: | :---: | :---: |
| Select one |  | 3 hrs |
| FIL 2XXX Film Acting |  |  |
| TYP 2110 Acting I |  |  |
| 4. Upper Level Core Requirements |  | (36 hrs) |
| FIL 3922 | Film Colloquium | 6 hrs |
| six semesters of Colloquium required @ 1 hr each |  |  |
| FIL 3401 | Film History to 1945 | 3 hrs |
| FIL 3402 | Film History 1945 to Present | 3 hrs |
| FIL 4208 | Directing II | 3 hrs |
| FIL 3503 | Film Theory and Criticism I | 3 hrs |
| FIL 3124 | Short Script I | 3 hrs |
| FIL 4604 | The Film Producer | 3 hrs |
| FIL 4203C | Capstone I | 3 hrs |
| FIL 4211C | Capstone II | 3 hrs |
| FIL 4XXX | Interactive Entertainment | 3 hrs |
| Select one |  | 3 hrs |

FIL 3XXX Short Script II
FIL 4112C Feature/TV Writing

## 5. Upper Level Restricted Electives

(24 hrs)
Select eight courses from the following. Must complete core requirements before taking these courses. A maximum of six hours of Independent Study may be substituted with advisor's prior approval.

## Production/Direction

FIL 4223 Design for Film 3 hrs
FIL $4210 \quad$ Cinematography II 3 hrs
FIL $4212 \quad$ Sound Design 3 hrs

FIL 4607 Film Production Management 3 hrs
FIL 4213C Editing II 3 hrs
FIL 3300 Film Documentary 3 hrs
FIL 4XXX Directing III 3 hrs
Screen Writing

| FIL 4103 | Adaptation | 3 hrs |
| :--- | :--- | :---: |
| FIL 4111C | Intermediate Scriptwriting | 3 hrs |
| FIL 4112C | Advanced Scriptwriting | 3 hrs |
| FIL 4113C | Scriptwriting Workshop | 3 hrs |
| FIL 4114 | Interactive Writing I | 3 hrs |
| FIL 4504 | Genre Writing | 3 hrs |

## - Cinema Studies

FIL 3520 Italian Film 3 hrs
FIL 3521 French Film 3 hrs
FIL 3522 German Film 3 hrs
FIL 3XXX American Cinema 3 hrs
FIL 3412 Black Cinema 3 hrs
FIL 3309 Women in Film 3 hrs
FIL 3503 Film Theory and Criticism I 3 hrs
FIL 3507 Film Theory and Criticism II 3 hrs

## - Digital Cinema

| ART 2820 | Art as Interface | 3 hrs |  |
| :--- | :--- | :---: | :--- |
| ART 3XXX | Post Production Design | 3 hrs |  |
| FIL 3XXX | Converging Media | 3 hrs |  |
| IDS 3XXX | Digital Imagery | 3 hrs |  |
| IDS 4XXX Internet Interaction <br> Graphics  | 3 hrs | IDS 4681 Modeling for Realtime |  |
| MUC 3311 | MIDI Sequencing I | 3 hrs |  |
| COP 3502C | Computer Science I | 3 hrs |  |

## 6. Departmental Exit Requirements

A student must earn a grade of "B" (3.0) in all Film courses used in the Film major.
Computer Competency met by FIL 4111C.
Department of Film requires a passing grade on an exit examination.

## 7. Foreign Language Requirements

Admission: Met by graduation requirement
Graduation: One year college level or equivalent proficiency exam.

## 8. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted.
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable).

Related Minors: Art, Cinema Studies, Creative Writing, Digital Media, Music, Theatre

## Transfer Notes:

Film courses from other institutions which are below a "B" (3.0) do not meet departmental requirements.

- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.
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FINANCE (B.S.B.A.)

College of Business Administration
BA 240, 407-823-2184
http://www.bus.ucf.edu

## Admissions Requirements

- Completion of the UCF General Education Program or an AA degree from a Florida Public Community College
- See Common Program Prerequisites


## Degree Requirements

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 1105 College Algebra
Select CGS 2100C Comp Fundamentals for Bus
D. Social Foundations

Select ECO 2013 Principles of Economics I or
ECO 2023 Principles of Economics II
Select one: PSY 2013, SYG 2000, ANT 2000
E. Science Foundation
(36 hrs)
9 hrs
9 hrs

3 hrs
3 hrs

3 hrs

3 hrs
6 hrs

## 2. Common Program Prerequisites

Must be completed with a "C" (2.0) or better.
ACG 2021 Principles of Financial Accounting
ACG 2071 Principles of Managerial Accounting
ECO 2013 Principles of Macroeconomics
ECO 2023 Principles of Microeconomics
*ECO 3401 Quantitative Business Tools I
CGS 2100C Computer Fundamentals for Business
*At UCF, students who have completed MAC 2233 and STA 2023 will be waived from ECO 3401. Students who have not completed both classes with a "C" (2.0) or better must take ECO 3401.

## 3. Required for All Business Majors

(30 hrs)
Common Body of Knowledge
First Semester in the College of Business Administration:
GEB 3031 Cornerstone 6 hrs
First or subsequent semesters depending on major:
BUL 3130 Legal \& Ethical Environments
of Business 3 hrs
ECO 3411 Quantitative Business Tools II
3 hrs
FIN 3403 Business Finance 3 hrs
MAN 3025 Management of Organizations 3 hrs

ISM 3011 Essentials of Management 3 hrs
Information Systems
MAR 3023 Marketing 3 hrs
Last Semester:
GEB 4361 Bus. in the International Environ 3 hrs
MAN 4720 Strategic Management 3 hrs

## 4. Special College and/or Department Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Only grades of "C" (2.0) or higher transfer into the program and students must have a "C" (2.0) or better in each common program prerequisites class.

The Finance Major Curriculum consists of 27 semester hours in addition to FIN 3403. Students are required to earn a grade of "C" (2.0) or better in FIN 3403 and all other classes taken toward the major and to have a 2.0 overall average.

FIN 3403 Business Finance, is prerequisite to all finance courses except FIN 3140, REE 3043, \& REE 4433.

- FIN 3140 (Personal Finance and Investments) and REE 3043 (Fundamentals of Real Estate) are not usable for credit by Finance or General Business Majors.
- Students wanting to major in Finance must apply for admission to the major.

Students not in attendance at the first meeting of any College of Business course may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.

Final exams will be given during Exam Week.
A transfer student to this program must take a minimum of 12 semester hours in finance at UCF.
Students must take 60 credit hours in courses outside the College of Business.

## 5. Required Courses

FIN 3303
FIN 3414
hrs
FIN 3504
FIN 4453
Select two of the following:*
FIN 4313 Management of Financial Institutions 3 hrs
FIN 4324 Commercial Bank Management 3 hrs
FIN 4514 Portfolio Analysis and Management
3 hrs
FIN 4533 Speculative Financial Markets 3 hrs
FIN 4604 International Financial Management 3 hrs

Investment Analysis 3 hrs
Financial Models
3 hrs

| FIN 4424 | Adv Topics in Financial Management | 3 hrs |
| :--- | :--- | :--- |
| REE 4303 | Real Estate Investment Analysis | 3 hrs |

## 6. Restricted Electives

Select three of the following:*
ACG 3101 Intermediate Financial Accounting I 3 hrs
ACG 3111 Intermediate Financial Accounting II 3 hrs
ACG 3361 Cost Accounting 3 hrs
ACG 4401 Accounting Systems I 3 hrs
ECO 4412 Economic Statistics \& Econometrics 3 hrs
ECP 4403 Bus, Government, \& Industrial Orgs 3 hrs
ECP 4603 Urban \& Regional Economic Problems 3 hrs
ECP 4703 Managerial Economics 3 hrs
FIN 3930 Financial Statement Analysis 3 hrs
FIN 4313 Management of Financial Institutions 3 hrs
FIN 4324 Commercial Bank Management 3 hrs
FIN 4424 Adv Topics in Financial Management 3 hrs
FIN 4514 Portfolio Analysis and Management 3 hrs
FIN 4533 Speculative Financial Markets 3 hrs
FIN 4604 International Financial Management 3 hrs
FIN 4730 Senior Financial Consulting I 3 hrs
FIN 4731 Senior Financial Consulting II 3 hrs
FIN 4906 Independent Study 3 hrs
FIN 4941 Internship 3 hrs

MAR 3391 Professional Selling 3 hrs
REE 4303 Real Estate Investment Analysis 3 hrs
REE 4103 Real Estate Appraisal 3 hrs

REE 4204 Real Estate Finance 3 hrs

RMI 3011 Principles of Risk and Insurance
TAX 4001 Federal Income Tax I
*No class may be used more than once

3 hrs
3 hrs
3 hrs

## 7. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## Graduation: none

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
30 semester hours of coursework completed in residency (last 30 hours) at UCF
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Military credit permitted

- Completion of the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## 9. Electives

As necessary to result in 120 total credit hours
***Total Semester Hours Required

## 120 hours

## Community/Junior College Transfer Notes

Common Program Prerequisites for the State University System for College of Business Administration programs include Financial Accounting, Managerial Accounting, Macroeconomics, Microeconomics, Calculus, Statistics, and a relevant computer class. At UCF Business, students who have completed the calculus and statistics class will be waived from Business Quantitative Tools I. Students who have completed either the calculus or the statistics, but not both, must take Quantitative Tools I.

Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in the UCF Business program. Only grades of "C" (2.0) or higher transfer into the program and students must have a "C" (2.0) or better in each common program prerequisites class.

- ACG X001 and X011 will substitute for ACG 2021 at UCF

Florida Public Community College students are advised to complete the Associate of Arts degree, to include the general education requirements, the common program prerequisites for the SUS system, and college algebra.

Professional courses should not be taken at a community/junior college in the areas of Management, Marketing, Real Estate, or Finance. These professional areas are third and fourth year (junior, senior) course areas and cannot be satisfied with freshman, sophomore level courses.

- A minimum of 12 semester hours must be completed at UCF within each individual major.
- Orientation and advising are two of the most valuable tools that a student can make use of when transferring to UCF. Be sure that you take advantage of both.


## FOUR YEAR PLAN OF STUDY - FINANCE

Freshman

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | ---: | :---: | ---: |
| ENC 1101* | 3 | ENC 1102* | 3 |
| Cult-Hist I* | 3 | Cult-Hist II* | 3 |
| SPC 1600C | 3 | Art/Music/Lit | 3 |
| ***Elective | 3 | MAC 1105* | 3 |
| ***Elective | 3 | CGS 2100C* | 3 |

Must complete nine hours in a summer semester

Sophomore

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | ---: | :--- | :---: |
| ECO 2013* | 3 | ECO 2023* | 3 |
| ACG 2021* | 3 | ACG 2071* | 3 |
| Science | 3 | Science | 3 |
| Psy/Soc/Ant | 3 | $* * *$ Elective | 3 |

## Junior

Fall
**GEB 3031
***Elective
MAR 3023
FIN 3403
BUL 3130

15 hrs Spring
$6 \quad$ FIN 3303 3 FIN 3414 3 ECO 3411 3 MAN 3025

15 hrs
3
3 3 3
**Pass Computer Competency Exam in same term Cornerstone completed

## Senior

Fall
FIN 3504
ISM 3011
FIN Elective
~FIN Elective
~FIN Elective

15 hrs
3 MAN 4720
3 GEB 4361
3 FIN 4453
3 FIN Elective
3 FIN Elective

15 hrs 3 3

3
3
3
$\sim$ Select from required list taught by Finance department
***General electives as required to reach 120 semester hours to include at least 60 semester hours outside the College of Business Administration. Economics courses in the Common Program Prerequisites and the Common Body of Knowledge count toward the 60 hours outside Business Administration.
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FOREIGN LANGUAGE COMBINATION (B.A.)

College of Arts and Sciences
Department of Foreign Languages \& Literatures, CNH 523
http://pegasus.cc.ucf.edu/~forlang
E-mail: foreignlanguage@ucf.edu
C. E. Stebbins, 407-823-2472

## Admission Requirements

## none

## Placement in Language courses

- Placement in Foreign language courses is based on one year of high school language being equivalent to one semester of college work. Students must consult an advisor.

Native speakers or students who have received advanced education abroad must substitute select classes.

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
Language combinations may consist of French, German or Spanish as a first language and any of those three as a second language, as well as Italian.

24 credits in the first language and 15 credits in the second must be taken at the 3000 level or above.

- At least 33 hours must be taken in Foreign Language courses taught in the target language.

Students must earn at least a "C" (2.0) in each upper division foreign language course.
Co-op or internship credit can not be used in this major
Departmental Residency Requirement consists of at least 21 semester hours of regularly scheduled

3000-4000 level courses taken from the UCF Department of Foreign Languages and Literatures.

- Language credit by exam will not be given in courses lower in level than those in which students are presently enrolled. Native speakers will be allowed Credit by Examination in literature courses only.
- Students must see their departmental advisor for counseling and schedule approval before registering.
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours.


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Prefer CGS 1060C Intro to Computer Sci or
STA 1060C Statistics Using Excel
D. Social Foundations
E. Science Foundations
2. Common Program Prerequisites

Completion of Intermediate level of proficiency.

SPN 3420* Spanish Composition
FRE 3420* French Composition
FRE 4422* Advanced French Composition
GER 3420* German Composition
Oral Communication (select one)

## 3. Core requirements-first language <br> 3.

(French, German or Spanish)
Composition (select one)

3 hrs

SPN 3760* Adv Spanish Oral Communication
FRE 3760* Adv French Oral Communication
FRE 4421* Adv French Conversation
GER 3760* Adv German Oral Communication

* A native or near-native speaker must substitute an alternate upper division language course in consultation with a departmental advisor.

Literature (select one sequence)
6 hrs
SPW 3100 \& 3101 Survey of Spanish Literature
SPW 3130 \& 3131 Survey of Latin American Literature
FRW 3100 \& 3101 Survey of French Literature
GEW 3100 \& 3101 Survey of German Literature

Linguistics (select one)
3 hrs
FRE 4780 French Phonetics and Diction
FOL 3730 Romance Philology
GER 3780 German Phonetics and Diction
SPN 4801 Spanish Morphosyntax
SPN 4800 Spanish American Syntax
SPN 4780 Spanish Phonetics
Restricted Electives in the first language 9 hrs (chosen with departmental advisor)

## 4. Core requirements-second language

(French, German, Spanish, or Italian)
Composition (select one)
SPN 3420 , FRE 3420, GER 3420, ITA 3420
Advanced Oral Communication (select one)
SPN 3760, FRE 3760, GER 3760, or ITA 3760
( 15 hrs ) 3 hrs

3 hrs

## 5. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or higher in at least 39 hrs of upper division Foreign Language courses
- Students are required to satisfactorily complete a departmental exit exam
- Computer Competency met by CGS 1060C or equivalent


## 6. Foreign Language Requirements

Admission: Met by Graduation requirements.
Graduation: Met by degree program requirements (four semesters or proficiency).

## 7. Electives

 (variable)Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed

- 30 semester hours in regular courses completed at UCF
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Related Programs: French, Spanish

Related Minors: French, German, Italian, Judaic Studies, Latin American and Iberian Area Studies, Russian Area Studies, Spanish

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated by the department chair for equivalency credit. The student must provide all supporting information.
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FOREIGN LANGUAGE EDUCATION- FRENCH (B.S.)

## College of Education

Instructional Programs and Educational Leadership, ED346, 407-823-2939
Coordinator: Karen Verkler, ED224-11, 407-823-5235,
E-mail: kverkler@mail.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements

Have on file in the University Admissions Office passing scores on all parts of the College Level Academic Skills Test (CLAST) (No Alternatives)

Present an overall GPA of 2.5

- Meet any special departmental requirements


## Degree Requirements:

- Students should see an advisor

The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours

## 1. UCF General Education Program

 (36 hrs)A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II
(9 hrs)
3 hrs
3 hrs
AMH 2010 U.S. History 1492-1877 ..... 3 hrs
AMH 2020 U.S. History 1877-Present ..... 3 hrs
PHI 2010 Introduction to Philosophy ..... 3 hrs
C. Mathematical Foundations* ..... (6 hrs)
MGF 1106 Finite Mathematics ..... 3 hrs
Select one:
STA 1060C Basic Statistics using MS Excel or ..... 3 hrs
STA 2014C Principles of Statistics ..... 3 hrs
D. Social Foundations ..... (6 hrs)
POS 2041 American National Government ..... 3 hrs
PSY 2013 General Psychology ..... 3 hrs
E. Science Foundations ..... (6 hrs)
PSC 1121 Physical Science ..... 3 hrs
Select one:
ANT 2511 The Human Species or ..... 3 hrs
BSC 1005 Biological Principles ..... 3 hrs
Note: See laboratory component under Section 2.
2. Common Program Prerequisites ..... (31 hrs)
A. Communications ..... (9 hrs)
ENC 1101 Composition I ..... GEP
ENC 1102 Composition II ..... GEP
SPC 1600C Fundamentals of Oral Communication GEP
B. Humanities(6 hrs)
PHI 2010 Introduction to Philosophy ..... GEP
Select one: ..... 3 hrsARH 2050 The History of Art I orARH 2051 The History of Art II or

MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History 1492-1877

AMH 2020 U.S. History 1877-Present
POS 2041 American National Government
PSY 2013 General Psychology
E. Science

PSC 1121 Physical Science
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Select one:
AST 2002 Astronomy or
GEO 1200 Physical Geography or
GLY 1030 Geology and its Applications
Select one associated science lab:
(9 hrs)
3 hrs

## GEP

GEP
(12 hrs)
AMH 2010
U.S. History

GEP
GEP
GEP
( $9 \mathrm{hrs}+\mathrm{lab}$ )
GEP
GEP

3 hrs

BSC 1005L Biological Principles Laboratory or
GEO 1200L Physical Geography Laboratory or
PSC 1121L Physical Science Laboratory
F. Education Courses

EDF 2005 Introduction to Education

EDG 2701 Teaching Diverse Populations 3 hrs
EME 2040 Intro to Educational Technology 3 hrs
G. Diversity Courses

GEP
H. Other Program Prerequisites
(12 hrs)
A total of 12 hours of courses in elementary and intermediate grammar, composition and advanced conversation, and culture and civilization in French.

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to 2000-01, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in Foreign Language Education-French take a series of core and specialization courses to prepare them to teach in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Foreign Language Education major's program and to integrate theory and practice in actual school settings. Throughout the Foreign Language Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also
enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 5. Foreign Language Requirements

(0-8 hrs)
State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

Achieve a minimum 2.5 GPA in all courses within the major.

- Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.

## 7. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

## 8. Total Semester Hours Required

## To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit.

The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.
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FOREIGN LANGUAGE EDUCATION- SPANISH (B.S.)

## College of Education

Instructional Programs and Educational Leadership, ED346, 407-823-2939
Coordinator: Karen Verkler, ED224-11, 407-823-5235,
E-mail: kverkler@mail.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements

Have on file in the University Admissions Office passing scores on all parts of the College Level Academic Skills Test (CLAST) (No Alternatives)

Present an overall GPA of 2.5

- Meet any special departmental requirements


## Degree Requirements

- Students should see an advisor

The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours

## 1. UCF General Education Program

 (36 hrs)
## A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II
(9 hrs)
3 hrs
3 hrs

SPC 1600C Fundamentals of Oral Communication 3 hrs
B. Cultural-Historical Foundations*
AMH 2010 U.S. History 1492-1877 ..... 3 hrs
AMH 2020 U.S. History 1877-Present ..... 3 hrs
PHI 2010 Introduction to Philosophy ..... 3 hrs
C. Mathematical Foundations* ..... (6 hrs)
MGF 1106 Finite Mathematics ..... 3 hrs
Select one:
STA 1060C Basic Statistics using MS Excel or ..... 3 hrs
STA 2014C Principles of Statistics ..... 3 hrs
D. Social Foundations ..... (6 hrs)
POS 2041 American National Government ..... 3 hrs
PSY 2013 General Psychology ..... 3 hrs
E. Science Foundations ..... (6 hrs)
PSC 1121 Physical Science ..... 3 hrs
Select one:
ANT 2511 The Human Species or ..... 3 hrs
BSC 1005 Biological Principles ..... 3 hrs
Note: See laboratory component under Section 2.
2. Common Program Prerequisites ..... (31 hrs)
A. Communications ..... (9 hrs)
ENC 1101 Composition I ..... GEP
ENC 1102 Composition II ..... GEP
SPC 1600C Fundamentals of Oral Communication GEP
B. Humanities(6 hrs)
PHI 2010 Introduction to Philosophy ..... GEP
Select one: ..... 3 hrsARH 2050 The History of Art I orARH 2051 The History of Art II or

MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History 1492-1877

AMH 2020 U.S. History 1877-Present
POS 2041 American National Government
PSY 2013 General Psychology
E. Science

PSC 1121 Physical Science
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Select one:
AST 2002 Astronomy or
GEO 1200 Physical Geography or
GLY 1030 Geology and its Applications
Select one associated science lab:
(9 hrs)
3 hrs

## GEP

GEP
(12 hrs)
AMH 2010
U.S. History

GEP
GEP
GEP
( $9 \mathrm{hrs}+\mathrm{lab}$ )
GEP
GEP

3 hrs

BSC 1005L Biological Principles Laboratory or
GEO 1200L Physical Geography Laboratory or
PSC 1121L Physical Science Laboratory
F. Education Courses

EDF 2005 Introduction to Education

EDG 2701 Teaching Diverse Populations 3 hrs
EME 2040 Intro to Educational Technology 3 hrs
G. Diversity Courses
H. Other Program Prerequisites

## GEP

A total of 12 hours of courses in elementary and intermediate grammar, composition and advanced conversation, and culture and civilization in Spanish.

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to 2000-01, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in Foreign Language Education-Spanish take a series of core and specialization courses to prepare them to teach in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Foreign Language Education major's program and to integrate theory and practice in actual school settings. Throughout the Foreign Language Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the
student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 5. Foreign Language Requirements

State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

- Achieve a minimum 2.5 GPA in all courses within the major.
- Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.

## 7. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

## 8. Total Semester Hours Required

To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common

Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.
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FORENSIC SCIENCE-ANALYSIS TRACK (B.S.)

College of Arts and Sciences
Department of Chemistry, CH 329, 407-823-6205
http://www.cas.ucf.edu/chemistry/forensic.html
E-mail: chemistry@ucf.edu
B. Fookes

## Admission Requirements

## none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

Departmental Residency Requirement consists of at least 30 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Chemistry.

- Co-op credit can not be used in this major
- Students should consult with a departmental advisor

Students must complete categories 2 (Common Program Prerequisites) and 3 (Core science and math) below and achieve a minimum 2.5 cumulative GPA in categories 2 and 3 prior to enrolling in the program of study described in categories 4 and 5 .

- Students must maintain a minimum 2.5 cumulative GPA in categories 4 and 5 to continue in the major

Individual course prerequisites for enrollment in courses selected to complete categories 4 and 5 will be enforced without exception.

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours.
A. Communication Foundations ..... 9 hrs
B. Cultural and Historical FoundationsC. Mathematical Foundations
Select MAC 2253 Applied Calculus I ..... 3 hrsSelect STA 2023 Statistical Methods ID. Social Foundations
3 hrs6 hrs
E. Science FoundationsSelect PHY 2053C College Physics(PR: MAC 1105 and MAC 1114) 4 hrsSelect BSC 2010C General Biology4 hrs

2. Common Program Prerequisites( 15 hrs )
BSC 2010C General Biology ..... GEP
CHM 2045C* Chem Fund I ..... 4 hrs
CHM 2046 \& L Chem Fund II with Lab ..... 4 hrs
MAC 2253* Applied Calculus IMAC 2254* Applied Calculus IIPHY 2053C* College Physics IPHY 2054C* College Physics II*See Transfer Notes for possible substitutes

| 3. Core Science and Math Requirements | (24 hrs) |  |
| :--- | :--- | :---: |
| BSC 2010C | General Biology | GEP |
| CHM 2210 | Organic Chem. I | 3 hrs |
| CHM 2211 \& L Organic Chem II with lab | 5 hrs |  |
| CHM 3120C | Analytical Chemistry | 5 hrs |
| STA 1060C | Statistics with Excel | 3 hrs |
| STA 2023 | Statistical Methods I | GEP |


| PCB 3063 \& L | Genetics | 4 hrs |
| :--- | :--- | :---: |
| PCB 3233 \& L | Immunology | 4 hrs |
|  |  |  |
| 4. Forensic Science Core | (19 hrs) |  |
| CHS 3501 | Intro to Forensic Science | 3 hrs |
| CHS 3505C | Forensic Microscopy | 4 hrs |
| CHS 4XXX | Forensic Lab Quality Assurance | 2 hrs |
| CHS 3595 | Foren Sci in the Courtroom | 3 hrs |
| CHS 3533C | Forensic Biochemistry I | 3 hrs |
| CHS 4591 | Forensic Science Internship | 4 hrs |


| 5. Forensic Analysis Track | (28 hrs) |  |
| :--- | :--- | :---: |
| Required Courses (16 hrs) |  |  |
| CHM 3410 | Physical Chemistry I | 4 hrs |
| CHM 4130C | Advanced Analytical Chemistry | 4 hrs |
| CHS 3530C | Foren Anal of Controlled Subs | 4 hrs |
| CHS 3511C | Trace Evidence | 4 hrs |
| Select 6-12 hours from the following: |  |  |
| CHS 4506C | Forensic Investigating Techniques | 3 hrs |
| CHS 4XXXC | Forensic Crime Scene Investigation | 4 hrs |
| ANT 4521C | Forensic Anthropology | 5 hrs |
| BCH 4053 | Biochemistry I | 3 hrs |
| CHM 3212L | Organic Lab Techniques II | 2 hrs |

Criminal Justice courses; not to exceed six hours selected from the following courses:

CCJ $3014 \quad$ Crime in America 3 hrs
CCJ 3024 The Criminal Justice System 3 hrs

## 6. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or better in each course used to satisfy categories 2, 3, 4, and 5 of the degree requirements.
- Achieve at least a minimum overall 2.5 GPA in all courses used to satisfy categories 2 and 3 of the departmental degree requirements.
- Achieve at least a minimum overall 2.5 GPA in all courses used to satisfy categories 4 and 5 of the departmental degree requirements.
- Computer Competency met by STA 1060, a Computer Science course, or by departmental assessment.
- American Board of Criminalists (ABC) exit exam must be taken prior to graduation.
- The last 30 credit hours of regularly scheduled courses that satisfy degree requirements must be taken in Residence at UCF


## 7. Foreign Language Requirements

(0-8 hrs)
Admission: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 8. Electives

## (variable)

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces
credits permitted.

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable).


## Total Semester Hours Required

124 hours

Related Programs: Chemistry, Forensic Biochemistry Track

Related Minors: Chemistry

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- CHM 2045C*: may use CHM 1040 plus CHM 1041
- MAC 2253* \& 2254*: may use MAC 2311 \& 2312
- PHY 2053C* \& 2054C*: Program admission requirements may permit substitution by Organic Chemistry (CHM 2210 \& 2211). However, both Physics classes and Organic Chemistry classes are required for graduation.
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FORENSIC SCIENCE-BIOCHEMISTRY TRACK (B.S.)

## College of Arts and Sciences

Department of Chemistry, CH 223, 407-823-0163
http://www.cas.ucf.edu/chemistry/forensic.html
E-mail: chemistry@ucf.edu
J. Ballantyne

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

Departmental Residency Requirement consists of at least 30 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Chemistry

- Co-op or internship credit can not be used in this major
- Students should consult with a departmental advisor

Students must complete categories 2 (Common Program Prerequisites) and 3 (Core science and math) below and achieve a minimum 2.5 cumulative GPA in categories 2 and 3 prior to enrolling in the program of study described in categories 4 and 5 .

- Students must maintain a minimum 2.5 cumulative GPA in categories 4 and 5 to continue in the major

Individual course prerequisites for enrollment in courses selected to complete categories 4 and 5 will be enforced without exception.

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

| A. Communication Foundations | 9 hrs |
| :---: | :---: |
| B. Cultural and Historical Foundations | 9 hrs |
| C. Mathematical Foundations |  |
| Select MAC 2253 Applied Calculus I | 3 hrs |
| Select STA 2023 Statistical Methods I | 3 hrs |
| D. Social Foundations | 6 hrs |
| E. Science Foundations |  |
| Select PHY 2053C College Physics |  |
| (PR: MAC 1105 and MAC 1114) | 4 hrs |
| Select BSC 2010C General Biology | 4 hrs |
| 2. Common Program Prerequisites | (15 hrs) |
| BSC 2010C General Biology | GEP |
| CHM 2045C* Chem Fund I | 4 hrs |
| CHM 2046 \& L Chem. Fund II with lab | 4 hrs |
| MAC 2253* Applied Calculus I | GEP |
| MAC 2254* Applied Calculus II | 3 hrs |
| PHY 2053C* College Physics I | GEP |
| PHY 2054C* College Physics II | 4 hrs |
| *See Transfer Notes for possible substitu |  |

2. Common Program Prerequisites

MAC 2253* Applied Calculus I GEP

| 3. Core Science and Mathematics Requirements | (24 hrs) |  |
| :--- | :--- | :---: |
| BSC 2010C | General Biology | GEP |
| CHM 2210 | Organic Chem. I | 3 hrs |
| CHM 2211 \& L Organic Chem. II with lab | 5 hrs |  |
| CHM 3120C | Analytical Chemistry | 5 hrs |
| STA 1060C | Statistics with Excel | 3 hrs |
| STA 2023 | Statistical Methods I | GEP |


| PCB 3063 \& L | Genetics | 4 hrs |
| :---: | :---: | :---: |
| PCB 3233 \& L | Immunology | 4 hrs |
| 4. Forensic Scie | ence Core | (19 hrs) |
| CHS 3501 | Intro to Forensic Science | 3 hrs |
| CHS 3505C | Forensic Microscopy | 4 hrs |
| CHS 4XXX | Forensic Lab Quality Assurance | 2 hrs |
| CHS 3595 | Foren Sci in the Courtroom | 3 hrs |
| CHS 3533C | Forensic Biochemistry I | 3 hrs |
| CHS 4591 | Forensic Science Internship | 4 hrs |
| 5. Forensic Biochemistry Track |  | ( 28 hrs ) |
| MCB 3020C | General Microbiology | 5 hrs |
| BCH 4053 | Biochemistry I | 3 hrs |
| BCH 4054 | Biochemistry II | 3 hrs |
| BCH 4103L | Biochemical Methods Lab | 2 hrs |
| PCB 3523 | Molecular Biology I | 3 hrs |
| PCB 4524 | Molecular Biology II | 3 hrs |
| BSC 3404C | Quantitative Biological Methods | 3 hrs |
| CHS 4534C | Forensic Biochemistry II | 3 hrs |
| CHS 4XXX | Interpretation of DNA Evidence | 3 hrs |

## 6. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or better in each course used to satisfy categories $2,3,4$, and 5 of the departmental degree requirements.
- Achieve at least a minimum overall 2.5 GPA in all courses used to satisfy categories 2 and 3 of the departmental degree requirements.
- Achieve at least a minimum overall 2.5 GPA in all courses used to satisfy categories 4 and 5 of the departmental degree requirements.
- Computer Competency met by STA 1060C, a Computer Science course, or by departmental assessment.
- American Board of Criminalists (ABC) exit exam must be taken prior to graduation.
- The last 30 credit hours of regularly scheduled courses that satisfy degree requirements must be taken in Residence at UCF


## 7. Foreign Language Requirements

(0-8 hrs)
Admission: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

## Graduation:

## none

## 8. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 9. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted.
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable).

Total Semester Hours Required
124 hours

Related Programs: Chemistry, Forensic Science Analysis Track, Molecular Biology and Microbiology

Related Minors: Chemistry, Molecular Biology and Microbiology

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- CHM 2045C*: may use CHM 1040 plus CHM 1041
- MAC 2253* \& 2254*: may use MAC 2311 \& 2312
- PHY 2053C* \& 2054C*: Program admission requirements may permit substitution by Organic Chemistry (CHM 2210 \& 2211). However, both Physics classes and Organic Chemistry classes are required for graduation.


# Admissions and Catalogs <br> FRENCH (B.A.) <br> <br> College of Arts and Sciences <br> <br> College of Arts and Sciences <br> Department of Foreign Languages \& Literatures CNH 523, http://pegasus.cc.ucf.edu/~forlang <br> E-mail: foreignlanguage@ucf.edu <br> C. E. Stebbins, 407-823-2472 

## Admission Requirements

none

## Placement in Language courses

Placement in Foreign Language courses is based on one year of high school language being equivalent to one semester of college work. For example, four years of high school French may place the student in the first semester of the third year. Native speakers, or students who have received advanced education in French-speaking societies, may not take lower division French courses. They must also substitute other upper division level courses for FRE 3420, FRE 4422, FRE 3760, and FRE 4421.

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
36 credits in French must be taken at the 3000 level or above
At least six of the 36 French credits must be at the 4000 level
At least 30 hours must be taken in Foreign Language courses taught in French
Earn at least a "C" (2.0) in each upper division French course

- Departmental Residency Requirement consists of at least 18 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Foreign Languages and Literatures
- Language credit by exam will not be given in courses lower in level than those in which students are presently enrolled. Native speakers will be allowed Credit by Examination in literature courses
only.
- Co-op or internship credit can not be used in this major

Students must see their advisor to obtain proper counseling and have their schedule approved before registering for courses in their major

- Courses designated in 1 (Gen Ed Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Prefer STA 1060C Statistics Using Excel
D. Social Foundations
E. Science Foundations

## 2. Common Program Prerequisites

FRE 1120* Elem French Lang \& Civ I
FRE 1121* Elem French Lang \& Civ II
FRE 2200* Interm French Lang \& Civ I
FRE 2201* Interm French Lang \& Civ II

* May be met by proficiency test or completion of FRE 2201


## 3. Core requirements

FRE 3300* Advanced Grammar
FRE 3420* French Composition
or


#### Abstract

r


French Composition

## (36 hrs)

9 hrs 9 hrs

3 hrs

3 hrs 6 hrs 6 hrs

## (0-14 hrs)

4 hrs
4 hrs
3 hrs
3 hrs

## (21 hrs)

3 hrs

FRE 4422 Advanced French Composition
FRE 3760* Adv French Oral Communication
or 3 hrs

FRE 4421 Advanced French Conversation
FRW 3100 Survey of French Literature I 3 hrs
FRW 3101 Survey of French Literature II 3 hrs
FRE 4780* French Phonetics and Diction 3 hrs
FOL 3730 Romance Philology 3 hrs
*A native or near-native French speaker must substitute alternate upper division French courses in consultation with a departmental advisor.

## 4. Upper Division Restricted Electives

( 15 hrs )
French literature beyond the survey level
(taught in French)
French courses
9 hrs

## 5. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or higher in at least 36 hours of upper division French courses

Students are required to satisfactorily complete a departmental exit exam
Computer Competency met by CGS 1060C or equivalent

## 6. Foreign Language Requirements

(0-16 hrs)
Admission: Met by Graduation requirements.
Graduation: Met by Common Program Prerequisites.

## 7. Electives

 (variable)Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed

- 30 semester hours in regular courses completed at UCF

A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Spanish, Foreign Language Combination

Related Minors: French, German, Italian, Judaic Studies, Latin American and Iberian Area Studies, Russian Area Studies, Spanish

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated by the department chair for equivalency credit. The student must provide all supporting information.

GENERAL BUSINESS (B.S.B.A.)

College of Business Administration
BA 240, 407-823-2184
http://www.bus.ucf.edu
Faculty Advisor: B. Moore, BA 229F, 407-823-5256

## Admission Requirements

- Completion of the UCF General Education program or an AA degree from a Florida Public Community College
- See Common Program Prerequisites


## Degree Requirements

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 1105 College Algebra
Select CGS 2100C Computer Fundamentals for Bus
D. Social Foundations

Select ECO 2013 Principles of Economics I or
ECO 2023 Principles of Economics II
Select one: PSY 2013, SYG 2000, ANT 2000
E. Science Foundation
(36 hrs)
9 hrs 9 hrs 3 hrs 3 hrs 3 hrs 3 hrs

6 hrs

## 2. Common Program Prerequisites

Must be completed with a "C" (2.0) or better.
ACG 2021 Principles of Financial Accounting
ACG 2071 Principles of Managerial Accounting
ECO 2013 Principles of Economics I
ECO 2023 Principles of Economics II
*ECO 3401 Quantitative Business Tools I
CGS 2100C Computer Fundamentals for Business

* At UCF, students who have completed MAC2233 and STA2023 will be waived from ECO3401. Students who have not completed both classes with a "C" (2.0) or better must take ECO3401.


## 3. Required for All Business Majors

(30 hrs)
First Semester in the College of Business Administration:
GEB 3031 Cornerstone 6 hrs
First or subsequent semesters depending on major:
BUL 3130 Legal \& Ethical Environments of
Business 3 hrs
ECO 3411 Quantitative Business Tools II 3 hrs
FIN 3403 Business Finance 3 hrs
MAN 3025 Management of Organizations 3 hrs
ISM 3011 Essentials of Management Info Sys 3 hrs
MAR 3023 Marketing 3 hrs
Last Semester:
GEB 4361 Business in the International
Environment 3 hrs
MAN 4720 Strategic Management 3 hrs

## 4. Special college and/or department requirements:

- Students who change degree programs and select this major must adopt the most current catalog.
- Only grades of "C" (2.0) or higher transfer into the program and students must have a "C" (2.0) or better in each common program prerequisites class.
- Students wanting to major in General Business must apply for admission to the major

Students must take 60 semester hours in courses outside the College of Business.
Within the College of Business Administration the first day of class is mandatory.

- Final exams will be given during Exam Week.
- A transfer student to this program must take a minimum of 12 semester hours in the major at UCF.

Students must have at least a 2.0 GPA in the major and COB.

## 5. Second Level Core (5 courses):

Students must take one course from each of the following areas: Accounting (must take ACG 3101), Economics (must take ECP 4703), Finance, Management, and Marketing. These five courses are restricted to the courses listed below:

Accounting ACG 3101 Intermediate Accounting I
ACG 3361 Cost Accounting I
TAX 4001 Federal Income Tax I

Economics ECO 3223 Money and Banking
ECP 3203 Contemporary Labor Economics
ECP 4703 Managerial Economics

Finance
FIN 3303
Financial Markets
FIN 3404 Intermediate Corporate Finance
FIN 3504 Investment Analysis

Management MAN 3301 Management of Human Resources
MAN 4240 Organizations: Theory and Behavior

MAR 4841 Service Marketing
MAR 4156 International Marketing

## 6. Restricted Electives (four courses:

Restricted electives are to be taken from three different departments and from the courses listed above, at least two of the restricted electives must be at the 4000 level.
7. Students desiring to complete the General Business major as a second major within the College of Business Administration must complete 24 hours in the second major beyond the courses required for the first major.

## 8. Foreign Language Requirements

( $0-8 \mathrm{hrs}$ )
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.
Graduation:
none

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
30 semester hours of coursework completed in residency (last 30 hours) at UCF

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Military credit permitted
- Completion of the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## 10. Electives

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## GENERAL BUSINESS (B.S.B.A.)

## AS to BS TRACK

(Completion program for individuals who have a statewide articulated AS degree in business administration from a Florida public community college)

## College of Business Administration

BA 240, 407-823-2184

## http://www.bus.ucf.edu

Faculty Advisor: B. Moore, BA 325, 407-823-5256

## Admission Requirements

Completion of a Statewide Articulated A.S. in Business Administration from a Florida Public Community College which is composed of 64 hours of course work, including at least 24 hours of transferable general education courses.

## Degree Requirements

## 1. UCF General Education Program

Students will complete 12 hours of selected general education courses. The specific courses will be determined in coordination with general education courses completed as part of the articulated A.S. and may come from the following areas:
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations
D. Social Foundations
E. Science Foundation

## 2. Common Program Prerequisites

Must be completed with a "C" (2.0) or better.
ACG 2021 Principles of Financial Accounting
ACG 2071 Principles of Managerial Accounting
ECO 2013 Principles of Economics I
ECO 2023 Principles of Economics II
MAC 2233 Concepts of Calculus
STA 2023 Statistical Methods
CGS 2100C Computer Fundamentals for Business

## 3. Required for All Business Majors

(30 hrs)
First Semester in the College of Business Administration:
GEB 3031 Cornerstone 6 hrs
First or subsequent semesters depending on major:
BUL 3130 Legal \& Ethical Environments of
Business 3 hrs

ECO 3411 Quantitative Business Tools II 3 hrs
FIN 3403 Business Finance 3 hrs
MAN 3025 Management of Organizations 3 hrs
ISM 3011 Essentials of Management 3 hrs
Information Systems
MAR 3023 Marketing 3 hrs
Last Semester:
GEB 4361 Business in the International
Environment 3 hrs
MAN 4720 Strategic Management
3 hrs

## 4. Special college and/or department requirements:

- Students who change degree programs and select another major must adopt the most current catalog.
- Only grades of "C" (2.0) or higher transfer into the program and students must have a "C" (2.0) or better in each common program prerequisites class.
- Students wanting to major in General Business must apply for admission to the major
- Students not in attendance at the first class meeting of any College of Business course may be dropped from the course.
- Final exams will be given during Exam Week.
- A transfer student to this program must take a minimum of 12 semester hours in the major at UCF.
- Students must have at least a 2.0 GPA in the major and COB.


## 5. Second Level Core (5 courses):

Students must take one course from each of the following areas: Accounting (must take ACG 3101), Economics (must take ECP 4703), Finance, Management, and Marketing. These five courses are restricted to the courses listed below:

## Accounting ACG 3101 Intermediate Accounting I

Economics ECP 4703 Managerial Economics

Finance
FIN 3303
Financial Markets
FIN 3404 Intermediate Corporate Finance
FIN 3504 Investment Analysis
Management MAN 4240 Organizations: Theory and Behavior

Marketing MAR 4156 International Marketing
MAR 4841 Service Marketing

## 6. 4000 Level Requirement:

At least two of the second level courses must be at the 4000 level.

## 7. AS Transfer Classes

Twelve credit hours taken under the AS to BS agreement will be counted toward the degree.

## 8. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
30 semester hours of coursework completed in residency (last 30 hours) at UCF

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Military credit permitted

Completion of the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)

## 10. Electives

(variable)

## Must be outside the College of Business

## **Total Semester Hours Required

## 132 hours

## Community College Transfer Notes

Common Program Prerequisites for the State University System for College of Business Administration programs include Financial Accounting, Managerial Accounting, Macroeconomics, Microeconomics, Calculus, Statistics, and a computer fundamentals for business class. At UCF Business, students who have completed the calculus and statistics class will be waived from Business Quantitative Tools I. Students who have completed either the calculus or the statistics, but not both,

- Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in the UCF Business program. Only grades of "C" (2.0) or higher transfer into the program and students must have a " C " (2.0) or better in each common program prerequisites class.
- ACG X001 and X011 will substitute for ACG 2021 at UCF
- A minimum of 12 semester hours must be completed at UCF within each individual major.
- Orientation and advising are two of the most valuable tools that a student can make use of when transferring to UCF. Be sure that you take advantage of both.
***General electives as required to reach 132 semester hours to include at least 66 semester hours outside the College of Business Administration. Economics courses in the Common Program Prerequisites and the Common Body of Knowledge count toward the 66 hours outside Business Administration.
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HEALTH INFORMATION MANAGEMENT (B.S.)

## College of Health and Public Affairs

HPA II 210, 407-823-2353
Undergraduate Program Director: Carol Barr
E-mail: barr@mail.ucf.edu
Web Address: http://www.cohpa.ucf.edu/health.pro/

## Admission Requirements - LIMITED ACCESS

Acceptance to the university does not necessarily constitute admission to the upper division health information management program.

- SEPARATE APPLICATION to the limited access program must be made directly to the program prior to March 1 of the year admission is sought
- UCF application must also be submitted by the program deadline of March 1st
- Student must complete all general education, foreign language admissions, and program prerequisites prior to the start of the program
- All applicants must have a minimum overall GPA of 2.5 and complete all program prerequisite courses with at least a grade of "C' (2.0) (No CLEP, TSD or AP credit may be used for prerequisite courses)


## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog

Students should complete the General Education Program, Foreign Language Admissions and the Common Program Prerequisites Requirements before transferring within the Florida Public University/ Community College System

- Students should consult with a departmental advisor
- The courses designated in sections 1 and 2 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours
- A minimum overall GPA of 2.5 and a minimum grade of "C" (2.0) in prerequisite and major courses is required for admission to, continuation in, and graduation from the Health Information Program
- UCF Residency Requirement: 31 hours
- The courses designated in sections 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
C. Mathematical Foundations

Select MAC 1105
Select STA 2014C
D. Social Foundations
E. Science Foundations

Select BSC 2010C
Select CHM 1032

## 2. Common Program Prerequisites

ZOO 3733C Human Anatomy* 4 hrs
PCB 3703C Human Physiology* 4 hrs
STA 2014C Statistics GEP
CGS 2100C Computer Science for Business* 3 hrs
ACG 2021 Principles of Financial Accounting 3 hrs
ACG 2071 Principles of Managerial Accounting 3 hrs

* see transfer notes

| HSC 3149 | Introduction to Pharmacology | 3 hrs |
| :---: | :---: | :---: |
| HSA 3170 | Health Care Finance | 3 hrs |
| HSA 4109 | Principles of Managed Care | 3 hrs |
| HSA 4193 | Health Care Automation | 3 hrs |
| HSA 4700 | Intro to Research in Health Prof | 3 hrs |
| HSC 3531 | Medical Terminology | 3 hrs |
| HSC 3640 | Health Law | 3 hrs |
| HSC 4550 | Pathophysiologic Mechanisms | 3 hrs |
| MAN 3025 | Management of Organizations | 3 hrs |
| HIM 3006C | Foundations of Health Information |  |
| Management | 3 hrs |  |
| HIM 3116C | Health Record Organization \& |  |
|  | Management | 4 hrs |
| HIM 3806L | Professional Practice Exp. I | 2 hrs |
| HIM 3816L | Professional Practice Exp. II | 2 hrs |
| HIM 4226 | Coding Procedures I | 5 hrs |
| HIM 4256 | Coding Procedures II | 3 hrs |
| HIM 4676 | Professional Development Issues in |  |
| Health Inform | ion Management 3 hrs |  |
| HIM 4344C | Health Information Department |  |
| Management | 4 hrs |  |
| HIM 4506C | Performance Improvement | 3 hrs |
| HIM 4836L | Professional Practice Exp. III | 2 hrs |
| HIM 4837L | Professional Practice Exp. IV | 2 hrs |
| HIM 4838 | Management Affiliation | 5 hrs |
| HIM 4656C | Health Information Management |  |
| Systems | 3 hrs |  |

## 5. Departmental Exit Requirements

(120 hrs)
A minimum 2.5 overall GPA is required for graduation.
Upon completion of the approved program, the student is eligible to submit an application for writing the national registration examination administered by the American Health Information Management Association to qualify as a Registered Health Information Administrator.

## 6. Electives <br> none

## 7. Foreign Language Requirements

 (0-8 hrs)Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## Graduation:

none

## 8. University Minimum Exit Requirements

(120 hrs)

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hrs of extension, correspondence, CLEP, credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Related Programs: Health Services Administration, Business, Computer Science

Related Minors: Health Services Administration, Business, Computer Science

## Transfer Notes:

Community College Equivalents:
Human Anatomy \& Physiology I \& II (BSC X085 and X086) 8

Statistics (STA 2014C or any other statistics course) 3
Computer Science for Business (CGS 1060C or any other computer science course)

Tentative Course Schedule for Entering Freshmen

Freshman Year*

| Fall | $\mathbf{1 4}$ hrs | Spring | $\mathbf{1 6 ~ h r s ~}$ |
| :--- | :---: | :---: | :---: |
| ENC 1101 | 3 | ENC 1102 | 3 |
| CHM 1032 | 3 | STA 2014C | 3 |
| HSC 2000 | 2 | BSC 2010C | 4 |
| MAC 1105 | 3 | EUH 2000 or HUM 2211 | 3 |
| PSY 2013 or SYG 2000 | 3 | or AMH 2010 |  |
| or ANT 2000 |  | POS 2041 or ECO 2013 | 3 |

*Plan your required nine summer hours into your course of study

Sophomore Year
Fall $13 \mathrm{hrs} \quad$ Spring 13 hrs

ACG 2021
ZOO 3733C
EUH 2001 or HUM 2230
or AMH 2020
CGS 2100C
3 ACG 2071
4 PCB 3703C
4
3 SPC 1600C
3
One Course: ARH 20503
3 ARH 2051, MUL 2010, THE
1020, REL 2300, PHI 2010,
LIT 2110, LIT 2120

| Summer | 8 hrs |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (Foreign Lang I) | 4 |  |  |  |
| (Foreign Lang II) |  |  |  |  |
| if not satisfied in high school |  |  |  |  |
| Junior Year |  |  |  |  |
| Fall | 14 hrs | Spring | 14 hrs |  |
| HSA 4193** | 3 | HIM 4226C |  | 5 |
| HSC 4550** | 3 | HIM 3116C |  | 4 |
| HIM 3006C | 3 | HIM 3816L |  | 2 |
| HIM 3806L | 2 | HSC 3149 |  | 3 |
| HSC 3531** | 3 |  |  |  |
| Summer | 8 hrs |  |  |  |
| MAN 3025** | 3 |  |  |  |
| HIM 4836L | 2 |  |  |  |
| HSC 3640** | 3 |  |  |  |
| Senior Year |  |  |  |  |
| Fall | 13 hrs | Spring | 14 hrs |  |
| HIM 4344C | 4 | HIM 4676 |  | 3 |
| HSA 3170** | 3 | HIM 4656C |  | 3 |
| HIM 4506C | 3 | HIM 4837L |  | 2 |
| HIM 4256C | 3 | HSA 4700** |  | 3 |
| HSA 4109** | 3 |  |  |  |

**NOTE: The asterisked courses may be taken at any time during the two years. The HIM courses are offered only during the semester in which they appear on this schedule and are restricted to majors only.


HEALTH SCIENCES - ATHLETIC TRAINING TRACK (B.S.)

## College of Health and Public Affairs

HPA II 210, 407-823-6761
Undergraduate Program Director: Vincent Hudson
E-mail: vhudson@mail.ucf.edu
Web Address: http://www.cohpa.ucf.edu/health.pro/athletic

## Admission Requirements

Students may only begin the athletic training program track in the Fall semester and must have:
A. Acceptance to the University as an undergraduate student in Health Sciences.
B. A minimum of 3.0 overall grade point average with at least a " B " (3.0) earned in each course.
C. Completion of an AA degree from a Florida Community College; or completion of UCF's General Education Program.
D. Consent of Program Director.
E. A minimum of 100 documented clock hours working, volunteering, or shadowing with a licensed athletic trainer prior to admission to the program.

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog

Students should complete the General Education Program and the Common Program Prerequisites before transferring within the Florida Public University/Community College System

- Students should consult with a departmental advisor

The courses designated in sections 1 and 2 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours

UCF Residency Requirement: 30 hours

- The courses designated in sections 1 (General Education) and 2 (Core Requirements) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
C. Mathematical Foundations

Select MAC 1105
Select STA 2023
D. Social Foundations 6 hrs

Select POS 2041
Select PSY 2013
E. Science Foundations

6 hrs
BSC 2010C
CHM 2045
(36 hrs)
9 hrs
9 hrs
6 hrs

## 2. Common Course Prerequisites

( 15 hrs )
The following courses are required before entering the professional phase of the athletic training program. These 20 hours of required courses must have a grade of "B" (3.0) or better.
BSC 2010C General Biology I and Lab GEP
ZOO 3733C Human Anatomy 4 hrs

PCB 3703C Human Physiology 4 hrs
CHM 2045 General Chemistry I GEP
PHY 2053C Coll Physics I (algebra based) or 4 hrs
PHY 2048\&L Physics for Scientists I (calculus based)
HUN 2002 Modern Concepts of Nutrition 3 hrs
STA 2023 Gtatistical Methods I GEP
PSY 2013 General Psychology GEP

## 3. Professional Phase

| PET 3620C | Principles of Athletic Training | 3 hrs |
| :--- | :--- | :--- |
| PET 3670C | Practicum in Athletic Training I | 4 hrs |
| PET 4351 | App Exercise and Human Phys | 3 hrs |
| PET 3623C | Art \& Science Athletic Training I | 3 hrs |
| PET 3671C | Practicum in Athletic Training II | 4 hrs |
| PET 4660C | Org and Adm in Athletic Training | 3 hrs |
| PET 4630C | Ther Exercise in Athletic Training | 4 hrs |
| PET 4632C | Ther Mod in Athletic Training | 4 hrs |
| PET 4624C | Art \& Sci of Athletic Training II | 3 hrs |
| PET 4315C | Biomechanics of Sport | 3 hrs |
| PET 4672C | Practicum in Athletic Training III | 4 hrs |
| HSA 4700 | Health Science Research | 3 hrs |
| PET 4606 | App Fitness in Sport | 3 hrs |
| PET 4673C | Practicum in Athletic Training IV | 4 hrs |
| HSC 3149 | Introduction to Pharmacology | 3 hrs |
| PLA 4932 | Legal Issues in Athletics | 3 hrs |
| PET 4932 | Senior Seminar | 1 hr |

## 4. Upper Division Restricted Electives

## 5. Departmental Exit Requirements

(120 hrs)
Minimum of 1500 observation hours documented under the direct supervision of a certified Athletic Trainer (ATC).

## 6. Electives

(variable)

## 7. Foreign Language Requirements

Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## Graduation:

none

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Gerontology Certificate, Business, Public Administration

Related Minors: Business, Computer Sciences, Gerontology, Information Systems, and Public Administration. Courses leading to a Certificate in Gerontology are appropriate. Electives in advanced scientific, clinical or quantitative subjects are also advisable.

## Transfer Notes:

General Biology with Lab (BSC 1010/L)
4 hrs
Human Anatomy and Physiology I \& II (BSC X093 and 8 hrs
X094 or BSC X085 and X086)

Tentative Course Schedule for Entering Freshmen

## Freshman Year*



PET 4630C
PET 4632C

Senior Year

Fall
PET 4624C
PET 4315C
PET 4932
PET 4672C

## Summer

## 8 hrs

4
4

11 hrs Spring
3 HSA 4700
3 PET 4606
1 PET 4673C
4 HSC 3149

## 13 hrs

 3343HEALTH SCIENCES - GENERALIST TRACK (B.S.)

Purposes of this degree - Provides an opportunity for credentialed health care professionals to expand scope of their education through completion of courses both within and outside of their discipline and to enable students considering a health services career to complete courses in several disciplines in order to make informed career decisions.

## College of Health and Public Affairs

HPA II 210, 407-823-2359
Undergraduate Program Director: Dawn Oetjen
Web Address: http://www.cohpa.ucf.edu/health.pro

## Admission Requirements

none

## Degree Requirements

- Students should complete the General Education Program and the Common Program Prerequisites before transferring within the Florida Public University/Community College System

Students should consult with a departmental advisor

- The courses designated in sections 1 and 2 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours
- Students must earn at least a "C" (2.0) in each course accepted as a Common Program Prerequisite and Core Requirement (see sections 2 and 3 below)

No transfer course will be accepted with a grade lower than a "C."

- Students who change degree programs and select this major must adopt the most current catalog

Students should have access to a personal computer, modem, and software in order to interact with the instructional faculty

1. UCF General Education Program
A. Communication Foundations
B. Cultural Historical Foundations

Select MUL 2010 Enjoyment of Music or REL 2300
World Religions or THE 1020 Theater Survey or
PHI 2010 Intro to Philosophy
C. Mathematical Foundations 6 hrs

Select MAC 1105 College Algebra
Select STA 2014C Principles of Statistics or
STA 2023 Statistical Methods I
D. Social Foundations

6 hrs
Select POS 2041 American National Government
Select PSY 2013 General Psychology
E. Science Foundations

6 hrs
Select BSC 2010 General Biology
Select PHY 2053C College Physics I

## 2. Common Program Prerequisites

(0 hrs)
MAC 1105 College Algebra GEP
STA 2014C Principles of Statistics or GEP
STA 2023 Statistical Method I
BSC 2010C General Biology
GEP

## 3. Core Requirements - Lower Division

CGS 2100C Computer Fundamentals for Business 3 hrs
CHM 1032 General Chemistry 3 hrs
ECO 2023 Principles of Economics II 3 hrs

| HSC 2000 | Intro to the Allied Health Professions | 2 hrs |
| :--- | :--- | :--- |
| MAC 1114 | College Trigonometry | 3 hrs |
| PHY 2053L | College Physics I - Lab | 1 hr |

Core Requirements - Upper Division
HIM 3006 Foundations of Health Info Mngmnt 3 hrs
HSA $3122 \quad 3 \mathrm{hrs}$
HSA 4109 Managed Care 3 hrs
HSA 4120 Community Health Services 3 hrs
HSA $4180 \quad$ Org \& Mgt of Health Agencies or 3 hrs
HSA 4193 Health Care Automation 3 hrs
HSA 4220 Long Term Patient Management 3 hrs
HSA 4700 Health Science Research 3 hrs
HSC 3110C Medical Self Assessment 3 hrs

| HSC 3531 | Medical Terminology | 3 hrs |
| :--- | :--- | :--- |
| HSC 3640 | Health Law | 3 hrs |

HSC 4243 Analysis of Instruction 3 hrs
HSC $4500 \quad$ Epidemiology 3 hrs
HSC 4564 Healthcare Needs of the Elderly or 3 hrs

PHT 3259 Patient Care Skills
HSC 4653 Healthcare Ethics 3 hrs
HUN 3011 Human Nutrition or 3 hrs

HSC 3593 HIV Disease or
HSC 4008 Professional Development of the
Health Professions

## 4. Lower Level Electives

Number of hours depends upon the number of foreign language hours required

## 5. Upper Division Restricted Electives

( 15 hrs )
Up to 15 hours from related health science programs with departmental approval

## 6. Foreign Language Requirements

(0-8 hrs)
Admissions: Met by graduation requirement.
Graduation: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## 7. Program Exit Requirements

( 120 hrs )
The students must attain a minimum grade of "C" (2.0) in all Common Program Prerequisite courses and in all Core Requirements (see sections 2 and 3 above). An overall 2.0 GPA must be attained for all coursework (see sections $1,2,3$, and 4).

## 8. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted

Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

## Total Semester Hours Required

## 120 hours

## Related Programs:

The participating student may also consider applying for consideration to one or more of the following undergraduate professional degree options: Health Information Management, Athletic Training, Cardiopulmonary Sciences, Radiologic Sciences, Health Services Administration, Professional graduate study disciplines to which this degree option might lead: Physical Therapy, Social Work, Health Services Administration.

Related Minors: None

Transfer Notes:
Associate of Arts Degree recommended

## Honors

Honors option requires:

- Completion of a three credit directed readings course
- Completion of a three credit thesis course
- Open to students with a minimum 3.5 GPA in Health Sciences
- Minimum cumulative UCF 3.2 GPA

| Tentative Course Schedule for Entering Freshmen |  |  |  |
| :---: | :---: | :---: | :---: |
| Freshman Year |  |  |  |
| Fall 14 | 14 hrs | Spring | 16 hrs |
| ENC 1101 | 3 | ENC 1102 | 3 |
| CGS 1060 or CGS 2100C |  | 3 POS 2041 | 3 |
| CHM 1032 | 3 | BSC 2010C | 4 |
| MAC 1105 | 3 | PSY 2013 | 3 |
| HSC 2000 | 2 | ECO 2023 | 3 |

Sophomore Year
Fall
PHY 2053C
MAC 1114
3 or THE 1020 or PHI 2010
SPC 1600
3 STA 2014C or STA 2023

Foreign Lang I* or other
lower level courses
lower level courses

* if not satisfied in high school. If foreign language is fulfilled through other than classwork, student shall be required to complete 6-8 hours of lower division elective classwork.


## Junior Year

| Fall | $\mathbf{1 5} \mathbf{~ h r s ~ S p r i n g ~}$ | $\mathbf{1 5} \mathbf{~ h r s ~}$ |  |
| :--- | :---: | :--- | :---: |
| HSC 3110C | 3 | HSC 3531 | 3 |
| HIM 3006 | 3 | HSA 4180 or PET 4660 | 3 |
| HSC 3640 | 3 | HSA 4220 | 3 |
| HSA 3122 | 3 | HSC 4500 | 3 |
| HUN 3011 or HSC 4008 or | 3 | HSA 4120 | 3 |
| or HSC 3593 |  |  |  |

## Senior Year

Fall
HSA 4700
HSC 4564 or PHT 3259
HSA 4193
Elective
Elective

15 hrs Spring
3 HSC 4243
3 HSA 4109
3 HSC 4653
3 Elective
3 Elective

3
15 hrs

```
3
```

3
3
3
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HEALTH SERVICES ADMINISTRATION (B.S)

College of Health and Public Affairs
HPA II 210, 407-823-2359
Executive Director of HSA Programs: Myron Fottler
Undergraduate Program Director: Dawn Oetjen
Graduate Program Director: Timothy Rotarius

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog
- Students should complete the General Education Program and the Common Program Prerequisites before transferring within the Florida Public University/Community College System
- Students should consult with a departmental advisor
- The courses designated in sections 1 and 2 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours

UCF Residency Requirement: 30 hours

## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
C. Mathematical Foundations

Select MAC 1105
D. Social Foundations

Select ECO 2023
E. Science Foundations 6 hrs

## 2. Common Program Prerequisites

CGS 2100C Computer Fund for Business 3 hrs Applications

ECO 2023 Principles of Economics (Micro) GEP
ACG 2021 Financial Accounting 3 hrs
ACG 2071 Managerial Accounting 3 hrs
STA 2014C or STA 2023 Statistical Methods GEP
Students must earn a "C" (2.0) or better in each Common Program Prerequisite course.

## 3. Core Requirements

HSA 3122
HSA 3170
HSA 3210 Long Term Care Administration
HSA 4109 Principles of Managed Care

HSA 4120 Community Health Services 3 hrs
HSA 4180 Organization and Management for
Health Agencies 3 hrs

| HSA 4193 | Health Care Automation | 3 hrs |
| :--- | :--- | :---: |
| HSA 4502 | Risk Management | 3 hrs |
| HSA 4700 | Health Science Research Methods | 3 hrs |
| HSC 3531 | Medical Terminology | 3 hrs |
| HSC 3640 | Health Law | 3 hrs |
| HSC 4500 | Epidemiology | 3 hrs |


| HSC 4564 | Health Care Needs of the Elderly | 3 hrs |
| :--- | :--- | :---: |
| HSC 4653 | Health Care Ethics | 3 hrs |
| HSA 3430 | Health Care Economics | 3 hrs |
| Students must earn a "C" (2.0) or better in each Core Requirement course. |  |  |

## 4. Upper Division Restricted Electives

## 5. Program Exit Requirements

Students must earn a "C" (2.0) or better in each Health Services Administration elective course.

## 6. Electives

(variable)
Students are encouraged to take additional Health Service Administration courses as electives or other courses that will enhance their background in the health care industry. These may be used to build minors and certificates offered by the University. Examples include: Health Sciences, Gerontology, Public Administration, Criminal Justice, and Business. HSA elective courses include:

HSA 4941 HSA Internship

## 7. Foreign Language Requirements

(0-8 hrs)
Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## Graduation:

## none

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted

Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Related Programs: Gerontology Certificate, Public Administration, Health Information Management

Related Minors: Gerontology, Health Sciences, Information Systems, and Public Administration. Courses leading to a Certificate in Gerontology are appropriate.

## Transfer Notes:

Students with an Associate of Science degree in health care disciplines may receive directed field experience. Student field experience will be evaluated by the academic advisor.

Students without the Associate of Science degree should select elective hours with the advisor and complete the general education program or AA degree program.

## Honors

Honors Option Requires:

- Completion of a three credit directed readings course
- Completion of a three credit thesis course
- Open to students with a minimum 3.5 GPA in Health Services Administration
- Cumulative UCF 3.2 GPA
- Completion of 60 semester hours of college credit, including 12 graded upper division hours at UCF


## Tentative Course Schedule for Entering Freshmen

## Freshman Year*

Fall 14 hrs Spring 15 hrs

ENC 1101
PSY 2013 or SYG 2000 or ANT 2000

3 ENC 1102
3 ECO 2013
PSC 1121 or CHM 1020

3

Elective 3 Elective 3
Senior Year

| Fall | $\mathbf{1 5} \mathbf{~ h r s ~}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | ---: | :--- | ---: |
| HSA 4700 | 3 | HSC 4564 | 3 |
| HSC 3640 | 3 | HSA 4109 | 3 |
| HSC 4653 | 3 | Internship | 3 |
| HSA 4502 | 3 | HSA 3430 | 3 |
| Internship | 3 | Elective | 3 |

## Notes:

Students are urged to have access to a personal computer, modem, and appropriate software to interact with the University and professors.

A variety of internship opportunities are available for HSA majors. An internship is not required but highly recommended.

HISTORY (B.A.)

## College of Arts and Sciences

History Department, CNH 551,
http://pegasus.cc.ucf.edu/~history
E-mail: history@ucf.edu
E. Kallina, 407-823-2224

## Admission Requirements

## none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

Students must earn at least a "C-" (1.75) in each history course for it to be counted toward the major

- Co-op or internship credit can not be used in this major
- Students should consult with a departmental advisor

Departmental Residency Requirement consists of at least 18 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF History Department

- Students must compile a portfolio of their written work in history, completed inside and outside the classroom
- Students must complete 36 hours in history
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

| B. Cultural and Historical Foundations |  |
| :--- | ---: |
| Select AMH 2010 US History: 1492-1877 | 3 hrs |
| Select AMH 2020 US History: 1877-Present | 3 hrs |
| Select from GEP list | 3 hrs |
| C. Mathematical Foundations |  |
| Select MGF 1106 Finite Mathematics | 3 hrs |
| (may substitute a higher level math) |  |
| Prefer CGS 1060C Intro to Computer Sci | 3 hrs |
| D. Social Foundations | 6 hrs |
| E. Science Foundations | 6 hrs |

2. Common Program Prerequisites

AMH 2010* US History: 1492-1877
AMH 2020* US History: 1877-Present
*See Transfer Notes for possible substitutes

## 3. Core Requirements

HIS 4150 History \& Historians
Select one sequence
EUH 2000, 2001 Western Civilization I \& II
WOH 2012, 2022 World Civilization I \& II

## 4. Upper Division Restricted Electives

(Must be taken within the History Department)
Select six hours of approved history courses within three of the four geographic regions.
(21 hrs)

1) Asian, African, and Middle Eastern
2) British and European
3) Latin American
4) U.S. and Canadian

Select three hours of approved history courses
3 hrs

## 5. Departmental Exit Requirements

- Maintain a minimum GPA of 2.0 in upper division required courses attempted
- Submit a portfolio during the semester of graduation. The portfolio will include representative samples of the student's written work including, but not limited to, book critiques, in-class essay exams, and term papers.
- Computer Competency met by completion of the major
- Students must complete at least 18 of the required 36 History hours at UCF


## 6. Foreign Language Requirements

## (0-8 hrs)

Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam. Majors who are contemplating graduate school should complete two years of a foreign language, preferably one functional in their area of historical interest.

## 7. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Related Programs: Humanities

Related Minors: African-American Studies, American Studies, Asian Studies, History, Humanities, Latin American and Iberian Area Studies, Russian Area Studies, Women's Studies

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for upper division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- AMH 2010* \& 2020*: may use any two introductory courses with an AMH, EUH, LAH, ASH, HIS or WOH prefix. However AMH 2010 and 2020 are prerequisites for all subsequent American History courses and will need to be taken for the major.
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## HISTORY 3+2 PROGRAM (B.A. and M.A.)

## College of Arts and Sciences

CNH 551, 407-823-2224
Chair: Richard C. Crepeau
Graduate Program Director: Rosalind J. Beiler
http://pegasus.cc.ucf.edu/~history
Undergraduate program E-mail: history@ucf.edu
Graduate program E-mail: hisgrad@pegasus.cc.ucf.edu

Purpose of this degree - This program allows highly qualified undergraduate majors in History to begin taking graduate-level courses which will count towards their master's degree while completing their baccalaureate degree program. Participation will enable completion of a B.A. and M.A. in five instead of six years for students enrolled in full-time course work.

## Admission Requirements

- Students apply for admission to the $3+2$ program at the end of their junior year or after 12 hours of upper-level history course work
- A 3.5 GPA or better in History courses and a 3.25 overall GPA or better
- Graduate Record Exam (GRE) scores of 1050 on both the verbal and quantitative sections of the exam and a score of at least 550 on the verbal section
- Completion of a graduate application, including an essay indicating reasons for desiring to complete the $3+2$ program, and three letters of recommendations from History Department faculty
- Students will be formally admitted to the Master's program following receipt of the BA degree


## Undergraduate Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog. Students must earn at least a "B" (3.0) in each history course for it to be counted toward the major

- Co-op or internship credit can not be used in this major

Students should consult with a departmental graduate coordinator

- Departmental Residency Requirement consists of at least 18 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF History Department. Students may
substitute up to nine hours of 5000 - or 6000 -level courses to
meet this requirement.
- Students must compile a portfolio of their written work in History completed inside and outside the classroom
- The B.A. will be awarded after completion of 36 hours of History classes

The M.A. will be awarded upon completion of the program

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours (see History major requirements)


## Graduate Degree Requirements

- The graduate requirements listed in the Graduate Catalog take precedence over those listed below.

Students admitted to the 3+2 Program may take on 5000-level course the first semester of their senior year

- After successfully completing one 5000-level course, students will be eligible to take HIS 6159 (Historiography) and another 5000-level course or the 6000 -level seminar following the 5000 -level colloquium they have already completed
- Students may substitute these nine hours of graduate-level work for 9 hours of 3000- or 4000-level undergraduate courses
- Students need to pay fees at the graduate rate for the graduate courses they take
- Schedule for students enrolled full-time in the 3+2 Program:

Students complete nine hours of graduate-level courses their senior year

- Students enroll in at least three hours of graduate-level course work the summer after they receive their B.A.
- Students enroll in nine hours of graduate-level courses in both Spring and Fall semesters during their M.A. year
- Students complete the Capstone course, pass their preliminary exams, and fulfill their foreign
language requirement by the end of their first MA year
- $\quad$ Students complete and defend a master's thesis in six hours

Undergraduate Requirements

1. UCF General Education Program
(36 hrs)
(See the History major in this catalog for track specific GEP requirements)

## 2. Common Program Prerequisites

AMH 2010*
AMH 2020*
*See Transfer Notes for possible substitutes

## 3. Core Requirements

HIS $4150 \quad$ History \& Historians 3 hrs
Select one sequence
EUH 2000, 2001 Western Civilization I \& II 6 hrs
WOH 2012, 2022 World Civilization I \& II

## 4. Upper Division Restricted Electives

(21 hrs)
(Must be taken with the History Department)
Select six hours of approved History courses within three of the four geographic regions

1. Asian, African, and Middle Eastern
2. British and European
3. Latin American
4. U.S. and Canadian

Select three hours of approved History courses
3 hrs

Students may substitute nine hours of 5000- or

## 5. Departmental Exit Requirements

Maintain a minimum GPA of 3.5 in upper division required courses attempted

- Submit a portfolio during the semester of graduation. The portfolio will include representative samples of the student's written work including, but not limited to, book critiques, in-class essay exams, and term papers
- Students must complete at least 18 of the required 36 History hours at UCF
- Computer competency met by completion of the major


## 6. Foreign Language Requirements

## $0-8 \mathrm{hrs}$

Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam. Majors who are participating in the $3+2$ Program should complete two years of a foreign language, preferably one functional in their area of historical interest. Students may take the department's M.A. foreign language proficiency exam immediately following the completion of their foreign language course work.

## 7. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements - BA

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Overall History MA Requirements

(36 hrs)*

* Nine hours of graduate work are earned in the senior year, in consultation with the History graduate director.


## 1. Required Graduate Courses

HIS 6159 Historiography 3 hrs
HIS 6XXX Capstone Course 3 hrs

HIS 6971 Thesis 6 hrs

## 2. Courses in Area of Concentration <br> ( 18 hrs )

Assumes that nine additional hours of graduate courses were taken during the senior year.
(Eastern Hemisphere: African, Asian, European, or Middle Eastern; or Western Hemisphere: Caribbean, North American, or South American)

## 3. Outside Area of Concentration in History ( 6 hrs )

## 4. Foreign Language Requirement

Students will also be expected to demonstrate a reading compe-tency in one foreign language. The foreign language competence must be completed one semester prior to the thesis defense.

## 5. Examination Requirements

Each candidate for the M.A. in History must pass written examinations in two fields upon conclusion of regular course work and before beginning a thesis. These examinations must be taken and passed as part of the requirements for the capstone course. Each student will also submit a thesis prospectus and preliminary bibliography, which the three members of the student's thesis committee judge acceptable as the preliminary step to beginning the thesis.

Minimum Hours Required for M.A. - $\mathbf{3 6}$ Semester Hours (nine hours of which also count toward the B.A. degree)

Related Programs: Humanities

Related Minors: African-American Studies, American Studies, Asian Studies, History, Humanities, Latin American and Iberian Area Studies, Russian Area Studies, Women's Studies

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for upper division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- AMH 2010* \& 2020*: may use any two introductory courses with an AMH, EUH, LAH, ASH, HIS or WOH prefix. However AMH 2010 and 2020 are prerequisites for all subsequent American History courses and will need to be taken for the major.


## HOSPITALITY MANAGEMENT (B.S.)

Rosen School of Hospitality Management<br>Classroom Building I, Room 302 407-823-2188<br>http://www.hospitality.ucf.edu

E-mail: hospitality@mail.ucf.edu
Interim Dean: Abraham Pizam

Degree Requirements

1. UCF General Education Program
A. Communication Foundations 9 hrs
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations

Select MAC 1105 College Algebra 3 hrs
Select CGS 2100C Computer Fundamentals for Bus 3 hrs
D. Social Foundations

Select ECO 2013 Principles of Economics I or
ECO 2023 Principles of Economics II
Select one: PSY 2013, SYG 2000, ANT 2000
E. Science Foundation
2. Common Program Prerequisites
(3 hrs)
HFT 1000 Introduction to Hospitality/Tourism 3 hrs
3. Hospitality Management Core (49 hrs)

| A. Fundamentals |  | (3hrs) |
| :---: | :---: | :---: |
| MAC 1105 | College Algebra | GEP |
| CGS 2100C | Computer Fundamentals for Business | GEP |
| ECO 2013 | Principles of Economics I or | GEP |
| ECO 2023 | Principles of Economics II |  |
| HFT 3540 | Guest Services Management | 3 hrs |
| B. Managerial Tools |  | (21 hrs) |
| HFT 2403 | Hospitality Financial Accounting | 3 hrs |
| HFT 3431 | Hospitality Managerial Accounting | 3 hrs |
| HFT 2500 | Hospitality Marketing | 3 hrs |
| HFT 2220 | Hospitality Human Resource Mngmnt | 3 hrs |
| HFT 2444 | Hospitality Information Systems | 3 hrs |
| HFT 3600 | Legal Environment in Hospitality | 3 hrs |
| HFT 4295 | Strategic Mngmnt in Hospitality Ind'y | 3 hrs |
| C. Sectoral Studies |  | (21 hrs) |
| HFT 2254 | Lodging Operations | 3 hrs |
| FSS 2221C | Quantity Food Preparation | 3 hrs |
| HFT 3700 | Tourism Management | 3 hrs |
| HFT 2750 | Meetings/Convent'n/Exposit'n Ind'stry | 3 hrs |
| HFT 3261 | Restaurant Management | 3 hrs |
| HFT 3274 | Principles of Resort Time Sharing | 3 hrs |
| HFT 4755 | Theme Park and Attraction Mngmnt | 3 hrs |
| D. Internships |  | ( 3 hrs ) |
| HFT 3941 | Practicum I | 1 hr |
| HFT 3941 | Practicum II | 1 hr |
| HFT 4941 | Practicum III | 1 hr |
| E. Guest Lectures |  | (1 hr) |
| HFT 3933 | Distinguished Lectures in Hospitality |  |

Management 1 hr

## 4. Special School Requirements:

- Grades of "C" (2.0) or below do not transfer into the Hospitality Management core or restricted electives.
- Students not in attendance at the first meeting of any School course may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.

Final exams will be given during Exam Week only

- Transfer students to this program must take a minimum of thirty (30) credit hours in Hospitality Management core classes or restricted electives at UCF.


## 5. Restricted Electives:

Students must take 18 credit hours of Hospitality Management courses from the following list for the Generalist track. Alternatively, students may choose one of the six specialized career tracks as outlined below.

## A. Generalist Track

## Choose six advanced courses from the following list:

HFT 3313 Hospitality Physical Plant Management
HFT 4343 Hospitality Facilities Planning \& Design 3 hrs
HFT 4298 Hospitality Business Consulting 3 hrs
HFT 4473 Hotel Development Analysis 3 hrs
HFT 3785 Management of Gaming Enterprises 3 hrs
HFT 3807 Multi-Unit Food Service Organizations 3 hrs
HUN 3013 Nutrition Concepts \& Issues in Food Svc 3 hrs
HFT 4861 Beverage Management 3 hrs
FSS 3124 Supply and Procurement Management 3 hrs
FSS 4135 Contract Food Service Management 3 hrs
FSS 3232C Intermediate Techniques of Food

3 hrs
Production 3 hrs
FSS 4286C Catering and Banquet Organization 3 hrs
HFT 3511 Convention \& Conference Sales 3 hrs
HFT 4753 Convention \& Conference Services 3 hrs
HFT 4754 Exhibit \& Trade Show Operations 3 hrs
HFT 4735 Tourism Geography 3 hrs
HFT 4722 Travel Agency Management 3 hrs
HFT 4762 Current Practices in the Airline Industry 3 hrs
HFT 4345 Vacation Ownership Resort Development 3 hrs
HFT 4462 Hospitality Industry Finance 3 hrs
HFT 3741 Meeting Planning 3 hrs
HFT 3757 Event Management 3 hrs
HFT 4266 Restaurant Brand Management 3 hrs
HFT 4268 Case Studies in Multi-Unit Restaurant
Management
3 hrs
FSS 4844 Sanitation Mgt in Foodservice Industry 3 hrs
HFT 3213 Vacation Ownership Resort Management 3 hrs
HFT 4522 Vacation Ownership Resort Sales Tactics
and Strategies 3 hrs
HFT 4442 Vacation Ownership Resort Reservations/
Data Base Systems 3 hrs
HFT 4759 Product Development in Theme Parks
and Attractions 3 hrs
HFT 4758 Contemporary Issues in the Theme Park
and Attraction Industry 3 hrs
HFT 4532 Merchandise Management in Theme
Parks and Attractions 3 hrs
HFT 4754 Exhibit and Trade Show Operations 3 hrs
FSS 4286C Catering \& Banquet Organization 3 hrs
HFT 3741 Meeting Planning 3 hrs
HFT 3757 Event Management 3 hrs
HFT 3511 Convention and Conference Sales 3 hrs

## C. Food Service and Restaurant Operations Management

Track
(18 hrs)
HFT 3807 Multi-Unit Food Service Organizations 3 hrs
HFT 4266 Restaurant Brand Management 3 hrs
FSS 4844 Sanitation Mgt in Foodservice Industry 3 hrs
HFT 4861 Beverage Management 3 hrs
FSS 3124 Supply and Procurement Management 3 hrs
Plus one course from the following list: 3 hrs
FSS 4135 Contract Food Service Management
FSS 3232C Intermediate Techniques of Food
Production
FSS 4286C Catering and Banquet Organization
HUN 3013 Nutrition Concepts \& Issues in Food Svc
HFT 4343 Hospitality Facilities Planning \& Design
HFT 4268 Case Studies in Multi-Unit Restaurant
Management

## D. Vacation Ownership Resort Management Track (18 hrs)

HFT 4345 Vacation Ownership Resort Development 3 hrs
HFT 3213 Vacation Ownership Resort Management 3 hrs

HFT 4343 Hospitality Facilities Planning \& Design 3 hrs HFT 4462 Hospitality Financial Management 3 hrs
E. Theme Park and Attraction Management Track ( $\mathbf{1 8} \mathbf{~ h r s ) ~}$

| F. Tourism Management Track | (18 hrs) |  |
| :--- | :--- | :--- |
| HFT 4735 | Tourism Geography | 3 hrs |
| HFT 4722 | Travel Agency Management | 3 hrs |
| HFT 4762 | Current Practices in the Airline Industry | 3 hrs |
| HFT 4754 | Exhibit \& Trade Show Operations | 3 hrs |
| HFT 3757 | Event Management | 3 hrs |
| Plus one course from the Generalist Track (A) | 3 hrs |  |

## G. Lodging Management Track

HFT 3313 Hospitality Physical Plant Management

3 hrs
HFT 4343 Hospitality Facilities Planning \& Design ..... 3 hrs
HFT 4473 Hotel Development Analysis ..... 3 hrs
HFT 4753 Convention \& Conference Services ..... 3 hrs
HFT 4462 Hospitality Financial Management ..... 3 hrs
Plus one course from the Generalist Track (A) ..... 3 hrs

## 6. Foreign Language Requirements

 (0-8 hrs)State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 7. University Minimum Exit Requirements

## A 2.0 UCF GPA

48 semester hours of upper division credit completed
30 semester hours of coursework completed in residency (last 30 hours) at UCF
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Military credit permitted

- Completion of the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## 8. Unrestricted Electives

(6-14 hrs)
As necessary to result in 120 total credit hours.

## Total Semester Hours Required

120 hours

## Community/Junior College Transfer Notes

- Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in the UCF School of Hospitality Management. Grades below "C" (2.0) do not transfer into the Hospitality Management core or restricted electives.
- Florida Public Community College students are encouraged to complete the general education requirements prior to transferring to UCF.

A minimum of 30 semester hours must be completed at UCF within the hospitality major.
Orientation and advising are two of the most valuable tools that a student can make use of when transferring to UCF. Students should take advantage of both.

## FOUR YEAR PLAN OF STUDY FOR HOSPITALITY MANAGEMENT* *Plan your required nine summer credit hours into your course of study.

## Freshman

Fall
ENC 1101
Cult-Hist I
MAC 1105
HFT 1000
PSY 2013, SYG 2000 or
ANT 2000

15 hrs Spring
3 ENC 1102
3 Cult-Hist II
3 SPC 1600C
3 CGS 2100C

15 hrs
3
3

3 HFT 2750 Meet/Conv/Exp
3

Sophomore
Fall 15 hrs Spring 15 hrs
ECO 2013 or ECO 20233 Cult/Hist Foundation 3
FSS 2221C Quant Food Prep 3 Science Foundation II 3
Science Foundation I 3 HFT 2403 Hosp Fin Acct 3
HFT 2254 Lodging Ops
HFT 2444 Hosp Info Sys
3 HFT 2220 Hosp Hum Res
3
3 HFT 2500 Hosp Marketing 3

Fall
14 hrs
Spring
16 hrs

| HFT 3540 Guest Svcs Mgmt | 3 | HFT 3700 Tourism Mgt | 3 |
| :--- | :---: | :---: | :---: |
| HFT 3600 Legal Environ | 3 | HFT 3261 Restaurant Mgt | 3 |
| HFT 4755 Theme Park Mgmt | 3 | HFT 3274 Prin Res Tim Shr | 3 |
| Hospitality Elective | 3 | Hospitality Elective | 3 |
| HFT 3941 Practicum I | 1 | HFT 3941 Practicum II | 1 |
| HFT 3933 Dist Lect in Hosp | 1 | HFT 3421 Hosp Mgr Acct | 3 |

## Senior

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | :---: | :---: | :---: |
| HFT 4941 Practicum III | 1 | HFT 4295 Strat Mgt in Hosp | 3 |
| Hospitality Elective | 3 | Hospitality Elective | 3 |
| Hospitality Elective | 3 | Hospitality Elective | 3 |
| Unrestricted Electives | 8 | Unrestricted Electives | 6 |

## HOSPITALITY MANAGEMENT (B.S.)

## A.S. to B.S. TRACK

(Completion program for individuals who have a statewide articulated AS degree from a Florida public community college)

## Rosen School of Hospitality Management

Classroom Building I, Suite 302 407-823-2188
http://www.hospitality.ucf.edu
E-mail: hospitality@mail.ucf.edu
Interim Dean: Abraham Pizam

## Admission Requirements

Completion of a Statewide Articulated A.S. in Hospitality Management from a Florida Public Community College which is composed of 64 hours of course work, including at least 18 hours of transferable general education courses.

## Degree Requirements

## 1. UCF General Education Program (GEP)

Students will complete 18 hours of selected general education courses. The specific courses will be determined in coordination with general education courses completed as part of the articulated A.S. and come from the following areas:
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations
D. Social Foundations

## 2. Common Program Prerequisites

Completed as part of the approved A.S. program.

## 3. Hospitality Management Core

HFT 3540 Guest Services Management
HFT 3421 Hospitality Managerial Accounting
HFT 4295 Strategic Mgmt in Hospitality Ind' 3 hrs
HFT 3700 Tourism Management 3 hrs
HFT 3261 Restaurant Management 3 hrs
HFT 3274 Principles of Resort Time Sharing 3 hrs
HFT 4755 Theme Park and Attraction Mngmnt 3 hrs
HFT 3941 Practicum II 1 hr
HFT 4941 Practicum III 1 hr
HFT 3933 Distinguished Lectures in Hosp. Mgt. 1 hr

## 4. Special School Requirements:

- Grades of "C-" (1.75) or below do not transfer into the Hospitality Management core or restricted electives.
- Students not in attendance at the first meeting of any School course may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.

Final exams will be given during Exam Week only.

## 5. Restricted Electives

Students must take 18 credit hours of Hospitality Management courses from the following list for the Generalist track. Alternatively, students may choose one of the six specialized career tracks as outlined below.

## A. Generalist Track

Choose six advanced courses from the following list:

| HFT 3313 | Hospitality Physical Plant Management |  |
| :---: | :---: | :---: |
| HFT 4343 | Hospitality Facilities Planning \& Design | 3 hrs |
| HFT 4298 | Hospitality Business Consulting | 3 hrs |
| HFT 4473 | Hotel Development Analysis | 3 hrs |
| HFT 3785 | Management of Gaming Enterprises | 3 hrs |
| HFT 3807 | Multi-Unit Food Service Organizations | 3 hrs |
| HUN 3013 | Nutrition Concepts \& Issues in Food Svc | 3 hrs |
| HFT 4861 | Beverage Management | 3 hrs |
| FSS 3124 | Supply and Procurement Management | 3 hrs |
| FSS 4135 | Contract Food Service Management | 3 hrs |
| FSS 3232C | Intermediate Techniques of Food |  |
| Production | 3 hrs |  |
| FSS 4286C | Catering and Banquet Organization | 3 hrs |
| HFT 3751 | Convention \& Conference Sales | 3 hrs |
| HFT 4753 | Convention \& Conference Services | 3 hrs |
| HFT 4754 | Exhibit \& Trade Show Operations | 3 hrs |
| HFT 4735 | Tourism Geography | 3 hrs |
| HFT 4722 | Travel Agency Management | 3 hrs |
| HFT 4762 | Current Practices in the Airline Industry | 3 hrs |
| HFT 4275 | Vacation Ownership Resort Development | 3 hrs |
| HFT 4462 | Hospitality Industry Finance | 3 hrs |
| HFT 3741 | Meeting Planning | 3 hrs |
| HFT 3757 | Event Management | 3 hrs |
| HFT 4266 | Restaurant Brand Management | 3 hrs |
| HFT 4268 | Case Studies in Multi-Unit Restaurant |  |
| Management | 3 hrs |  |



## B. Convention/Conference Management Track (18 hrs)

| HFT 4753 | Convention and Conferences Services | 3 hrs |
| :--- | :--- | :---: |
| HFT 4754 | Exhibit and Trade Show Operations | 3 hrs |
| FSS 4286C | Catering \& Banquet Organization | 3 hrs |
| HFT 3741 | Meeting Planning | 3 hrs |
| HFT 3757 | Event Management | 3 hrs |
| HFT 3751 | Convention and Conference Sales | 3 hrs |

C. Food Service and Restaurant Operations Management Track
hrs)

HFT 3807 Multi-Unit Food Service Organizations 3 hrs
HFT 4266 Restaurant Brand Management 3 hrs
FSS 4844 Sanitation Mgt in Foodservice Industry 3 hrs
HFT 4861 Beverage Management 3 hrs
FSS 3124 Supply and Procurement Management 3 hrs
Plus one course from the following list: 3 hrs

FSS 4135 Contract Food Service Management
FSS 3232C Intermediate Techniques of Food Production
FSS 4286C Catering and Banquet Organization
HUN 3013 Nutrition Concepts \& Issues in Food Svc
HFT 4343 Hospitality Facilities Planning \& Design
HFT 4268 Case Studies in Multi-Unit Restaurant
Management

## D. Vacation Ownership Resort Management Track (18 hrs)

HFT 4275 Vacation Ownership Resort Development 3 hrs
HFT 4274 Vacation Ownership Resort Management 3 hrs
HFT 4522 Vacation Ownership Resort Sales Tactics
and Strategies 3 hrs
HFT 4442 Vacation Ownership Resort Reservations/
Data Base Systems 3 hrs
HFT 4343 Hospitality Facilities Planning \& Design 3 hrs
HFT 4462 Hospitality Financial Management 3 hrs

## E. Theme Park and Attraction Management Track ( 18 hrs )

HFT 3757 Event Management 3 hrs
HFT 4759 Product Development in Theme Parks and Attractions 3 hrs

HFT 4758 Contemporary Issues in the Theme Park and Attraction Industry 3 hrs

HFT 4532 Merchandise Management in Theme
Parks and Attractions 3 hrs
FIL 3102 Writing for Film and TV 3 hrs
Plus one course from the Generalist Track (A) 3 hrs
F. Tourism Management Track (18 hrs)
HFT 4735 Tourism Geography 3 hrs
HFT 4722 Travel Agency Management 3 hrs
HFT 4762 Current Practices in the Airline Industry 3 hrs
HFT 4754 Exhibit \& Trade Show Operations 3 hrs
HFT 3757 Event Management 3 hrs
Plus one course from the Generalist Track (A) 3 hrs

| G. Lodging Management Track | (18 hrs) |  |  |
| :--- | :--- | :--- | :--- |
| HFT 3313 | Hospitality Physical Plant Management |  | 3 hrs |
| HFT 4343 | Hospitality Facilities Planning \& Design | 3 hrs |  |
| HFT 4473 | Hotel Development Analysis | 3 hrs |  |
| HFT 4753 | Convention \& Conference Services | 3 hrs |  |
| HFT $4462 \quad$ Hospitality Financial Management | 3 hrs |  |  |
| Plus one course from the Generalist Track (A) | 3 hrs |  |  |
|  |  |  |  |
| 6. Foreign Language Requirements | $\mathbf{( 0 - 8 ~ h r s )}$ |  |  |

State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 7. University Minimum Exit Requirements

## - A 2.0 UCF GPA

42 semester hours of upper division credit completed
30 semester hours of coursework completed in residency (last 30 hours) at UCF

- Completion of the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## 9. Cooperative Education

800 hours of supervised work experience

## Total Semester Hours Required

## Community College Transfer Notes

- Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in the UCF School of Hospitality Management. Grades of "D" (1.0) or below do not transfer into the program
- ACG X001 and X011 will substitute for ACG 2021 at UCF.
- Florida Public Community College students are encouraged to complete the general education requirements prior to transferring to UCF.
- A minimum of 30 semester hours must be completed at UCF within the hospitality major.
- Orientation and advising are two of the most valuable tools that a student can make use of when transferring to UCF. Students should take advantage of both.
- The department may allow substitutions for Hospitality classes taken at the community college.
| Home | Index | Search | News | Events | Contact UCF | Help |


## 124 hours

requer


#### Abstract

Students should check with the Hospitality Management Department for approval of substitutions.


|Home | Index | Search |News | Event |Contact UCF|Help|

HUMANITIES (B.A.)

College of Arts and Sciences
Philosophy Department, CNH 411,
http://www.cas.ucf.edu/philosophy/
E-mail: philosophy@ucf.edu
Shelley Park, 407-823-2273

## Admission Requirements

## none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Co-op or internship credit can not be used in this major without prior approval by the chair.
- Students must earn at least a "C" (2.0) in each required course.
- Students should consult with a departmental advisor.

Departmental Residency Requirement consists of at least 18 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Philosophy Department.

- Courses designated in 1 (General Ed Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours.


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations

Select HUM 2211 Humanistic Tradition I
Select HUM 2230 Humanistic Tradition II
(36 hrs)
9 hrs

3 hrs
3 hrs

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Prefer STA 1060C Statistics Using Excel
D. Social Foundations
E. Science Foundations

## 2. Common Program Prerequisites

none

## 3. Core requirements

 (24 hrs)NOTE: Appropriate special topics courses in philosophy or humanities may be substituted for some core courses with prior approval by department advisor.

Humanities Foundations (9 hrs)
Select three courses:
HUM 3431 Ancient Humanities
HUM 3435 Medieval Humanities
HUM 3255 Modern Humanities
HUM 3251 Contemporary Humanities
Humanistic/Religious Traditions (9 hrs)
Select three courses:
HUM 3401 Asian Humanities
HUM 3417 Hindu Thought and Culture
HUM 3419 Islamic Thought and Culture
HUM 3552 Christian Thought
HUM 3553 Moses, Jesus, \& Mohammed
ANT 3311 Indians of the Southeastern U.S.
JST 3401 The Jewish People I
Applications

## Select two courses:

PHI 3601 Practical Wisdom
PHI 3803 Philosophy and Creativity
PHI 3033 Philosophy, Religion, and the Environment
PHM 3123 Feminist Theories
REL 3162 Healing: Culture, Art, and Praxis
HUM 4554 Religious Quest and the Human Dilemma
HUM 4330 Performance Theory

## 4. Upper division Restricted Electives

(6 hrs)
Select two courses from the above list that are not being used to satisfy Core Requirements and/or from the following:

HUM 3320 Contemporary Multicultural Studies
HUM 4301 Classical Ideal
HUM 4303 Spiritual Ideal
PHI 3700 Philosophy of Religion
PHI 3800 Aesthetics
PHI 4804 Critical Theory

## 5. Honors in the Major

Students considering graduate school in humanities are strongly encouraged to take Honors in the Major. Requirements are as follows:

Core and Elective Requirements
(30 hours)
Same requirements as for regular majors

## Honors Thesis

HUM 4903H Honors Directed Readings 3 hrs

HUM 4970H Honors Thesis 3 hrs
Additional Requirements
Application and admission through the Humanities Honors Coordinator

Fulfill University requirements for Honors in the Major
Earn a "B" (3.0) or better in both HUM 4903H and HUM 4970H
Maintain a UCF GPA of at least 3.2 and a Humanities GPA of at least 3.5
Successful completion and oral defense of Honors thesis

## 6. Departmental Exit Requirements

- Either HUM 4970H: Honors Thesis (3 hrs) or organization and submission of a portfolio (HUM 4906-1 hr) of one's work in humanities to a Departmental committee for approval prior to graduation.
- Earn a "C" (2.0) or better in each upper division required courses
- Computer Competency met by HUM 4970H, HUM 4906, or by STA 1060C.
- To avoid delaying graduation, you must request a review of requirements prior to registering for your last term.


## 7. Foreign Language Requirements

 (0-8 hrs)Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam. Majors who are contemplating graduate school should complete
two years of a foreign language, preferably one functional in their area of proposed graduate interest.

## 8. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside the department.

## 9. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: Philosophy

Related Minors: Environmental Studies, Humanities, Philosophy, Religious Studies

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

[^6]INDUSTRIAL ENGINEERING (B.S.I.E.)

College of Engineering and Computer Science
Industrial Engineering \& Management Systems (IEMS) Department, EB II 312, 407-823-2204, Fax: 407-823-3413, Home Page: http://ie.engr.ucf.edu/

Bill Thompson, E-Mail: wthompso@ mail.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes engineering academic advisement and registration for first-semester UCF classes; see also the section, Orientation, found elsewhere in this catalog.

## Degree Requirements

- Each engineering student is assigned a qualified engineering academic advisor in the department of his/her major. Each student should seek academic advisement before registering for classes each semester to minimize excess hours and to ensure that satisfactory academic progress is being maintained.


## 1. UCF General Education Program for Engineering

## Students

 (38 hrs)The UCF General Education Program (GEP) is described in the section, General Education Program, found elsewhere in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from within the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations 9 hrs

## 1. Take ENC 1101

3. Prefer SPC 1016
B. Cultural and Historical Foundations
9 hrs
C. Mathematical Foundations
7 hrs
4. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
5. Take STA 3032 ( 3 hrs ). Note: Calculus II is the prerequisite for this course.
D. Social Foundations
6. Take ECO 2013 or ECO 2023.
7. Take ANT 2000, PSY 2013, or SYG 2000.
E. Science Foundations
8. Take PHY 2048/48L.
9. Take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

 (19 hrs)These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements, as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHS 1440 Fundamentals of Chemistry for Eng 4 hrs
(CHM 2045/45L will substitute)
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)
MAC 2283 Calculus for Scientists \& Engineers III 4 hrs
(MAC 2313 will substitute)

| MAP 2302 | Differential Equations | 3 hrs |
| :--- | :--- | :---: |
| PHY 2048/48L | Physics for Engineers \& Scientists I | GEP |
| PHY 2049/49L | Physics for Engineers \& Scientists II | 4 hrs |
| ENC 1101 | Composition I | GEP |
| ENC 1102 | Composition II | GEP |
| Humanities Courses | GEP |  |
| Social Science Courses | GEP |  |
| Humanities $\boldsymbol{o r}$ Social Sciences | GEP |  |

## 3. Courses Required for the Major

The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.250 GPA in completing these courses, together with the technical elective courses listed in 4. below and with the senior design courses listed in $\mathbf{5}$. below. Independent study courses generally do not satisfy major requirements and normally are awarded grades of I, S, or U.

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1111C Engineering Computer Graphics 2 hrs
EGN 1930 ST: Engineering Concepts \& Methods 1 hr
EGN 3210 Engineering Analysis \& Computation 3 hrs
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics 3 hrs
EGN 3358 Thermo-Fluids-Heat Transfer or
EGN 3343 Thermodynamics 3 hrs
EGN 3365 Structure \& Properties of Materials 3 hrs
EGN 3930 ST: Principles of Electrical Engnring 3 hrs
EGN 3613 Engineering Economic Analysis 2 hrs
EGN 4624 Engineering Administration 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
EIN 3304
Introduction to IE \& MS

| EIN 3314C | Work Measurement \& Design | 3 hrs <br> EIN 3354 |
| :--- | :--- | :--- |
| hrs |  |  |
| Principles of Cost Engineering |  |  |$\quad 3$

## 4. Approved Technical Electives

(3 hrs)
Technical electives are available in the BSIE program to address specific student interests in a variety of technical areas. Students should consult with their assigned academic advisor for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 5. Departmental Graduation Requirements <br> (6 hrs)

EIN 4116C Systems Analysis \& Design
3 hrs
EIN 4891C IE Senior Design Project 3 hrs
Take the Engineering Intern Exam during the Senior year.

## 6. Foreign Language Requirements

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation: None.

## 7. University Minimum Graduation Requirements

A 2.0 UCF GPA.

60 semester hours earned after any CLEP award.
48 semester hours of upper division credit completed.
32 semester hours of regular courses completed at UCF.

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted.

Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable).

## Total Semester Hours Required:

128 hours

Related Programs: Mechanical Engineering.

## Related Minors:

none

## Transfer Notes:

- Courses taken from Community Colleges do not substitute for Upper Division Courses
- Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information with his/her petition for this evaluation.


## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Industrial Engineering - 128 semester hours required <br> FIRST YEAR

| Fall | 12 hrs $\mathbf{1 , 2}$ | Spring | 12 hrs ${ }^{1,2}$ |  |
| :--- | :---: | :--- | :--- | :--- |
| *CHS 1440 Fund of Chm/Engrs | 4 | *ENC 1102 English Comp II | 3 |  |
| *ENC 1101 English Comp I | 3 | *MAC 2282 Calc Sci \& Eng II | 4 |  |
| *MAC 2281 Calc Sci \& Eng I | 4 | EGN 1930 ST Eng Conc\&Meth | 1 |  |

Summer ..... 9 hours ${ }^{1}$
EGN 3210 Eng Anal-Comp ..... 3
*SPC 1016 Tech Presentations ..... 3
*ECO 2013 or ..... 3
ECO 2023 Prin of Econ I, II
SECOND YEAR
Fall 13 hrs ${ }^{1}$ Spring ..... 12 hrs ${ }^{1}$
*PHY 2049/L Phys Engr/Sci II 4 EGN 3321 Engr Anal-Dynamics ..... 3
EGN 3310 Engr Anal-Statics 3 *MAP 2302 Diff Equations ..... 3
EIN 3304 Intro to IE \& Mgt Sys 2 STA 3032 Prob \& Stats Engrs ..... 3
*MAC 2283 Calc Sci \& Eng III 4 EGN 3930 ST: Prin of Elec Eng ..... 3
Summer $\quad 10$ hours ${ }^{1}$
EGN 3365 Strctr \& Prop Matls 3
EGN 3613 Engrng Econ Anal ..... 2
*Social Foundations 2 ..... 3
*EGN 1111C Cmptr Graphics ..... 2
THIRD YEAR
Fall 15 hrs Spring ..... 12 hrs $^{1}$
EIN 3314C Work Meas \& Dsgn 3 EIN 4364C Indus Fcty Pln/Dsgn ..... 3
EIN 4391C Manufctrng Engnrng 3 +ESI 4221 Empirical Mthds - IE ..... 3
EIN 4333C Industrial Cont Sys 3 +ESI 4523C Systems Simulation ..... 3
Summer 9 hours $^{1}$+EGN 4624 Engineering Admin 3EGN 3358 Therm-Flds-Ht Trans
or EGN 3343 Thermodynamics ..... 3
*Cult \& Hist Foundations 1b ..... 3
FOURTH YEAR
Fall 12 hrs Spring 12 hrs
+EIN 4118C IE Applctns Cmptrs 3 EIN 4891C IE Sr. Design Proj ..... 3
EIN 4116C Sys Anal \& Dsgn 3 Technical ElectiveESI 4234 Quality Engineering
3 *Cultural \& History III ..... 3
*Cult \& Hist Foundations 1a 3 *Science Foundations II ..... 3

## Notes:

1. Courses marked with an asterisk (*) are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.
2. EGN 1006 and EGN 1930 are required courses for incoming freshmen only. The credits for these two courses (one hour each) may, with prior approval of the department academic advisor, be moved to the area 4. Approved Technical Electives.
3. Courses with a plus (+) are courses for which an appropriate graduate class substitution can be made. See advisor for accepted substitution list.

## Integrated BS/MS Degree Program

The IEMS department offers the Integrated BS/MS Program to students of high academic standing. This program allows up to nine graduate hours to be substituted for specified BSIE requirements. See advisor for appropriate substitutions.
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Orlando, Florida
(407) 823-2000

INFORMATION SYSTEMS TECHNOLOGY (B.S.)

## College of Engineering and Computer Science

Engineering Technology (ENT) Department
ENGR 207
Coordinator: Bahman Motlagh
407-384-2153 Fax: 407-384-2157

## Admission Requirements

Must have completed an AS degree from a Community College in Computer Engineering Technology Network Specialization. (67/68 hrs)

## Degree Requirements

- Students should check with their ENT faculty advisor frequently to ensure that they are making proper progress toward the degree.
- A grade of "C" (2.0) or better is required in all prerequisites.


## 1. UCF General Education Program

A. Communication Foundations
(nine hours completed in AS degree program)
B. Cultural and Historical Foundations
(3 hrs taken in AS degree program)
C. Mathematical Foundations
(completed in AS degree program)
D. Social Foundations

6 hrs

| 2. Engineering Technology Core Courses | (25 hrs) |  |
| :--- | :--- | :---: |
| ETI 3651C | Computer Applications | 3 hrs |
| ETI 3671 | Technical Economic Analysis | 2 hrs |
| ETI 3116 | Applied Engnrng Quality Assurance | 3 hrs |
| ETI 4635 | Technology Administration | 3 hrs |
| ENC 3241 | Writing for the Technical Professional | 3 hrs |
| EET 3085C | Electricity \& Electronics | 4 hrs |
| CET 3323C | Digital Technology | 4 hrs |
| CET 2364 | Systems Applications in C | 3 hrs |

## 3. Lower Level Required Courses Taken (40 hrs) in AS degree

4. Required Technical Courses

CET 4427 Applied Database I
CET 3383 Applied Systems Analysis I
CET 4505 Applied Operating Systems I 3 hrs
CET 3752 Intro to Telephony
CET 4483 Intro to Local Area Network 3 hrs
CET 4333 Computer Organization \& Design 3 hrs
CET 4523C Applied Systems Analysis II 3 hrs

## 5. Technical Electives

(6 hrs)
Choose two from the following:
CET 3198C Digital Systems 3 hrs
CET 4138C Digital Programmable Devices 3 hrs

| CET 4931 | Current Topics in Technology | 3 hrs |
| :--- | :--- | :--- |
| CET 4527 | Applied Operating Systems II | 3 hrs |
| CET XXXX | Intro to Wide Area Network | 3 hrs |
| MAP 3401 | Problem Analysis | 3 hrs |

## 6. Departmental Exit Requirements

none

## 7. Foreign Language Requirements

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation: none

## 8. Approved Technical Electives

Students should consult with the ENT Department for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 9. University Minimum Graduation Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award 48 semester hours of upper division credit completed

32 semester hours of regular courses completed at UCF
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted

- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## Total Semester Hours Required:

Related Programs:

## 128 hours

none

## Transfer Notes:

- Students transferring from any Florida public institution with an AA degree or with the general education program (GEP) requirements of that institution met have thereby satisfied UCF GEP requirements.
- Students entering a UCF undergraduate program and having a previously earned baccalaureate degree from an accredited institution have thereby satisfied UCF GEP requirements. (See also the section on the GEP found elsewhere in this catalog.)
- Courses taken from Community Colleges do not substitute for Upper Division Courses.

Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information to the ENT Department for this evaluation.

- ENT Departmental Residency Requirements consist of at least 32 semester hours of regularly-scheduled 3000 or 4000 level courses taken from the UCF ENT Department.


## Tentative Course Schedule for Transferring Students

The tentative course schedule listed below is a guide for those students who plan on completing their upper division engineering technology degree requirements in two years. Many students choose to spread out these requirements over a longer period of
time. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Junior Year

Fall 15 hrs Spring 13 hrs
Humanities 3 CET 3383 Appl Sys Anal I ..... 3
Social Science
3 PSC/PHY XXXX ..... 4
ETI 3116 App Eng Quality Assur3 Hum Elective ..... 3
CET 2364 Systems Apps in C 3 Tech Elective ..... 3
Bio Science ..... 3
Summer ..... 9 hrsTech Elective3
ETI 3651C Computer Appl3

## Senior Year

Fall 13 hrs Spring 14 hrs
CET 4505 Appl Oper Sys I 3 Tech Elective 3

CET 4427 Appl Database I 3 ETI 4635 Tech Admin 3
ETI 4640 Process Plan \& Sched 3 CET 4333 Comp Org \& Design 3

Tech Elective
Tech Elective

4 ETI 3671 Tech Econ Anal 2
3
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INFORMATION TECHNOLOGY
(B.S.)

College of Engineering and Computer Science
School of Electrical Engineering and Computer Science,
CSB 201
E-mail: it@seecs.ucf.edu
Home Page: http://it.seecs.ucf.edu
Undergraduate Coordinator: G. Marin 407-823-2341

## Degree Requirements

- Students must earn at least a "C" (2.0) in each course in 2-5.
- Students should consult with a departmental advisor.
- A Residency Requirement consists of at least 24 semester hours of regularly scheduled 3000-5000 level courses taken from the School of Electrical Engineering and Computer Science at UCF.

12 of the 24 Residency hours must be at the 4000-5000 level.

## 1. UCF General Education Program

A. Communication Foundations

Select ENC 1101, ENC 1102
Prefer SPC 1016
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 2147 Math for Calculus
Select STA 2023, Statistical Methods I
D. Social Foundations

9 hrs

3 hrs
3 hrs

| Select ECO 2013 Principles of Economics I or | 3 hrs |
| :--- | :--- |
| ECO 2023 Principles of Economics II |  |

CDA 4XXX Network Laboratory 3 hrs
COP 4XXX Frontiers of Information Technology 3 hrs
EEL 3801 ( 3 hrs ) and EEL 4851 ( 4 hrs ) can substitute for the combined nine hours associated with COP 3223, 3502, and 3503.

A three credit internship approved by the Information Technology Program Coordinator can substitute for the Frontiers in Information Technology (COP 4XXX) requirement.

## 4. Support Courses

ENC 3241 Technical Report Writing
ENC 4XXX Any 4000-level tech. writing course
(6 hrs)
3 hrs
3 hrs
or CRW 3XXX or any upper division creative writing

## 5. Restricted Electives

( 15 hrs )
15 hours of upper division courses taken outside information technology. At least nine of these hours must be at or above the 4000 level. The remaining six are at the 3000 level or above. These course are in areas of the student's choosing. The only restriction is on the level of the courses, not the departments from which they come. However, students are strongly advised to make this a cohesive set of courses. Many departments have plans whereby students can achieve a certification at 15 credits, and a minor at 18 . No co-operative education or internship hours are allowed.

## 6. School Exit Requirements

- Complete an exit interview with an assigned faculty advisor
- Computer competency met by completion of major


## 7. Electives

(variable)

## 8. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
30 semester hours of regular courses completed at UCF
A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces

- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Computer Science, Computer Engineering, Management Information Systems

## Related Minors and Certificates: Computer Information Technology, Computer Science

## Transfer Notes:

- Grades below "C-" (1.75) do not meet requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.


## INTERNATIONAL BUSINESS TRACKS (B.S.B.A.)

## College of Business Administration

BA 240, 407-823-2184
http://www.bus.ucf.edu

The degree requirements for each international business track are the same as the requirements for the degree in the functional area associated with the track except for the track-specified required courses and restricted electives indicated below.

## ECONOMICS TRACK: International Business

Required Courses*
9 hrs
ECO 3101 Intermediate Price Theory
ECO 3203 Aggregate Economic Conditions Analysis
ECO 4451 Research Methods in Economics

Required International Courses** $\quad 9-15 \mathbf{h r s}$
ACG 4252 International Accounting
ECO 4701 The Global Economy
FIN 4604 International Financial Management
MAN 4600 International Management
MAR 4156 International Marketing

ECS 4231 Japanese Prosperity
ECS $4204 \quad$ Economies of the Pacific Rim
ECS 4003 Comparative Economic Systems
ECO 3703 International Economics
ECS 4013 Economic Development
ECO 3723 International Commercial Policy
ECS 4303 Economics of European Integration
ECS $4210 \quad$ Chinese Economy
ECS 4XXX Mexican Economy

* Required for BSBA-ECO-IB track
** Required international + electives must add up to 18 hours
*** IB 2000 may be used for up to 6 credit hours. Other approved internship or independent studies may be used for up to three credit hours.


## FINANCE TRACK: International Business

## Required Courses*

## 9 hrs

FIN 3303 Financial Markets
FIN 3414 Intermediate Corporate Finance
FIN 3504 Investment Analysis

## Required International Courses**

9-15 hrs
ACG 4252 International Accounting
ECO 4701 The Global Economy
FIN 4604 International Financial Management
MAN 4600 International Management
MAR 4156 International Marketing

FIN 4313 Management of Financial Institutions
FIN 4324 Commercial Bank Management
FIN $4424 \quad$ Advanced Topics in Financial Management
FIN 4453 Financial Models
FIN $4514 \quad$ Portfolio Analysis and Management
FIN 5405 Financial Concepts
REE 4303 Real Estate Investment Analysis
IBS 4TTT International Negotiations and Transactions
IBS 4ZZZ Export and Import Management

* Required for BSBA-FIN-IB track
** Required international + electives must add up to 18 hours
*** IB 2000 may be used for up to six credit hours. Other approved internship or independent studies may be used for up to three credit hours.


## GENERAL BUSINESS TRACK: International Business

## Required International Courses*

ACG 4252 International Accounting
ECO 4701 The Global Economy
FIN 4604 International Financial Management
MAN 4600 International Management
MAR 4156 International Marketing

Electives
IBS 4YYY
IBS 4ZZZ Export and Import Management
IBS 4TTT International Negotiations and Transactions
IBS 4MMM Global Strategic Management

IBS 4LLL International Business and Legal Environment
INR 4035 International Political Economy***
ANT 3422 Peoples of the World ${ }^{* * *}$
Any Foreign Language 3000/4000 level***
Any course from International electives in Economics

* Required international + electives must add up to 27 hours
** IB 2000 may be used for up to six credit hours. Other approved internship or independent studies may be used for up to three credit hours.
*** Students may select no more than one of these electives

MARKETING TRACK: International Business

| Required Courses* | 9 hrs |  |
| :--- | :--- | ---: |
| MAR 3503 | Consumer Behavior |  |
| MAR 3613 | Marketing Analysis and Research |  |
| MAR 4803 | Marketing Management |  |
|  |  |  |
| Required International Courses** |  |  |
| ACG 4252 | International Accounting |  |
| ECO 4701 | The Global Economy |  |
| FIN 4604 | International Financial Management |  |
| MAN 4600 | International Management |  |
| MAR 4156 | International Marketing or |  |
| MAR 4XXX | Strategic Foundations in Global Business |  |

Electives****
MAR 3323 Integrated Marketing Communications
MAR 3391 Professional Selling
MAR 3403 Sales Force Marketing

## MANAGEMENT TRACK: International Business

## Required Courses*

MAN 4240 Organizations: Theory and Behavior
IBS 4MMM Global Strategic Management
MAN 3301 Management of Human Resources

## 9 hrs

## Required International Courses**

9-15 hrs
ACG 4252 International Accounting
ECO 4701 The Global Economy
FIN 4604 International Financial Management
MAN 4600 International Management
MAR 4156 International Marketing

Electives***
MAN 4101 Human Relations in Management
MAN 4350 Training and Development

## 3-9 hrs

```
MAN 4310 Personnel Management Issues
MAN 4330 Compensation Administration
MAN 4129 Managerial Skills in Organizations
MAN 4320 Human Resources Recruitment and Selection
MAN 4401 Human Relations Management
* Required for BSBA-MAN-IB track
** Required international + electives must add up to }18\mathrm{ hours
*** IB 2000 may be used for up to six credit hours. Other approved internship or independent studies
may be used for up to three credit hours.
```


## INTERPERSONAL COMMUNICATION (B.A.)

College of Arts and Sciences<br>Nicholson School of Communication, COM 258, 407-823- 2852,<br>http://www.cas.ucf.edu/communication

E-mail: communication@ucf.edu
K. Phillip Taylor

## Admission Requirements

Application to the Nicholson School of Communication needed. Applying, student must complete STA 2023 with a "C" (2.0) or better.

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
Students need to apply to the school office to enter this major

- Co-op or internship credit can not be used in this major

Students should consult with a departmental advisor
School Residency Requirement consists of at least 24 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF School of Communication

- Students electing both a major and minor in the School must take the minor courses in excess of the 120 hours required for graduation
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

## 2. Common Program Prerequisites

SPC 1600C Fund Oral Communication

## GEP

## 3. Specific Program Prerequisites

STA 2023 Statistical Methods I GEP
Select one of the following
CGS 2100C Computer Fundamentals for Business
CGS 2585C Desktop/Internet Publishing
CGS 3175 Internet Applications
PUR 4110C Public Relations Publications

## 4. Core requirements

COM 3011C Communication \& Human Relations 3 hrs
COM 3311 Communication Research Methods 3 hrs
COM 3701 Humor in Communication

COM 4014 Gender Issues in Communication
COM 4461 Intercultural Communication
3 hrs

| SPC 3301 | Interpersonal Comm | 3 hrs |
| :--- | :--- | :---: |
| SPC 4331 | Nonverbal Communication | 3 hrs |
| SPC 4350 | Studies in Listening | 3 hrs |
| SPC 4426 | Group Dynamics | 3 hrs |
| SPC 4540 | Attitudes and Communication | 3 hrs |

## 5. Upper Division Restricted Electives <br> (9 hrs)

A minimum of nine upper division credit hours selected from Social Science courses in Anthropology, Criminal Justice, Legal Studies, Political Science, Psychology, Public Administration, and Sociology.

## 6. School Exit Requirements

Achieve a "C" (2.0) or better grade in all required UCF Communication courses

- To avoid delaying graduation, you must request a review of requirements before registering for your last term

Computer Competency met by a Computer Science course or by departmental assessment

## 7. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement
Graduation: One year or equivalent proficiency exam.

## 8. Electives

(variable)
Select primarily from upper level courses. May be outside of the School of Communication.

## 9. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Organizational Communication

Related Minors: Organizational Communication

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet school requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.


## Admission Requirements

- Students should apply to become Journalism majors only after completing all requirements for admission. Deadlines are:

October 1, 2001 for Spring 2002
February 1, 2002 for Summer 2002
July 1, 2002 for Fall 2002

- Attain an overall minimum 2.25 GPA based on a minimum of 30 credit hours of college work.

Note: meeting the minimum GPA does not guarantee admission since students are admitted on a space available basis. The GPA cut-off for the previous acceptance cycle was 2.5 .

- Admission is not strictly based on GPA. Preference is given to students with a portfolio of work demonstrating their commitment to the profession.
- Pass a UCF grammar proficiency exam.

Pass a Keyboard Proficiency Test ( 25 wpm ) or better within three attempts, or complete a college level keyboard/typing course with a grade of "C" (2.0) or better.

Receive a positive evaluation of other factors specified by the School.

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.

- The Journalism faculty strongly recommends that majors work for a student newspaper. In addition, majors may obtain an off-campus internship with a commercial weekly or daily newspaper or with a magazine. To enroll for credit, students must have a 2.5 GPA in their required major courses. Students with less than a 2.5 GPA will not be given academic internship credit. A maximum of 3 internship credit hours may be earned within the 120 required for graduation.
- A portfolio of representative work must be submitted to, and approved by, a faculty committee at least one semester before graduation. At least $75 \%$ of the work must be produced while at UCF.
- Co-op or internship credit can not be used in this major
- Students should consult with a school advisor.
- School Residency Requirement consists of at least 24 semester hours including JOU 2100 and regularly scheduled 3000-4000 level courses taken from the UCF School of Communication.
- Students electing both a major and minor in the School must take the minor courses in excess of the 120 hours required for graduation.
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours.


## 1. UCF General Education Program

(36 hrs)
A. Communication Foundations

Select ENC 1101 \& 1102 Composition
Select SPC 1600C Fund Oral Communication
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Select CGS 1060C Intro to Computer Sci or STA 2014C Principles of Statistics
D. Social Foundations
E. Science Foundations

6 hrs
6 hrs

| 3. Core requirements | ( $\mathbf{3 0} \mathbf{~ h r s )}$ |  |
| :--- | :--- | :---: |
| JOU 3004 | History of American Journalism | 3 hrs |
| JOU 2100* | News Reporting | 3 hrs |
| JOU 3101* | Advanced News Reporting | 3 hrs |
| JOU 3200* | Editing I | 3 hrs |
| JOU 3202* | Editing II | 3 hrs |
| JOU 4181* | Public Affairs Reporting | 3 hrs |
| JOU 4300* | Feature Writing | 3 hrs |
| MMC 4200 | Mass Communication Law | 3 hrs |
| MMC 4602 | Contemporary Media Issues | 3 hrs |
| PGY 3610C | Photojournalism I | 3 hrs |

*Prerequisite: Grammar Proficiency Examination and Keyboard Proficiency Test required. Some courses may also require a minimum grade of " C " (2.0) in prerequisite courses.

## 4. Upper Division Restricted Electives

JOU/PGY
Elective

3 hrs

## 5. Required Minor:

 ( 15 hrs minimum)Journalism majors must complete a minor in an academic area outside of the School of Communication. When no official minor is offered, students may complete a 15-credit-hour area of concentration approved by the Faculty.

## 6. School Exit Requirements

- Acceptance of portfolio by faculty
- To avoid delaying graduation, you must request a review of requirements before registering for your last term
- Achieve an overall "C" GPA (2.0) in required UCF Journalism courses. This GPA does not include Restricted Electives in the major or other electives.

Computer competency met by program admission test

## 7. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement
Graduation: One year or equivalent proficiency exam

## 8. Electives

(variable)
Select primarily from upper level courses, with school advisor's approval. May be outside of the school.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Technical Writing, Creative Writing

Related Minors: Creative Writing, History, Literature, Linguistics, Magazine Journalism (not available to Journalism majors), Political Science, Sociology, Technical Writing, Writing

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet school requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.
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LEGAL STUDIES (B.A., B.S.)

College of Health and Public Affairs
HPA 311, 407-823-2603
Undergraduate Program Coordinator: David Slaughter
E-mail: dslaught @mail.ucf.edu
Web Address: http://www.cohpa.ucf.edu/crim.jus/

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog

Students should complete the General Education Program before transferring within the Florida Public University/Community College System

- Students should consult with a departmental advisor
- The courses designated in section 1 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours
- 33 hours of PLA coursework must be taken at UCF
- 2.0 in all PLA work at UCF and overall


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
C. Mathematical Foundations

Select MGF 1106

9 hrs 6 hrs
D. Social Foundations
6 hrs
E. Science Foundations
6 hrs

## 2. Common Program Prerequisites

none

## 3. Core Requirements

## ( 18 hrs )

| PLA 3013 | Law and the Legal System | 3 hrs |
| :--- | :--- | :---: |
| PLA 3104 | Legal Research | 3 hrs |
| PLA 3155 | Legal Writing | 3 hrs |
| PLA 3201 | Civil Practice and Procedure | 3 hrs |
| PLA 3610 | Property and Real Estate Law | 3 hrs |
| PLA 4935 | Capstone: Legal Issues | 3 hrs |

## 4. Upper Division Restricted Electives

(24 hrs)
24 additional hours of Legal Studies coursework selected in consultation with an advisor

## 5. Supporting Courses

(9 hrs)
Nine semester hours of supporting courses chosen with the approval of the student's advisor. These courses may be selected from any department or program so long as they are relevant to legal studies.

## 6. Specializations

Students may earn a specialization within the general program of study. The specializations do not substitute for the general legal studies degree requirement; they are earned within the general program by selecting particular courses to satisfy the legal studies restricted electives and supporting courses requirements. Students are not required to declare a specialization. The following specializations are offered:

Law and Society
Litigation and Advocacy

## Public Law

Sports and Entertainment Law
Criminal Law and Individual Liberties
Estates and Property Law
Comparative Law
Commercial and Transactional Law
A student may earn a maximum of two specializations. Specific course requirements are available at the department office or from the student's advisor.

## 7. Departmental Exit Requirements

(120 hrs)
Students must take a minimum of 33 hours of PLA courses at UCF. The total semester hours required is 120 .

## 8. Electives

(variable)

## 9. Foreign Language Requirements

## (0-8 hrs)

Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation: Students pursuing the B.A. degree must demonstrate proficiency in a foreign language equivalent to one year. Students pursuing the B.S. degree must satisfy six credit hours from the approved list of courses.

## 10. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Related Programs: Business Administration, Criminal Justice, History, Political Science, Public Administration, Sociology

Related Minors: Business Administration, Criminal Justice, Political Science, Public Administration, Sociology

## Transfer Note:

Courses taken at community colleges do not substitute for Upper Division courses.

## Honors

Honors Option Requires:

- Completion of a three credit directed readings course
- Completion of a three credit thesis course
- Open to students with a minimum 3.5 GPA in Legal Studies
- Cumulative UCF 3.2 GPA
- Completion of 60 semester hours of college credit, including 12 graded upper division hours at UCF


## Minor

The Legal Studies Minor consists of 21 or more semester hours. Required courses: PLA 3013 plus a minimum of 15 semester hours of legal studies courses and three semester hours of law-related courses selected with the aid of an advisor.

## Tentative Course Schedule for Entering Freshmen

## Freshman Year*




LIBERAL STUDIES (B.A., B.S.)

## College of Arts and Sciences

Liberal Studies Program, CNH 201
http://www.cas.ucf.edu/liberal_studies
E-mail: ls@mail.ucf.edu
TBA, 407-823-0144

Liberal Studies is a university-wide program leading to either the Bachelor of Arts or the Bachelor of Science in Liberal Studies, depending on the majority of course areas selected.

The program is administered through the College of Arts and Sciences and is designed for academic flexibility. It recognizes that there are many combinations of courses which meet the needs of individual students.

## Admission Requirements

## none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Students must have declared a Liberal Studies major at least one semester before graduation.

Co-op or internship credit can not be used in this major
Students must earn at least a "C" (2.0) in each required course

- Students should consult with a departmental advisor
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics (may substitute a higher level math)

Select STA 1060C Statistics Using Excel or STA 2014C Principles of Statistics
(may substitute a higher level computer science or statistics course)
D. Social Foundations
E. Science Foundations 6 hrs 6 hrs

## 2. Common Program Prerequisites

## 3. Restricted Electives

- Students must complete two different subject area concentrations from those specified below
- Students must take a minimum of 18 hours of approved courses in each selected subject area (excluding GEP courses).
- Students are required to take a minimum of 18 UCF hours, as well as 18 upper division hours, in the two areas combined

Arts
Art, Music, or Theatre

## Behavioral and Social Sciences

Anthropology, Psychology, Sociology, Political Science, Economics, Social Work

## Biological Sciences

## Business Administration

Communication

## Computer Science

## Education

## Engineering

## Health

## Humanities

History, Philosophy, Humanities, Judaic Studies, or Religious studies

## Languages

## Letters

English, Foreign Literature, or Comparative Literature

## Mathematical Sciences

Mathematics and Statistics

## Physical Sciences

Astronomy, Chemistry, Forensic Science, Physical Geography, Geology, Physics, or Meteorology,

## Public Affairs

## 5. Required Minor

Student must complete a minor from those offered at UCF.

## 6. Program Exit Requirements

- A minimum GPA of 2.0 is required for all courses taken in each of the subject areas and minor
- Computer Competency met by appropriate courses or departmental exam


## 7. Foreign Language Requirements

Admission-BA: Met by graduation requirement
Admission-BS: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

Graduation-BA: One year or equivalent proficiency exam.
Graduation-BS: One semester or equivalent proficiency exam, or one course with a multicultural dimension

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Computer Information Technology, Liberal Arts Track

Related Minors: All minors

## Transfer Notes:

Grades below "C" (2.0) from other institutions do not meet departmental requirements.
Courses taken at community colleges do not substitute for Upper Division courses.

- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

LIBERAL STUDIES - COMPUTER INFORMATION TECHNOLOGY TRACK (B.S.)

## College of Arts and Sciences

Liberal Studies Program, CNH 207A
http://www.cas.ucf.edu/liberal_studies
E-mail: ls@mail.ucf.edu
TBA, 407-823-0144
College of Engineering and Computer Science
School of Computer Science, CS 201
computerscience@ucf.edu
R. Dutton, 407-823-2341

The industry is facing a severe shortage of qualified people to work in the broad area of Information Technology (IT). Computer Science is only a small fraction of this IT umbrella; it includes computer application development, system administration, network administration, database administration, etc.

This LS-CIT track fills the gap between the fully accredited degree program in Computer Science which emphasizes the scientific aspects of computing, and the needs of the IT industry for people with skills in broader areas of information technology. By housing this track within Liberal Studies, students can accentuate those areas of computer information and application, while de-emphasizing the mathematical and physical science components of Computer Science.

The program is administered through the College of Arts and Sciences and is designed for academic flexibility. It recognizes that there are many combinations of courses which meet the needs of individual students.

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Co-op or internship credit can not be used in this major
- Students must earn at least a "C" (2.0) in each required course
- Students should consult with departmental advisors within both the Liberal Studies program and Computer Science.
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations 9 hrs
B. Cultural and Historical Foundations
C. Mathematical Foundations
D. Social Foundations
E. Science Foundations
(36 hrs)

9 hrs
6 hrs
6 hrs
6 hrs

## 2. Common Program Prerequisites

none

## 3. Required Minor in CIT

 (36 hrs)- Students must complete a minor in Computer Information Technology (CIT). See the CIT minor for requirements.


## 4. Restricted Electives

## ( 18 hrs )

- Students must complete a minimum of 18 hours of approved courses in one subject area (excluding GEP courses).
- Students are strongly encouraged to take upper level courses in each area


## Arts

Art, Music, or Theatre

## Behavioral and Social Sciences

Anthropology, Psychology, Sociology, Political Science, Economics, Social Work

## Biological Sciences

## Business Administration

Communication

## Education

Engineering

## Health

## Humanities

History, Philosophy, Humanities, Judaic Studies, Religious studies

## Languages

## Letters

English, Foreign Literature, Comparative Literature
Mathematical Sciences
Mathematics, Statistics

## Physical Sciences

Astronomy, Chemistry, Forensic Science, Physical Geography, Geology, Physics, Meteorology

## Public Affairs

## 5. Program Exit Requirements

- A minimum GPA of 2.0 is required for all courses taken in each of the subject areas and the CIT minor
- Computer Competency met by CIT minor.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

Graduation: One semester or equivalent proficiency exam, or one course with a multicultural dimension

## 7. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed

- 30 semester hours in regular courses completed at UCF
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: Computer Science, Liberal Arts Track, Digital Media

Related Minors: All minors

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

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LIBERAL STUDIES - LIBERAL ARTS TRACK (B.A.)

## College of Arts and Sciences

Liberal Studies Program, CNH 201
http://www.cas.ucf.edu/liberal_studies
E-mail: ls@mail.ucf.edu
TBA, 407-823-0144

The Liberal Arts Track is an honors-linked Bachelor of Arts degree program available to students seeking an individualized, inter-disciplinary, non-traditional major within the College of Arts and Sciences.

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Students must earn at least a "C" (2.0) in each required course
- Co-op or internship credit can not be used in this major
- Students should consult with a departmental advisor
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations

9 hrs
C. Mathematical Foundations ..... 6 hrs
Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Select CGS 1060C Intro to Computer Sci or
STA 2014C Principles of Statistics or
STA 1060C Statistics Using Excel
(may substitute a higher level computer
science or statistics course)
D. Social Foundations ..... 6 hrs
E. Science Foundations ..... 6 hrs
2. Common Program Prerequisites ..... None
3. Core Requirementsan approved course in ethicsan approved course in critical thinking
4. Restricted Electives(42 hrs)
Select one
a. complete a minor from those offered within
UCF's College of Arts and Sciences ..... 18 hrs
b. complete an approved individualized minor ..... 24 hrs
5. Program Exit Requirements ..... IDS 4970 Thesis ..... 3 hrs

- Students must take at least one Honors Seminar to meet the requirements of the Core or Restricted Electives (sections 3 and 4 above)

Maintain a minimum GPA of 3.2 in all upper division courses

- Computer Competency met by IDS 4970


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam.

## 7. Electives

## (variable)

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: General Studies Track

Related Minors: All minors

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.
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## LIBERAL STUDIES 3+2 PROGRAM

(B.A./B.S. AND M.A.)

College of Arts and Sciences
http://www.cas.ucf.edu/mls/3+2Program/
Liberal Studies Undergraduate Program, CNH 201
Director: TBA, 407-823-0144
E-mail: 1s@mail.ucf.edu
Liberal Studies Graduate Program, CNH 207B
Director: Elliot Vittes, Ph.D. 407-823-2745
E-mail: mls@ mail.ucf.edu

The 3+2 Program allows outstanding Liberal Studies students to earn a B.A. or B.S. degree and a M.A degree in as few as five years. Students earn nine hours of graduate credit toward the M.A. while still an undergraduate, and then an additional twenty-four credits after earning the B.A. or B.S. degree.

Students majoring in any of the Liberal Studies tracks may apply for the program. This unique course of study requires close advising with program advisors, and approval by the M.A. in Liberal Studies program.

## Admission Requirements

Acceptance to the university does not constitute admission to the accelerated $3+2$ program. An additional application to the program must be submitted and the student accepted. Contact the Liberal Studies program or visit our website for application materials. All applicants must meet the following criteria:

- A GPA of 3.25 or higher at UCF in their last 30 credit hours before applying in the second semester of their junior year.
- At least 75 credit hours earned by time of application.
- A GRE score of 1050 or above (usually taken in the second semester of the junior year).


## Undergraduate Degree Requirements

Undergraduate degree requirements vary by track, and each track's requirements must be checked carefully in the appropriate Liberal Studies degree section.

- Students who change degree programs and select this major must adopt the most current catalog.
- Students must have declared a Liberal Studies major at least one semester before graduation.
- Students must earn at least a "C" (2.0) in each required course.
- Students must consult with a departmental advisor.
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours.


## Graduate Degree Requirements

The $3+2$ Program involves a minimum of 144 credits for completion of both the B.A./B.S. and M.A. degrees.

- The graduate requirements listed in the Graduate Catalog take precedence over those listed below.
- Students take nine graduate credit hours during their senior year which substitute for 3000- or 4000 -level courses as part of the program requirements.
- Students pay graduate tuition and fees for the nine graduate credit hours.

All requirements of the undergraduate and graduate degree programs must be fulfilled.
Students should consult with the undergraduate and graduate advisors.
Approval for course substitutions and for graduate courses must be given by the undergraduate and graduate advisors.

- The B.A./B.S. will be awarded after completing all the requirements for that degree in the undergraduate program.

1. UCF General Education Program
(36 hrs)
(See Liberal Studies sections of the catalog for track-specific GEP requirements)

## 3. Track Requirements

Students complete the requirements of the program based on the track option in Liberal Arts, Liberal Studies, or Computer Information Technology. See the description in the Liberal Studies sections for full information about each track.

## Liberal Studies track

 (54 hrs)Minor
Two liberal studies areas which include
Area 1
Area 2

18 hrs
at least 18 upper division hours

## Computer Information Technology (CIT) track

 18 hrs18 hrs

CIT Minor
One liberal studies area

36 hrs
18 hrs

Liberal Arts track
An approved course in ethics
An approved course in critical thinking
Minor
Individual minor
IDS 4970 Thesis

## 4. Program Exit Requirements

## Liberal Studies track, and CIT track

- A minimum GPA of 2.0 is required for all courses taken in each of the subject areas and minor.
- Computer Competency met by appropriate courses or departmental exam.


## Liberal Arts track

- Maintain a minimum GPA of 3.5 in all Liberal Arts Track courses

Maintain a minimum GPA of 3.2 in all upper division courses.
Computer Competency is met by IDS 4970.

## 5. Foreign Language Requirements

Admission-BA: Met by graduation requirement.
Admission-BS: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

Graduation-BA: One year or equivalent proficiency exam.
Graduation-BS: One semester or equivalent proficiency exam, or one course with a multicultural dimension.

## 6. Electives

## (variable)

Select primarily from upper level courses, with departmental advisor's approval.

## 7. University Minimum Exit Requirements - BA/BS

### 2.0 UCF GPA.

60 semester hours earned after CLEP awarded.
48 semester hours of upper division credit completed.
30 semester hours in regular courses completed at UCF.

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted.
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable).


## Total Semester Hours Required - BA/BS <br> 120 hours

(including nine graduate credits when completing the $3+2$ program).

## Overall Liberal Studies MA Requirements <br> (33 hrs)*

* Nine hours of graduate work are earned in the senior year, in consultation with the M.A. in Liberal Studies program director.
(Please see the Graduate Catalog for specific requirements)

| IDS 6308 | Ways of Knowing | 3 hrs |
| :--- | :--- | :---: |
| IDS 6669 | Interdisc Approaches to Research | 3 hrs |
| IDS 6351 | Critical Thinking and Writing | 3 hrs |

## Concentration ( $\mathbf{1 8} \mathbf{~ h r s ) ~}$

More than 40 concentrations and certificate affiliation programs are part of the M.A. in Liberal Studies degree. See the graduate catalog for additional information.

## Options

## Thesis Option

Directed Readings
Thesis
Thesis defense
Non-thesis Option
Two approved graduate courses
Comprehensive exam
Total Hours Required - BA/BS + MA

## Transfer Notes:

Grades below "C" (2.0) from other institutions do not meet departmental requirements.

- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

MANAGEMENT (B.S.B.A.)

## College of Business Administration

BA 240, 407-823-2184
http://www.bus.ucf.edu

## Admission Requirements

- Completion of the UCF General Education program or an AA degree from a Florida Public Community College
- See Common Program Prerequisites


## Degree Requirements

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 1105 College Algebra
Select CGS 2100C Computer Fundamentals for Bus
D. Social Foundations

Select ECO 2013 Principles of Economics I or
ECO 2023 Principles of Economics II
Select one: PSY 2013, SYG 2000, ANT 2000
E. Science Foundation
(36 hrs)
9 hrs
9 hrs

3 hrs
3 hrs

3 hrs

3 hrs
6 hrs

## 2. Common Program Prerequisites

Must be completed with a "C" (2.0) or better.
ACG 2021 Principles of Financial Accounting
ACG 2071 Principles of Managerial Accounting
ECO 2013 Principles of Macroeconomics
ECO 2023 Principles of Microeconomics
*ECO 3401 Quantitative Business Tools I
CGS 2100C Computer Fundamentals for Business

* At UCF, students who have completed MAC2233 and STA2023 will be waived from ECO3401. Students who have not completed both classes with a "C" (2.0) or better must take ECO3401.


## 3. Required for All Business Majors

(30 hrs)

## Common Body of Knowledge

First Semester in the College of Business Administration:
GEB 3031 Cornerstone 6 hrs
First or subsequent semesters depending on major:
BUL 3130 Legal \& Ethical Environments of
Business 3 hrs
ECO 3411 Quantitative Business Tools II 3 hrs
FIN 3403 Business Finance 3 hrs
MAN 3025 Management of Organizations 3 hrs
ISM 3530 Essentials of Management 3 hrs
Information Systems
MAR 3023 Marketing 3 hrs

Last Semester:
GEB 4361 Business in the International
Environment 3 hrs

## 4. Special college and/or department requirements:

Students who change degree programs and select this major must adopt the most current catalog.
Only grades of "C" (2.0) or higher transfer into the program and students must have a "C" (2.0) or better in each common program prerequisites class.

- Students wanting to major in Management must apply for admission to the major

Students not in attendance at the first meeting of any College of Business course may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.

- Students must take 60 semester hours in courses outside the College of Business.
- A transfer student to this program must take a minimum of 12 semester hours in Management at UCF.

Students must earn at least a 2.0 GPA in the major and COB.

- Students majoring in Management must earn a grade of "C" (2.0) or better in MAN 3025L, MAN 4720, and each course applied toward the major.


## 5. Majors

Students may choose from two majors. Within the Management majors, students can concentrate in two areas of study. Courses for each are outlined below:

## 1. Human Resource Management Major

Required Courses
MAN 3301 Human Resource Management
MAN 4240 Organizational Theory and Behavior
BUL 4540 Employment Law
Elective Courses
MAN 4101 Human Relations in Management
MAN 4310 Personnel Issues
MAN 4320 Recruitment and Selection
(24 hrs)
(9 hrs)
3 hrs
3 hrs
3 hrs (15 hrs)

3 hrs
3 hrs
3 hrs

| MAN 4330 | Compensation Administration | 3 hrs |
| :--- | :--- | :---: |
| MAN 4350 | Training and Development | 3 hrs |
| MAN 4401 | Labor Relations Management | 3 hrs |
| MAN 4941 | Internship | 3 hrs |
| 2. General Management Major | $(\mathbf{2 4} \mathbf{~ h r s})$ |  |
| Required Courses | $(15 \mathrm{hrs})$ |  |
| ISM 3530 | Quality \& Productivity Management | 3 hrs |
| MAN 4101 | Human Relations in Management | 3 hrs |
| MAN 4240 | Organizational Theory \& Behavior | 3 hrs |
| MAN 4600 | International Management | 3 hrs |
| MAN 4701 | Business Ethics and Society | 3 hrs |
| Elective Courses (take three additional MAN courses) $(9 \mathrm{hrs})$ |  |  |
| MAN Elective | 3 hrs |  |
| MAN Elective | 3 hrs |  |
| MAN Elective | 3 hrs |  |

## 6. Foreign Language Requirements (0-8 hrs)

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 7. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
30 semester hours of coursework completed in residency (last 30 hours) at UCF
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Military credit permitted

Completion of the General Education Program, the Gordon Rule, the CLAST, and nine semester

## 8. Electives

***Total Semester Hours Required

## Community/Junior College Transfer Notes

- Common Program Prerequisites for the State University System for College of Business Administration programs include Financial Accounting, Managerial Accounting, Macroeconomics, Microeconomics, Calculus, Statistics, and a relevant computer class. At UCF Business, students who have completed the calculus and statistics class will be waived from Business Quantitative Tools I. Students who have completed either the calculus or the statistics, but not both, must take Quantitative Tools I.
- Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in the UCF Business program. Only grades of "C" (2.0) or higher transfer into the program and students must have a "C" (2.0) or better in each common program prerequisites class.

ACG X001 and X011 will substitute for ACG 2021 at UCF

- Florida Public Community College students are advised to complete the Associate of Arts degree, to include the general education requirements, the common program prerequisites for the SUS system, and college algebra.
- 3000 \& 4000 level courses should not be taken at a community/junior college in the areas of Management, Marketing, Real Estate, or Finance. These are third and fourth year (junior, senior) course areas and cannot be satisfied with freshman, sophomore level courses.
- A minimum of 12 semester hours must be completed at UCF within each individual major.
- Orientation and advising are two of the most valuable tools that a student can make use of when transferring to UCF. Be sure that you take advantage of both.


## FOUR YEAR PLAN OF STUDY - ALL MANAGEMENT MAJORS

## Freshman

Fall
15 hrs
Spring
15 hrs
ENC 1101*
3
ENC 1102*

| Cult-Hist I* | 3 | Cult-Hist II* | 3 |
| :--- | :---: | :--- | :--- |
| SPC 1600C | 3 | Art/Music/Lit | 3 |
| $* * *$ Elective | 3 | MAC 1105* | 3 |
| $* * *$ Elective | 3 | CGS 2100C* | 3 |

Must complete nine hours in a summer semester

## Sophomore

| Fall | 15 hrs | Spring | 15 hrs |
| :---: | :---: | :---: | :---: |
| ECO 2013* | 3 | ECO 2023* | 3 |
| ACG 2021* | 3 | ACG 2071* | 3 |
| Science | 3 | Science | 3 |
| Psy/Soc/Ant | 3 | ***Elective | 3 |
| ***Elective | 3 | ECO 3401* | 3 |
| * "C" (2.0) or better grade required in each class |  |  |  |
| Student should | to major | one of the two | study below |

HUMAN RESOURCE MANAGEMENT MAJOR

Junior

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | :---: | :--- | :---: |
| GEB 3031 | 6 | MAN 4240 | 3 |
| $* * *$ Elective | 3 | MAN 3301 | 3 |
| MAR 3023 | 3 | ECO 3411 | 3 |
| MAN 3025 | 3 | FIN 3403 | 3 |
| BUL 3130 | 3 |  |  |

Senior
Fall
15 hrs Spring
15 hrs

| $* * *$ Elective | 3 | MAN 4720 | 3 |
| :--- | :---: | :---: | :---: |
| ISM 3530 | 3 | MAN 4330 | 3 |
| MAN 4401 | 3 | MAN 4350 | 3 |
| MAN 4320 | 3 | MAN 4310 | 3 |
| BUL 4540 | 3 | GEB 4361 | 3 |

***General electives as required to reach 120 semester hours to include at least 60 semester hours outside the College of Business Administration. Economics courses in the Common Program Prerequisites and the Common Body of Knowledge count toward the 60 hours outside Business Administration.

## GENERAL MANAGEMENT MAJOR

Junior
Fall
GEB 3031
***Elective
ISM 3530
MAN 3025
BUL 3130

## Senior

***Elective

MAN 4240
MAN 4701
~MAN Elective
~MAN Elective

15 hrs Spring
6 ISM 3011
3 MAR 3023
3 ECO 3411
3 FIN 3403
3

15 hrs Spring
3 MAN 4720
3 MAN 4600
3 MAN 4101
$3 \sim$ MAN Elective
3 GEB 4361

15 hrs
3
3
3
3

## 15 hrs

$$
3
$$

3
3
3
3
~ Three MAN Electives to be selected by student
***General electives as required to reach 120 semester hours to include at least 60 semester hours outside the College of Business Administration. Economics courses in the Common Program

Prerequisites and the Common Body of Knowledge count toward the 60 hours outside Business Administration.

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Orlando, Florida
(407) 823-2000

MANAGEMENT INFORMATION SYSTEMS (B.S.B.A.)

College of Business Administration
BA 240, 407-823-2184
http://www.bus.ucf.edu

## Admission Requirements

- Completion of the UCF General Education program or an AA degree from a Florida Public Community College
- See Common Program Prerequisites


## Degree Requirements

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 1105 College Algebra
Select CGS 2100C Computer Fundamentals for Bus 3 hrs
D. Social Foundations

Select ECO 2013 Principles of Economics I or
ECO 2023 Principles of Economics II
Select one: PSY 2013, SYG 2000, ANT 2000
E. Science Foundation
(36 hrs)
9 hrs
9 hrs

3 hrs

3 hrs

3 hrs
6 hrs

## 2. Common Program Prerequisites

Must be completed with a "C" (2.0) of better.
ACG 2021 Principles of Financial Accounting 3 hrs

ACG 2071 Principles of Managerial Accounting 3 hrs
ECO 2013 Principles of Macroeconomics GEP
ECO 2023 Principles of Microeconomics 3 hrs
CGS 2100C Computer Fundamentals for Business GEP
*ECO 3401 Quantitative Business Tools I 3 hrs

* At UCF, students who have completed MAC 2233 and STA 2023 will be waived from ECO 3401.

Students who have not completed both classes with a "C" (2.0) or better must take ECO 3401.

## 3. Required for All Business Majors

(30 hrs)

## Common Body of Knowledge

First Semester in the College of Business Administration:
GEB 3031 Cornerstone 6 hrs
First or subsequent semesters depending on major:
BUL 3130 Legal \& Ethical Environments of
Business 3 hrs
ECO 3411 Quantitative Business Tools II 3 hrs
FIN 3403 Business Finance 3 hrs
MAN 3025 Management of Organizations 3 hrs
MAR 3023 Marketing 3 hrs
ISM 3011 Essentials of Management Info Sys 3 hrs
Last Semester:
GEB 4361 Business in the International
Environment 3 hrs
MAN 4720 Strategic Management 3 hrs

## 4. Special college and/or department requirements:

Students must complete 60 semester hours in courses outside the College of Business

Students who change degree programs and select this major must adopt the most current catalog.

- Students desiring to major in Management Information Systems must apply for admission to the major.
- Students not in attendance at the first meeting of any College of Business course may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.
- Final exams will be given during Exam Week.

A transfer student to this program must take a minimum of 12 semester hours in Management Information Systems at UCF.

- All College of Business Administration Common Body of Knowledge courses and courses required for the major (including electives) must be completed with a grade of " C " (2.0) or better in order to graduate.
- All College of Business Administration students are expected to have access to late model computers and the software needed to complete class assignments. This requirement is especially important for MIS majors. Contact a department advisor for the current expectations.
- Students are cautioned that MIS Department faculty advisors are the only authoritative source of advising on the requirements for the major. Students are further cautioned to study the course prerequisite structure and the Four Year Plan of Study later in this section when planning their schedules. Most MIS course prerequisites can not be waived.

Lower division courses may not be taken for upper division credit in the major.
Students must earn at least a 2.0 GPA in the major and COB.
Only grades of "C" (2.0) or higher transfer into the program and students must have a " C " (2.0) or better in each common program prerequisite class.

## 5. Required Courses

ISM 3005 MIS Techniques 3 hrs
ISM 4113 Information Systems Analysis
\& Design
3 hrs
ISM 4130 Information Systems Implementation 3 hrs
ISM 4212 Database Management Systems 3 hrs
ISM 4220 Distributed Information Systems 3 hrs
ISM 4300 Information Tech. Management 3 hrs

## Plus two of the following:

Any 3000 or 4000 level ISM prefix course.
Any 3000 or 4000 level Computer Science prefix course (CDS, CGS, COP, COT).
MAN 4240 Organization: Theory \& Behavior 3 hrs
May substitute the following with appropriate department approval:
ACG 4401 Accounting Information Systems
FIN 4453
Financial Models

## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation: None

## 7. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
30 semester hours of coursework completed in residency (last 30 hours) at UCF
A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Military credit permitted

- Completion of the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## 8. Electives

(variable)
***Total Semester Hours Required
120 hours

## Community/Junior College Transfer Notes

Common Program Prerequisites for the State University System for College of Business Administration programs include

Financial Accounting, Managerial Accounting, Macroeconomics, Microeconomics, Calculus, Statistics, and a relevant computer class. At UCF Business, students who have completed the calculus and statistics class will be waived from Business Quantitative Tools I. Students who have completed either the calculus or the statistics, but not both, must take Quantitative Tools I.

- Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in the UCF Business program. Only grades of "C" (2.0) or higher transfer into the program and students must have a " C " (2.0) or better in each common program prerequisites class.
- ACG X001 and X011 will substitute for ACG 2021 at UCF.

Florida Public Community College students are advised to complete the Associate of Arts degree, to include the general education requirements, the common program prerequisites for the SUS system, and college algebra.

Professional courses should not be taken at a community/junior college. This includes the areas of MIS, Management, Marketing, Real Estate, or Finance. These professional areas are third and fourth year (junior, senior) course areas and cannot be satisfied with freshman, sophomore level courses.

A minimum of 12 semester hours must be completed at UCF within each individual major.
Orientation and advising are two of the most valuable tools that a student can make use of when transferring to UCF. Be sure that you take advantage of both.

## FOUR YEAR PLAN OF STUDY - ALL MANAGEMENT INFORMATION SYSTEMS MAJORS

## Freshman

Fall
ENC 1101*
Cult-Hist I*
SPC 1600C
***Elective
***Elective

15 hrs
Spring

3

3
3 Art/Music/Lit
MAC 1105*
CGS 2100C*

15 hrs
3

3
3
3
3

Must complete nine hours in a summer semester

## Sophomore

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | ---: | :--- | :---: |
| ECO 2013* | 3 | ECO 2023* | 3 |
| ACG 2021* | 3 | ACG 2071* | 3 |
| Science | 3 | Science | 3 |
| Psy/Soc/Ant | 3 | $* * *$ Elective | 3 |
| $* * *$ Elective | 3 | ECO 3401* | 3 |

* "C" (2.0) or better grade required in each class

Junior
Fall
GEB 30
ISM 30
ISM 30
MAN 30
ECO 3
Senior

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | :---: | :---: | :---: |
| ISM Elective | 3 | MAN 4720 | 3 |
| FIN 3403 | 3 | ISM 4300 | 3 |
| ISM Elective | 3 | ISM 4130 | 3 |
| BUL 3130 | 3 | ISM Elective | 3 |
| ISM 4113 | 3 | GEB 4361 | 3 |

***General electives as required to reach 120 semester hours to include at least 60 semester hours outside the College of Business Administration. Economics courses in the Common Program Prerequisites and the Common Body of Knowledge count toward the 60 hours outside Business Administration.

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MARKETING (B.S.B.A.)

College of Business Administration
BA 240, 407-823-2184
http://www.bus.ucf.edu

## Admission Requirements

- Completion of the UCF General Education program or an AA degree from a Florida Public Community College
- See Common Program Prerequisites


## Degree Requirements

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 1105 College Algebra
Select CGS 2100C Computer Fundamentals for Bus
D. Social Foundations

Select ECO 2013 Principles of Economics I or
ECO 2023 Principles of Economics II
Select one: PSY 2013, SYG 2000, ANT 2000
E. Science Foundation
(36 hrs) 9 hrs 9 hrs 3 hrs 3 hrs 3 hrs 3 hrs 6 hrs

## 2. Common Program Prerequisites

Must be completed with a "C" (2.0) or better.
ACG 2021 Principles of Financial Accounting
ACG 2071 Principles of Managerial Accounting
ECO 2013 Principles of Macroeconomics
ECO 2023 Principles of Microeconomics
*ECO 3401 Quantitative Business Tools I
CGS 2100C Computer Fundamentals for Business

* At UCF, students who have completed MAC2233 and STA2023 will be waived from ECO3401. Students who have not completed both classes with a "C" (2.0) or better must take ECO3401.


## 3. Required for All Business Majors

(30 hrs)

## Common Body of Knowledge

First Semester in the College of Business Administration:
GEB 3031 Cornerstone 6 hrs
First or subsequent semesters depending on major:
BUL 3130 Legal \& Ethical Environments of
Business 3 hrs
ECO 3411 Quantitative Business Tools II 3 hrs
FIN 3403 Business Finance 3 hrs
MAN 3025 Management of Organizations 3 hrs
ISM 3011 Essentials of Management 3 hrs
Information Systems
MAR 3023 Marketing 3 hrs
Last Semester:
GEB 4361 Business in the International
Environment 3 hrs
MAN 4720 Strategic Management
3 hrs

## 4. Special college and/or department requirements:

- Students who change degree programs and select this major must adopt the most current catalog.
- Only grades of "C" (2.0) or higher transfer into the program and students must have a "C" (2.0) or better in each common program prerequisites class.
- Students wanting to major in Marketing must apply for admission to the major.
- Students not in attendance at the first meeting of any College of Business course may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.
- Final exams will be given during Exam Week.
- A transfer student to this program must take a minimum of 12 semester hours in marketing at UCF.

Students majoring in Marketing must earn a grade of "C" (2.0) or better in each course applied toward the major, and a 2.0 overall average in the major. MAR 3023 is included in this requirement.

Students must earn at least a 2.0 GPA in the major and COB.
Students must complete 60 semester hours in courses outside the College of Business.

## 5. Required Courses

MAR 3641 Marketing Intelligence
MAR 3503 Customer Behavior 3 hrs
MAR 3613 Marketing Analysis and Research
MAR 3391 Professional Selling 3 hrs
MAR 4803 Marketing Management
MAR 4804 Marketing Strategy

## 6. Restricted Electives

Minimum of 3 courses required
MAR 3323 Integrated Marketing Communication 3 hrs
MAR 3403 Sales Force Management 3 hrs
*MAR 3880 e-Marketing

## ( 18 hrs )

3 hrs

3 hrs

3 hrs
3 hrs

| MAR 4156 | International Marketing | 3 hrs |
| :--- | :--- | :---: |
| MAR 4231 | Retailing Management | 3 hrs |
| MAR 4941 | Marketing Internship | 3 hrs |
| MAR 4711 | Sports Marketing | 3 hrs |
| MAR 4712 | Healthcare Marketing | 3 hrs |
| MAR 4841 | Services Marketing | 3 hrs |
| *MAR 4XXX Strategic Found. in Global e-Business | 3 hrs |  |
| * either MAR 4156 or MAR 4XXX (not both) may be taken as an elective. |  |  |

## 7. Foreign Language Requirements

## (0-8 hrs)

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after any CLEP award
48 semester hours of upper division credit completed
30 semester hours of coursework completed in residency (last 30 hours) at UCF

- A maximum of 45 semester hours of extension, correspon-dence, CLEP, Credit by Exam, and Military credit permitted
- Completion of the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)


## 9. Electives

(variable)
***Total Semester Hours Required

## 120 hours

Majors who meet departmental criteria are also eligible to apply for a marketing internship (MAR 4941) and/or take the small business consulting class (MAR 5941). MAR 5941 cannot count as one of the three restricted electives required of marketing majors. For additional information about the department, curriculum, faculty, events, and careers in marketing, students are invited to visit our
department home page at: http://www.bus.ucf.edu/mar/.

## Community/Junior College Transfer Notes

- Common Program Prerequisites for the State University System for College of Business Administration programs include Financial Accounting, Managerial Accounting, Macroeconomics, Microeconomics, Calculus, Statistics, and a relevant computer class. At UCF Business, students who have completed the calculus and statistics class will be waived from Business Quantitative Tools I. Students who have completed either the calculus or the statistics, but not both, must take Quantitative Tools I.
- Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in the UCF Business program. Only grades of "C" (2.0) or higher transfer into the program and students must have a " C " $(2.0)$ or better in each common program prerequisites class.
- ACG X001 and X011 will substitute for ACG 2021 at UCF
- Florida Public Community College students are advised to complete the Associate of Arts degree, to include the general education requirements, the common program prerequisites for the SUS system, and college algebra.

Professional courses should not be taken at a community/junior college in the areas of Management, Marketing, Real Estate, or Finance. These professional areas are third and fourth year (junior, senior) course areas and cannot be satisfied with freshman, sophomore level courses.

A minimum of 12 semester hours must be completed at UCF within each individual major.
Orientation and advising are two of the most valuable tools that a student can make use of when transferring to UCF. Be sure that you take advantage of both.

## FOUR YEAR PLAN OF STUDY - MARKETING

## Freshman

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | ---: | :---: | ---: |
| ENC 1101* | 3 | ENC 1102* | 3 |
| Cult-Hist I* | 3 | Cult-Hist II* | 3 |
| SPC 1600C | 3 | Art/Music/Lit | 3 |
| ***Elective | 3 | MAC 1105* | 3 |
| ***Elective | 3 | CGS 2100C | 3 |

Sophomore
Fall
ECO 2013*

ACG 2021*
Science
Psy/Soc/Ant
***Elective
15 hrs Spring
3 ECO 2023*
3 ACG 2071*
3 Science
3 ***Elective
3 ECO 3401*

15 hrs
3
3 3 3 3 * " $C$ " (2.0) or better grade required in each class

Junior

| Fall | $\mathbf{1 5} \mathbf{~ h r s ~}$ | Spring | $\mathbf{1 2 ~ h r s ~}$ |
| :--- | ---: | :---: | :---: |
| GEB 3031 | 6 | MAR 3503 | 3 |
| $* * *$ Elective | 3 | MAR 3641 | 3 |
| MAR 3023 | 3 | ECO 3411 | 3 |
| MAN 3025 | 3 | FIN 3403 | 3 |


| Summer | $\mathbf{9} \mathbf{h r s}$ |
| :--- | ---: |
| ISM 3011 | 3 |
| MAR 3613 | 3 |
| MAR Elective | 3 |

Senior

| Fall | 12 hrs | Spring | 12 hrs |
| :--- | :---: | ---: | :---: |
| BUL 3130 |  | 3 | MAN 4720 |
| MAR 4803 | 3 | MAR 4804 | 3 |


| MAR 3391 | 3 | GEB 4361 | 3 |
| :--- | :--- | ---: | :--- |
| MAR Elective |  | 3 | MAR Elective |

***General electives as required to reach 120 semester hours to include at least 60 semester hours outside the College of Business Administration. Economics courses in the Common Program Prerequisites and the Common Body of Knowledge count toward the 60 hours outside Business Administration.

## MATHEMATICS-APPLIED TRACK (B.S.)

## College of Arts and Sciences

Department of Mathematics, MAP 207 407-823-6284
http://www.cas.ucf.edu/mathematics
E-mail: math@ucf.edu
M. Taylor, MAP 202B, 407-823-2228, mtaylor@ucf.edu

The Department of Mathematics offers special courses for students in the Honors Program. These courses are with an H such as MAC 2311 H, MAC 2312 H , MAC 2313 H , MAC 2281 H , MAC 2282 H , MAC 2283 H , and MAP 2302 H .

Admission Requirements
none

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
All mathematics courses except MAC 2311, 2312, 2313, and MAP 2302 must either be taken from, or approved by the Department of Mathematics at UCF

- Departmental Residency Requirement: at least 24 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Math Department

Students should take MAS 3105 (Elementary Linear and Matrix Algebra) before taking MAS 3106 (Linear Algebra). MAS 3105 will then be used as a free elective

Co-op or internship credit can not be used in this major
Students must earn at least a "C" (2.0) in each required course
Students should consult with a departmental advisor

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program
( $\mathbf{3 6} \mathrm{hrs}$ )
(Note: Certain courses must be selected in the GEP for this major which brings the GEP hours above 36)
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 2311 Calculus I
Select COP 3502C Computer Science I
D. Social Foundations
E. Science Foundations

Select BSC 2010C General Biology
Select PHY 2048 \& L Physics for Sci \& Eng I
2. Common Program Prerequisites

COP 3502C* Computer Science I
MAC 2311 Calculus I
MAC 2312 Calculus II
MAC 2312 Calculus III
BSC 2010C* General Biology
PHY 2048* \& L Physics for Sci \& Eng I \& Lab
*See Transfer Notes for possible substitutes

## 3. Core requirements

PHY 2049 \& L Physics for Sci \& Eng II \& Lab
One course selected from
ENC 3241 Technical Report Writing
ENC 3310 Magazine Writing
ENC 3311 Advanced Expository Writing
( 8 hrs )
GEP
GEP
4 hrs
4 hrs
GEP
GEP

4 hrs
3 hrs

| STA 2023 | Statistical Methods I | 3 hrs |
| :--- | :--- | :---: |
| MHF 2300 | Logic and Proof | 3 hrs |
| MAP 2302 | Differential Equations | 3 hrs |
| MAS 3106 | Linear Algebra | 4 hrs |
| (MAS 3105 is a prerequisite course) |  |  |
| Select one course | 3 hrs |  |
| MAD 4203 | Combinatorics \& Graph Theory |  |
| MAP 4153 | Vector and Tensor Analysis | 3 hrs |
| MAP 4307 | Appl of Complex Variables | 3 hrs |
| MAP 4363 | Appl Boundary Value Prob I | 3 hrs |
| STA 4321 | Statistical Theory I | 3 hrs |
| MAP 4364 | Appl Boundary Value Prob II | 3 hrs |
| COP 3503C | Computer Science II | 3 hrs |
| STA 4322 | Statistical Theory II | 4 hrs |
| MAA 4226 | Advanced Calculus I | 3 hrs |
| COT 4500 | Numerical Calculus | 3 hrs |
| MAP 4103 | Mathematical Modeling |  |

## 4. Restricted Electives

Applied Elective
Select from COT 4210, COT 4110, COT 5310, COT 5405, COT 5507, COT 5510, EGN 3310, EGN 3321, EGN 3343, EGN 3373

Upper division restricted
Upper division or graduate mathematics or statistics courses or from COT 5510 or COT 4210.
(MAC 2233, 2253, 2254 and MHF 4404 may not be used.)

## 5. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or better in each course required in the degree program (sections 2-4 above)
- Computer Competency met by COP 2200


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam.

## 7. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA
- 60 semester hours earned after CLEP awarded

48 semester hours of upper division credit completed

- 30 semester hours in regular courses completed at UCF
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted.
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable).

Related Programs: Applied Math, Computer Science, Engineering, Math Education, Statistics

Related Minors: Applied Computer Science, Computer Science, Engineering, Math, Physics, Statistics

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- COP 3502C*: may use any programming language course with a COP prefix

BSC 2010C*: may use any laboratory BSC or CHM course which is designed for majors

- PHY 2048*: may use any PHY course with a lab. However PHY 2048 is a prerequisite for PHY 2049 and must be taken
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## MATHEMATICS - COMPUTATIONAL TRACK (B.S.)

## College of Arts and Sciences

Department of Mathematics, MAP 207, 407-823-6284

## http://www.cas.ucf.edu/mathematics

## E-mail: math@ucf.edu

M. Taylor, MAP 202B, 407-823-2228, mtaylor@ucf.edu

The Department of Mathematics offers special courses for students in the Honors Program. These courses are designated with an H such as MAC 2311 H, MAC 2312 H , MAC 2313 H , MAC 2281 H , MAC $2282 \mathrm{H}, \mathrm{MAC} 2283 \mathrm{H}$, and MAP 2302 H .

## Admission Requirements

none

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
All mathematics courses except MAC 2311, 2312, 2313 (or MAC 2281, 2282, 2283), and MAP 2302 must either be taken from, or approved by, the Department of Mathematics at UCF.

- Students must complete one full sequence of calculus; either Calculus with Analytic Geometry (MAC 2311, 2312, 2313) or Calculus for Engineers and Scientists (MAC 2281, 2282, 2283). Only complete calculus sequences will be accepted.

Departmental Residency Requirement: at least 24 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Mathematics Department.

Students must earn at least a "C" (2.0) in each required course.
Co-op or internship credit can not be used in this major.

- Students should consult with a departmental advisor.

Courses designated in sections 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours.

## 1. UCF General Education Program

 (36 hrs)(Note: Certain courses must be selected in the GEP for this major which brings the GEP hours above 36)
A. Communication Foundations 9 hrs
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations
Select MAC 2311 Calculus I
4 hrs
Select COP 3502C Computer Science I 3 hrs
D. Social Foundations 6 hrs
E. Science Foundations
Select BSC 2010C General Biology
4 hrs
Select PHY 2048 \& L Physics for Sci \& Engr I 4 hrs

## 2. Common Program Prerequisites

COP 3502C* Computer Science I
MAC 2311** Calculus I
MAC 2312** Calculus II 4 hrs
MAC 2313** Calculus III 4 hrs
BSC 2010C* General Biology
PHY 2048*\&L Physics for Sci \& Eng I w/lab
*See Transfer Notes for possible substitutes
**At UCF the calculus sequence MAC 2281, 2282, 2283 is preferred as a substitute for the sequence MAC 2311, 2312, 2313. However, students who plan to transfer to another institution within the SUS may want to take the sequence MAC 2311, 2312, 2313 to ensure transferability.

## 3. Basic Core Requirements

PHY 2049\&L Physics for Sci \& Eng II w/lab
( 10 hrs )
4 hrs

| STA 2023 | Statistical Methods I | 3 hrs |
| :--- | :--- | :---: |
| MAP 2302 | Differential Equations | 3 hrs |
|  |  |  |
| 4. Advanced Core Requirements | $\mathbf{( 4 5 ~ h r s )}$ |  |
| Select one course | 3 hrs |  |
| MHF 2300 | Logic and Proof |  |
| COT 3100C | Intro to Discrete Structures |  |
| ENC 3241 | Technical Report Writing | 3 hrs |
| MAS 3106 | Linear Algebra | 4 hrs |
| MAD 4203 | Combinatorics \& Graph Theory | 4 hrs |
| MAP 4307 | Appl of Complex Variables | 3 hrs |
| MAP 4363 | Appl Boundary Value Prob I | 3 hrs |
| STA 4321 | Statistical Theory I | 3 hrs |
| MAP 4364 | Appl Boundary Value Prob II | 3 hrs |
| COP 3503C | Computer Science II | 3 hrs |
| STA 4322 | Statistical Theory II | 3 hrs |
| MAA 4226 | Advanced Calculus I | 4 hrs |
| COT 4500 | Numerical Calculus | 3 hrs |
| COP 3223 | C Language | 3 hrs |
| Select one course | 3 hrs |  |
| MAP 4103 | Mathematical Modeling |  |
| MAP 4153 | Vector and Tensor Analysis |  |

## 5. Restricted Electives

(18 hrs)
Select six upper division courses

COP 3402C Systems Software 3 hrs
COP 3530C Computer Science III 3 hrs
CDA 4150 Computer Architecture 3 hrs

COP 4020 Programming Languages I 3 hrs
COP 4600 Operating Systems 3 hrs
COT 4210 Discrete Computational Structures 3 hrs
or any MAA, MAD, MAP, MAS, or MTG upper division courses

## 6. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or better in each course required in the degree program (sections 2-4 above).
- Computer Competency met by COP 3502C.


## 7. Foreign Language Requirements

Admission: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

## Graduation:

## none

## 8. Electives

Students desiring to complete a double major in both Computer Science and Applied Mathematics must also complete all the requirements of the School of Computer Science. To minimize the total hours taken for both majors, students should select an advanced computer science course for the unrestricted elective.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA

- 60 semester hours earned after CLEP awarded

48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST, and nine hours of Summer credit (if applicable)

Related Programs: Applied Mathematics, Computer Science, Engineering, Math Education, Statistics

Related Minors: Applied Computer Science, Computer Science, Engineering, Math, Physics, Statistics

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- COP 3502 C *: may use any programming language course with a COP prefix.

BSC 2010C*: may use any laboratory BSC or CHM course which is designed for majors.

- PHY 2048*: may use any PHY course with a lab; however, PHY 2048 is a prerequisite for PHY 2049 which must be taken.
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## MATHEMATICS - ENGINEERING/PHYSICS TRACK (B.S.)

## College of Arts and Sciences

Department of Mathematics, MAP 207, 407-823-6284

## http://www.cas.ucf.edu/mathematics

## E-mail: math@ucf.edu

M. Taylor, MAP 202B, 407-823-2228, mtaylor@ucf.edu

The Department of Mathematics offers special courses for students in the Honors Program. These courses are designated with an H such as MAC 2311 H , MAC 2312 H , MAC 2313 H , MAC 2281 H , MAC $2282 \mathrm{H}, \mathrm{MAC} 2283 \mathrm{H}$, and MAP 2302 H .

## Admission Requirements

none

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
All mathematics courses except MAC 2311, 2312, 2313 (or MAC 2281, 2282, 2283), and MAP 2302 must either be taken from, or approved by, the Department of Mathematics at UCF.

- Students must complete one full sequence of calculus; either Calculus with Analytic Geometry (MAC 2311, 2312, 2313) or Calculus for Engineers and Scientists (MAC 2281, 2282, 2283). Only complete calculus sequences will be accepted.

Departmental Residency Requirement: at least 24 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Mathematics Department.

Students must earn at least a "C" (2.0) in each required course.
Co-op or internship credit can not be used in this major.

- Students should consult with a departmental advisor.

Courses designated in sections 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours.

## 1. UCF General Education Program

 (36 hrs)(Note: Certain courses must be selected in the GEP for this major which brings the GEP hours above 36)
A. Communication Foundations 9 hrs
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations
Select MAC 2311 Calculus I
4 hrs
Select COP 3502C Computer Science I 3 hrs
D. Social Foundations 6 hrs
E. Science Foundations
Select BSC 2010C General Biology
4 hrs
Select PHY 2048 \& L Physics for Sci \& Engr I 4 hrs

## 2. Common Program Prerequisites

COP 3502C* Computer Science I
MAC 2311** Calculus I
MAC 2312** Calculus II 4 hrs
MAC 2313** Calculus III 4 hrs
BSC 2010C* General Biology
PHY 2048*\&L Physics for Sci \& Eng I w/lab
*See Transfer Notes for possible substitutes
**At UCF the calculus sequence MAC 2281, 2282, 2283 is preferred for the Engineering and Physics majors as a substitute for the sequence MAC 2311, 2312, 2313. However, students who plan to transfer to another institution within the SUS may want to take the sequence MAC 2311, 2312, 2313 to ensure transferability.

## 3. Basic Core Requirements

| PHY 2049\&L | Physics for Sci \& Eng II w/lab | 4 hrs |
| :--- | :--- | :--- |
| Select one course | 3 hrs |  |
| STA 3032 | Prob. \& Stats for Engineers |  |
| STA 2023 | Statistical Methods I |  |
| MAP 2302 | Differential Equations | 3 hrs |

## 4. Advanced Core Requirements

Select one course 3 hrs
MHF 2300 Logic and Proof
COT 3100C Intro to Discrete Structures
Select one course 3 hrs
MAP 4103 Mathematical Modeling
EML 3034 Modeling Meth in Mech. \& Aero Eng
PHZ 3151 Computer Methods in Physics
MAP $4153 \quad$ Vector and Tensor Analysis 3 hrs
MAP 4307 Appl of Complex Variables 3 hrs
MAP 4363 Appl Boundary Value Prob I 3 hrs
MAP 4364 Appl Boundary Value Prob II 3 hrs
MAA 4226 Advanced Calculus I 4 hrs
EGN $3321 \quad$ Engineering Analysis - Dynamics 3 hrs
Select one course 3 hrs
EGN 3420 Engineering Analysis
COT 4500 Numerical Calculus
Select one course 4 hrs
MAS 3106 Linear Algebra
MAD 4203 Combinatorics \& Graph Theory
Select one course
3 hrs
EGN 3310 Engineering Analysis - Statics
Select one course 3 hrs

EGN 3373 Principles of Electrical Engineering
PHY 3101 Physics for Eng \& Sci III
Select one course 4 hrs
CHS 1440 Fund. of Chemistry for Eng.
CHM 2045C Chemistry Fundamentals
or any MAA, MAD, MAP, MAS, or MTG course
Select one course
3 hrs
EGN 3358 Thermo-Fluids-Heat Transfer
PHY 3503 Thermal \& Statistical Physics
or any MAA, MAD, MAP, MAS, or MTG course
Select one course
3 hrs
EML 3701 Fluid Mechanics
CWR 3201 Engineering Fluid Mechanics
PHY 3101 Physics for Eng \& Sci III
(PHY 3101 may be selected only if EGN3373 is also taken)
EIN 4118C Industrial Applications of Computers
PHZ 3113 Intro. to Theoretical Methods of Physics
or any MAA, MAD, MAP, MAS, or MTG course
Select one course
3 hrs
EGN 3331 Mechanics of Materials
CHM 2046 Chemistry Fundamentals II
ESI 4312 Operations Research
EML 3601 Solid Mechanics
EML 4220 Vibration Analysis
EEL 3122C Electrical Networks
PHY 4605 Wave Mechanics II
or any MAA, MAD, MAP, or MAS course

Select one course
3 hrs
CES 4100 Structural Analysis I
EGN 3331 Mechanics of Materials
EIN 3304 Intro. to Indust. Eng. \& Mngmnt Sys
EAS 3101 Aerodynamics I
EML 3601 Solid Mechanics
EEL 3122C Electrical Networks
or any PHY, PHZ, AST, MAA, MAD, MAP, or MAS course

## 5. Restricted Electives

Select three courses
STA 4321 Statistical Theory I
STA 4322 Statistical Theory II
PHY 3323 Electricity \& Magnetism I
PHY 4324 Electricity \& Magnetism II
EGN 3365 Structure \& Property of Materials
EGN 3613 Engineering Economic Analysis
EGN 3704 Engineering \& the Environmental
EEL 3342C Intro. to Digital Circuits and Systems
EEL 3801C Intro. to Computer Engineering
EEL 3657 Linear Control Systems
EML $4142 \quad$ Heat Transfer
EML 3312C Feedback Control
EML 3262C Kinematics and Mechanisms
EAS 4200 Flight Structures
EAS $4400 \quad$ Spacecraft Attitude Dynamics

EAS 4505 Orbital Mechanics
EAS 4105 Flight Mechanics
EML 4703 Fluid Mechanics II
EMA 4223 Deformation and Fracture of Materials
CWR 4203C Hydraulics
CWR 4101C Hydrology
ENV 4561 Environmental Eng Processes \& Design
ESI 4234 Quality Engineering
ESI 4523C Systems Simulation
EIN 4333C Industrial Control Systems
EEL 3470 Electromagnetic Fields
EEL 3552C Signal Analysis and Communications
EEL 4750 Digital Signal Processing Fund.
EEL 4767C Computer System Design I
EEL 4832 Eng. Applications of Computer Models
EEL 4851C Engineering Data Structures
or any MAA, MAD, MAP, or MAS course

## 6. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or better in each course required in the degree program (sections 2-4 above).
- Computer Competency met by EGN 3420 or COP 3503C.


## 7. Foreign Language Requirements

Admission: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

Graduation: None

Students desiring a double major in Engineering or Physics and Mathematics must also complete all requirements of both majors. Students should select electives which satisfy both majors simultaneously when possible.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA

- 60 semester hours earned after CLEP awarded

48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST, and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Applied Mathematics, Computer Science, Engineering, Math Education, Statistics

Related Minors: Applied Computer Science, Computer Science, Engineering, Math, Physics, Statistics

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements

Courses taken at community colleges do not substitute for Upper Division courses
Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:
COP 3502C*: may use any programming language course with a COP prefix.
BSC 2010C*: may use any laboratory BSC or CHM course which is designed for majors.
PHY 2048*: may use any PHY course with a lab; however, PHY 2048 is a prerequisite for PHY

## 2049 which must be taken.

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Orlando, Florida
(407) 823-2000

## MATHEMATICS - PURE TRACK (B.S.)

## College of Arts and Sciences

Department of Mathematics, MAP 207 407-823-6284
http://www.cas.ucf.edu/mathematics

## E-mail: math@ucf.edu

M. Taylor, MAP 202B, 407-823-2228, mtaylor@ucf.edu

The Department of Mathematics offers special courses for students in the Honors Program. These courses are designated with an H such as MAC 2311 H , MAC 2312 H , MAC 2313 H , MAC 2281 H , MAC $2282 \mathrm{H}, \mathrm{MAC} 2283 \mathrm{H}$, and MAP 2302 H .

## Admission Requirements

none

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.

- All mathematics courses except MAC 2311, 2312, 2313, and MAP 2302 must either be taken from, or approved by the Department of Mathematics at UCF.

Departmental Residency Requirement: at least 24 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Mathematics Department.

Students should take MAS 3105 (Elementary Linear and Matrix Algebra) before taking MAS 3106 (Linear Algebra). MAS 3105 will then be used as a free elective.

Students must earn at least a "C" (2.0) in each required course.
Co-op or internship credit can not be used in this major.
Students should consult with a departmental advisor.
Courses designated in 1 (General Ed Program) and 2 (Common Program Prerequisites) are usually
completed in the first 60 hours.

## 1. UCF General Education Program

(36 hrs)
(Note: Certain courses must be selected in the GEP for this major which brings the GEP hours above 36)
A. Communication Foundations 9 hrs
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations

Select MAC 2311 Calculus I 4 hrs
Select COP 3502C Computer Science I 3 hrs
D. Social Foundations 6 hrs
E. Science Foundations

Select BSC 2010C General Biology 4 hrs
Select PHY 2048 \& L Physics for Sci \& Eng I
(PR:MAC 2311) 4 hrs
2. Common Program Prerequisites

COP 3502C* Computer Science I
MAC 2311 Calculus I
MAC 2312 Calculus I
MAC 2313 Calculus III 4 hrs
BSC 2010C* General Biology
PHY 2048* \& L Physics for Sci \& Eng I \& Lab
*See Transfer Notes for possible substitutes
(8 hrs)
GEP
GEP
4 hrs

GEP
GEP

## 3. Core requirements

PHY 2049 \& L Physics for Sci \& Eng II \& Lab
One course selected from
ENC 3241 Technical Report Writing
(52 hrs)
4 hrs
3 hrs

| ENC 3310 | Magazine Writing |  |
| :--- | :--- | :--- |
| ENC 3311 | Advanced Expository Writing |  |
| STA 2023 | Statistical Methods | 3 hrs |
| MHF 2300 | Logic and Proof | 3 hrs |
| MAP 2302 | Differential Equations | 3 hrs |
| MAS 3106 | Linear Algebra | 4 hrs |
| (MAS 3105 is a prerequisite course) |  |  |
| MAP 4363 | Applied Boundary Value Prob I | 3 hrs |
| STA 4321 | Statistical Theory I | 3 hrs |
| MAS 4301 | Algebraic Structures | 3 hrs |
| STA 4322 | Statistical Theory II | 3 hrs |
| COP 3503C | Computer Science II | 3 hrs |
| MAA 4226 | Advanced Calculus I | 4 hrs |
| MAA 4227 | Advanced Calculus II | 3 hrs |
| MAD 4203 | Combinatorics \& Graph Theory | 4 hrs |
| MTG 4302 | Introduction to Topology | 3 hrs |
| MAP 4307 | Appl to Complex Variables | 3 hrs |

## 4. Restricted Electives

Math or Statistics restricted
(7 hrs) 4 hrs

Upper division or graduate mathematics or statistics courses or from COT 4500, COT 5510, or COT 4210. (MAC 2233, 2253, 2254, and MAA 5210 may not be used.)

Biological or physical sciences restricted 3 hrs
Select from PCB 3023, PCB 3034, PCB 3063, PCB 4302C, PCB 4303C PCB 4723, CHM 2045C, CHM 2046, PHY 3101, PHY 3323, PHY 4424

## 5. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or better in each course required in the degree program (sections 2-4 above)

Computer Competency met by COP 3502C

## 6. Foreign Language Requirements

Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam.

## 7. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Statistics, Applied Math, Computer Science, Engineering, Math Education

Related Minors: Computer Science, Engineering, Math, Physics, Statistics

## Transfer Notes:

Grades below "C" (2.0) from other institutions do not meet departmental requirements.
Courses taken at community colleges do not substitute for Upper Division courses.
Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- COP 3502C*: may use any programming course with a COP prefix.
- BSC 2010C*: may use any laboratory BSC or CHM course which is designed for majors
- PHY 2048*: may use any PHY course with a lab. However PHY 2048 is a prerequisite for PHY 2049 and must be taken

MATHEMATICS EDUCATION (B.S.)

## College of Education

Department of Instructional Programs and Educational Leadership, ED346, 407-823-2939
Coordinator: Doug Brumbaugh, ED107, 407-823-2045,
E-mail: brumbad@pegasus.cc.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university

Have a minimum 2.5 overall GPA

- Pass four parts of the CLAST examination (no alternatives are accepted)
- Complete prerequisite courses


## Degree Requirements

- Students should see an advisor
- The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II

3 hrs
3 hrs
B. Cultural-Historical Foundations* (9 hrs)
AMH 2010 U.S. History 1492-1877 3 hrs
AMH 2020 U.S. History 1877-Present 3 hrs

PHI 2010 Introduction to Philosophy 3 hrs
C. Mathematical Foundations* (7 hrs)

MAC 2311 Calculus with Analytic Geometry I 4 hrs
STA 2023 Statistical Methods I 3 hrs
D. Social Foundations (6 hrs)

POS 2041 American National Government 3 hrs
PSY 2013 General Psychology 3 hrs
E. Science Foundations (6 hrs)

PSC 1121 Physical Science 3 hrs
Select one:
ANT 2511 The Human Species or 3 hrs
BSC 1005 Biological Principles 3 hrs
Note: See laboratory component under Section 2.

## 2. Common Program Prerequisites

(31 hrs)
A. Communications (9 hrs)

ENC 1101 Composition I GEP

ENC 1102 Composition II GEP
SPC 1600C Fundamentals of Oral Communication GEP
B. Humanities

PHI 2010 Introduction to Philosophy
Select one:
(6 hrs)

ARH 2050 The History of Art I or
ARH 2051 The History of Art II or

MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics
(11 hrs)

MAC 2311 Calculus with Analytic Geometry I GEP
MAC 2312 Calculus with Analytic Geometry II 4 hrs

STA 2023 Statistical Methods I
D. Social Science/History 1492-1877 GEP

AMH 2020 U.S. History 1877-Present GEP
POS 2041 American National Government GEP
PSY 2013 General Psychology
E. Science

PSC 1121 Physical Science
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Select one:
AST 2002 Astronomy or
GEO 1200 Physical Geography or
GLY 1030 Geology and its Applications
Select one associated science lab:
1 hr
BSC 1005L Biological Principles Laboratory or
GEO 1200L Physical Geography Laboratory or
PSC 1121L Physical Science Laboratory

3 hrs
GEP
(9 hrs + lab)
GEP
GEP
F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations
(9 hrs)
3 hrs
3 hrs

## GEP

(12 hrs) AMH 2010
AMH $2010 \quad$ U.S. History

EME 2040 Intro to Educational Technology 3 hrs
G. Diversity Courses
H. Other Program Prerequisites

MAC 2313 Calculus with Analytic Geometry III 4 hrs
Note: student should consult advisor regarding course options.

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to 2000-01, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in Mathematics Education take a series of core and specialization courses to prepare them to teach Mathematics Education in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Mathematics Education major's program and to integrate theory and practice in actual school settings. Throughout the Mathematics Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been
assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 5. Foreign Language Requirements

(0-8 hrs)
State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

Achieve a minimum 2.5 GPA in all courses within the major.

- Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.

## 7. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 8. Total Semester Hours Required

## To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.
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## MECHANICAL ENGINEERING (B.S.M.E.)

## College of Engineering and Computer Science

Mechanical, Materials \& Aerospace Engineering Department, ENGR 307, 407-823-5828, Fax: 407-823-0208, Home Page: http://www.mmae.engr.ucf.edu
A. H. Hagedoorn, ENGR 216,

E-Mail: hagedorn@pegasus.cc.ucf.edu

## Admission Requirements:

All entering students are required to attend Orientation before registering for their first semester at UCF. Orientation includes engineering academic advisement and registration for first-semester UCF classes; see also the section, Orientation, found elsewhere in this catalog.

## Degree Requirements

Each engineering student is assigned a qualified engineering academic advisor in the department of his/her major. Each student must seek academic advisement before registering for classes each semester to minimize excess hours and to ensure that satisfactory academic progress is being maintained.

## 1. UCF General Education Program for Engineering

Students (38 hrs)

The UCF General Education Program (GEP) is described in the section, General Education Program, found elsewhere in this catalog. Engineering students should closely study the requirements of the UCF GEP and the allowable substitutions detailed in paragraphs A. through E. below to minimize excess hours. Students transferring to UCF from within the Florida State University/ Community College Systems should complete the GEP and the Common Program Prerequisites before transferring.
A. Communication Foundations
9 hrs

1. Take ENC 1101
2. Take ENC 1102
3. Prefer SPC 1016
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations 7 hrs
4. Take MAC 2281, Calculus for Scientists and Engineers I, (4 hrs). Note: College algebra and trigonometry are prerequisites for Calculus I. See the course descriptions.
5. Take STA 3032 ( 3 hrs ). Note: Calculus II is the prerequisite for this course.
D. Social Foundations

6 hrs

1. Take ECO 2013 or ECO 2023.
2. Take ANT 2000, PSY 2013, or SYG 2000.
E. Science Foundations

7 hrs

1. Take PHY 2048/48L.
2. Take either GEO 1200 or GEO 2370.

## 2. Common Program Prerequisites (CPP's)

(19 hrs)
These courses are specifically required for all engineering students of the Florida State University System. CPP courses are also available at other Florida post-secondary schools and may be transferred directly to UCF programs. All engineering students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable. Note: MAC 2281 and PHY 2048/48L also satisfy UCF GEP sub-requirements, as do ENC 1101, ENC 1102, the Humanities courses, and the Social Science courses.

CHS 1440 Fundamentals of Chemistry for Eng 4 hrs
(CHM 2045/45L will substitute)
MAC 2281 Calculus for Scientists \& Engineers I GEP
(MAC 2311 will substitute)
MAC 2282 Calculus for Scientists \& Engineers II 4 hrs
(MAC 2312 will substitute)
MAC 2283 Calculus for Scientists \& Engineers III 4 hrs
(MAC 2313 will substitute)

| MAP 2302 | Differential Equations | 3 hrs |
| :--- | :--- | :---: |
| PHY 2048/48L | Physics for Engineers \& Scientists I | GEP |
| PHY 2049/49L | Physics for Engineers \& Scientists II | 4 hrs |
| ENC 1101 | Composition I | GEP |
| ENC 1102 | Composition II | GEP |
| Humanities Courses | GEP |  |
| Social Science Courses | GEP |  |
| Humanities $\boldsymbol{o r}$ Social Sciences | GEP |  |

## 3. Courses Required for the Major

 (49 hrs)The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.25 GPA in completing these courses, together with the senior design courses listed in 4. below. Independent study courses generally do not satisfy major requirements and normally are awarded grades of S or U .

EGN 1006 Intro to the Engineering Profession 1 hr
EGN 1111C Engineering Computer Graphics 2 hrs
EGN 1930 ST: Engineering Concepts \& Methods 1 hr
EGN 3310 Engineering Analysis - Statics 3 hrs
EGN 3321 Engineering Analysis - Dynamics 3 hrs
EGN 3343 Thermodynamics 3 hrs
EGN 3365 Structure \& Properties of Materials 3 hrs
EGN 3930 ST: Principles of Electrical Engnring 3 hrs
EGN 4624 Engineering Administration 3 hrs
STA 3032 Probability \& Statistics for Engineers GEP
EML 3034 Modeling Methods in MMAE 3 hrs
EML 3303C Mechanical Engrng Measurements 3 hrs
EML 3312C Feedback Control 3 hrs
EML $3500 \quad$ Machine Design \& Analysis 3 hrs

| EML 3601 | Solid Mechanics | 3 hrs |
| :---: | :---: | :---: |
| EML 3701 | Fluid Mechanics I | 3 hrs |
| EML 4142 | Heat Transfer | 3 hrs |
| EML 4220 | Vibration Analysis | 3 hrs |
| EML 4535C | Introduction to CAD/CAM | 3 hrs |
| Select one of the following three options for your senior year to complete your BSME. See your ME advisor for assistance in making this selection. <br> ( 16 hrs ) |  |  |
| EML 3101 | Thermodynamics of Mechanical Sys | 3 hrs |
| EML 4304C | Thermo-fluids Measurements | 2 hrs |
| EML 4703 | Fluid Mechanics II | 3 hrs |
| Approved Elect | ives | 8 hrs |
| b. Mechanical Systems Option |  |  |
| EMA 3012C Experimental Techniques in |  |  |
| Mechanics \& Materials 2 hrs |  |  |
| EML 3262 | Kinematics of Mechanisms | 3 hrs |
| EML 3804C | Digital Control in Mechatronics | 3 hrs |
| Approved Elec | ives | 8 hrs |
| c. Materials Option |  |  |
| EMA 3012C Experimental Techniques in |  |  |
| Mechanics \& Materials 2 hrs |  |  |
| EMA 3124 | Structure \& Properties of Alloys | 3 hrs |
| EMA 4223 | Deformation \& Fracture of Materials | 3 hrs |
| Approved Elec | ives | 8 hrs |

## 5. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 6. Approved Technical Electives

Technical electives are available in the BSME program to address specific student interests in a variety of technical areas. Students should consult with their assigned academic advisor for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

## 7. University Minimum Graduation Requirements

A 2.0 UCF GPA.
60 semester hours earned after any CLEP award.
48 semester hours of upper division credit completed.
32 semester hours of regular courses completed at UCF.

- A maximum of 45 semester hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits are permitted.
- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable).

Total Semester Hours Required:

## 128 hours

Related Programs: Aerospace Engineering, Industrial Engineering.

Related Minors: Space Studies.

## Transfer Notes:

- Courses taken from Community Colleges do not substitute for Upper Division Courses
- Courses transferred must be formally evaluated for equivalency credit. The student must provide
all supporting information with his/her petition for this evaluation.
- EGN 1006 and EGN 1930 are required courses for incoming freshmen only. The two credit hours for these courses may be substituted by an approved Mechanical Engineering technical elective for transfer students.


## Tentative Course Schedule for Entering Freshmen

The tentative course schedule listed below is a guide for those students who plan on completing their degree in four years. All engineering students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Mechanical Engineering - 128 semester hours ${ }^{5}$ required <br> FIRST YEAR

| Fall $15 \mathrm{hrs}^{1,2}$ | Spring 15 hrs ${ }^{\mathbf{1}, 2}$ |  |
| :---: | :---: | :---: |
| EGN 1006 Intro to Eng Prof | 1 EGN 1930 ST: Eng Conc\&Meth | 1 |
| *ENC 1101 English Comp I | 3 *ENC 1102 English Comp II | 3 |
| *CHS 1440 Chm Eng or | 4 *MAC 2282 Calc Sci\&Eng II or | 4 |
| CHM 2045 w/lab | MAC 2312 Calc II |  |
| *MAC 2281 Calc Sci\&Eng I or | 4 *PHY 2048 Phys Eng I w/lab | 4 |
| MAC 2311 Calc I | *SPC 1016 Oral Comm for Eng or | 3 |
| *ECO 2013 Economics or | 3 SPC 1600C Oral Comm |  |
| ECO 2023 Prin of Econ I, II |  |  |

Summer ..... 10 hrs ${ }^{1,2,4}$
*MAC 2283 Calc Sci\&Eng III ..... 4
or MAC 2313 Calc III
*Social Foundations ..... 3
*Cult \& Hist Foundations ..... 3

## SECOND YEAR



## FOURTH YEAR

## I. ENERGY SYSTEMS OPTION

| Fall 14 hrs 1,3 | Spring | 14 hrs 1,3 |
| :--- | :--- | :--- |
| EML 3101 Thermo Mech Sys | 3 EML 4502C Eng Design II | 3 |
| (PR: EGN 3343) | (PR: EML 4501C) |  |
| EML 4703 Fluid Mechanics II | 3 EML 4304C Meas Therm Sys | 3 |
| (PR: EML 3701) | (PR: EML 3303C, 4142) |  |
| EML 4501C Eng Design I | 3 Approved Elective | 3 |
| (PR: EML 3304C, 3500, 3701) | Approved Elective | 2 |
| Approved Elective | 2 *Cult \& Hist Foundations 2 | 3 |
| *Cult \& Hist Foundations 2 | 3 |  |

## II. MECHANICAL SYSTEMS OPTION

Fall 14 hrs $^{1,3}$ Spring 14 hrs ${ }^{1,3}$
EML 3262C Kinem Mechnsms 3 EML 4502C Eng Design II 3 (PR: EGN 3321) (PR: EML 4501C)

EML 4501C Eng Design I (PR: EML 3304C, 3500, 3701)
*Cult \& Hist Foundations
Approved Elective
Approved Elective
*Cultural \& Hist Foundations

3 EML 3804C Mechatronics 3
(PR: EML 4535C, CR: EML
3 3312C)
2 EMA 3012C ExpTec Mech/Mtl 2
3 (PR: EGN 3365, EML 3601)
Approved Elective 3
3

## III. MATERIALS OPTION

Fall 14 hrs ${ }^{1,3}$ Spring 14 hrs ${ }^{1,3}$
EML 3101 Thermo Mech Sys 3 EML 4502C Eng Design II (PR: EGN 3343)
(PR: EML 4501C)
EML 4501C Eng Design I
3 EMA 4223 Dfrmatn Frct Matls
(PR: EML 3304C, 3500, 3701)

## EMA 3124 Struct/Props Alloys

(PR: EGN 3365)
*Cult \& Hist Foundations II
Approved Elective
(PR: EGN 3365)

## 3 EMA 3012C ExprTech

(PR: EGN 3365, EML 3601)
3 Approved Elective
2 *Cult \& Hist Foundations

## Notes:

1. Courses marked with an asterisk (*) are also available from most Community Colleges and are often part of their Pre-Engineering AA programs. Most of these courses are part of the UCF General Education Program; see the section on the GEP elsewhere in this catalog for further information.
2. All students must remain in the Calculus sequence with which they begin. Students who begin with MAC 2281 Calculus for Scientists and Engineers I, must continue with MAC 2282 and MAC 2283. Students who begin with MAC 2311 Calculus with Analytical Geometry I, must continue with MAC 2312 and MAC 2313. The individual courses in these two Calculus sequences are not interchangeable.
3. Students should consult with the MMAE Department in ENGR 381 for a list of approved technical electives and for the terms when specific courses of this type are to be offered. Students should check with their faculty advisor frequently to ensure they are making satisfactory progress toward their degree.
4. The State University System requires most students to complete a minimum of nine semester hours during summer
terms prior to graduation. See the section on Summer Attendance Requirement elsewhere in this catalog.
5. Mechanical engineering students must earn at least 32 hours in residence at UCF.

## IMPORTANT NOTICE

Bolded course should be taken in the term noted or in a previous term if your schedule permits and as long as all prerequisites for that course have been met.

- A number of bolded courses are given only during the term noted in this program of study, therefore it is imperative that you take them in the suggested sequence. Failure to do so may result in a considerable delay in the date of your graduation.
- Non-bolded course may be taken at any time as long as all prerequisites for that course have been met. Caution must be taken to ensure that you take courses in a proper sequence regarding prerequisites.

Please meet with your advisor if you have any questions regarding your schedule. Do not drop any course before discussing this action with your advisor - there may be alternative actions which will
benefit you.

- If you do not have a higher level programming language background you must take a course in this area prior to taking EML 3034 ("C" or FORTRAN recommended).
- If you are not ready to begin the Calculus sequence upon entry to the Mechanical Engineering curriculum it is imperative that you meet with your advisor to plan a personalized program of study. Mathematics and physics are cornerstones of a quality engineering program and it is important for your academic career that you proceed accordingly.


## Integrated BS/MS Degree Program

The Mechanical, Materials, and Aerospace Engineering Department offers the Integrated BS/MS Program to students of high academic standing. This program allows up to nine graduate hours to be substituted for specified BS requirements. See advisor for appropriate substitutions.
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## MEDICAL LABORATORY SCIENCES (B.S)

## College of Health and Public Affairs

HPA II 335, 407-823-2968
Undergraduate Program Director: Dorilyn Hitchcock
E-mail: hitchcod@mail.ucf.edu
Web Address: http://www.cohpa.ucf.edu/molec.bio/

## Admission Requirements - LIMITED ACCESS

Acceptance to the university does not necessarily constitute admission to the upper division medical laboratory science program.

- SEPARATE APPLICATION to the limited access program should be made directly to the program prior to March $\mathbf{1}$ of the year admission is sought. Preference will be given to those who apply prior to March 1, but applications will be accepted until the class is filled.
- UCF application must also be submitted by the program deadline
- Student must complete all general education, foreign language admissions, and program prerequisites prior to the start of the program
- All applicants must have a minimum overall GPA of 2.5 , and complete all program prerequisite courses with at least a grade of "C" (2.0) (No CLEP, TSD, or AP credit may be used for prerequisite courses)


## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog
Students should complete the General Education Program, Foreign Language Admissions and the Common Program Prerequisite Requirements before transferring within the Florida Public University/Community College System

Students should consult with a departmental advisor

- The courses designated in sections 1 and 2 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours
- A minimum overall GPA of 2.5 and a minimum grade of "C" (2.0) in prerequisite and major courses is required for admission to, continuation in, and graduation from the Medical Laboratory Sciences Program

UCF Residency Requirement: 32 hours

- The courses designated in sections 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
C. Mathematical Foundations

Select MAC 1105
Select CGS 2100C and STA 2023
D. Social Foundations
E. Science Foundations

Select BSC 2010C
Select CHM 2045C

## 2. Common Program Prerequisites

BSC 2010C General Biology and lab
CHM 2045C, 2046 Chemistry Fund'tals I\&II w/labs
STA 2023 Statistical Methods I
ZOO 3733C Human Anatomy and Lab* 4 hrs
CHM 2210, 2211 Organic Chemistry I\&II w/labs 8 hrs
MCB 3020C General Microbiology 5 hrs
PCB 3703C Human Physiology and Lab* 4 hrs

* see Transfer Notes
(36 hrs)
9 hrs
9 hrs
6 hrs

6 hrs
6 hrs

## (25 hrs)

GEP
GEP, 4 hrs
GEP
3. Core Requirements

MLS 3220C Clinical Microscopy with lab 3 hrs
MLS 4625 Advanced Clinical Chemistry I + Lab $3 / 1 \mathrm{hrs}$
MLS 4630 Advanced Clinical Chemistry II + Lab $\quad 3 / 1 \mathrm{hrs} \quad$ PCB 3233
Immunology 3 hrs

MLS 4430C Clinical Parasitology 2 hrs
MLS 3305 Hematology w/Lab 3/1 hrs
MLS 4506C Immunodiagnostics 3 hrs
MLS 3XXX Clinical Research 1 hrs
MLS 4550 Clinical Immunohematology 4 hrs
MLS 4460 Clinical Pathogenic Microbiology 4 hrs
MLS 4420C Clinical Mycology 1 hr
MLS 4334C Hemostasis 3 hrs
MLS 4933 Medical Technology Seminar 1 hr
MLS 3705 Concepts in Education/Management 3 hrs
MLS 4830C Interpretive \& Practical Clinical Chem 4 hrs
MLS 4831C Interpretive \& Practical
Immunohematology 4 hrs
MLS 4832C Interpretive \& Practical Hematology 4 hrs
MLS 4833C Diagnostic Microbiology 4 hrs
MLS 4834C Advanced Instrumentation 4 hrs
CGS 2100C Computer Fundamentals for Business 3 hrs

## 4. Upper Division Restricted Electives

none

## 5. Departmental Exit Requirements

( 126 hrs )

- A minimum 2.5 overall GPA is required for clinical assignment.
- The Degree in Medical Laboratory Sciences will be awarded upon satisfactory completion of the University's didactic component and the clinical component in an affiliated hospital laboratory
- Upon receiving the degree in Medical Laboratory Sciences, the graduate will be eligible to write a national certification examination and the State of Florida licensure examination

Students must earn a grade of "C" (2.0) or higher in required courses with a minimum 2.5 overall GPA for graduation

## 6. Electives

none

## 7. Foreign Language Requirements

 (0-8 hrs)Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation: None

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
31 semester hours in regular courses completed at UCF

- A maximum of 45 hrs of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Related Programs: Molecular Biology and Microbiology, Biology, Chemistry

Related Minors: Biology, Chemistry

## Transfer Notes:

Community College Equivalencies

Tentative Course Schedule for Entering Freshmen

Freshman Year
Fall
ENC 1101
MAC 1105
SPC 1600C
CHM 2045
CGS 2100
or PSY 2013

| Summer | $\mathbf{3}$ hrs |
| :--- | ---: |
| STA 2023 | 3 |

Sophomore Year

| Fall | 13 hrs | Spring |
| :--- | :---: | :---: |
| POS 2041 or ECO 2013 | 3 CHM 2211 |  |
| CHM 2210 | 3 CHM 2211L | 3 |
| ZOO 3733C | 4 MCB 3020C | 2 |
| EUH 2000 or HUM 2211 | 3 PCB 3703C | 5 |
| or AMH 2010 | EUH 2001 or HUM 2230 | 3 |

or AMH 2020
Summer 3 hrs
Fall
MLS 3220C
MLS 4625/L
PCB 3233
MLS 4430C
Summer

MLS 4830C
MLS 4831C

Senior Year

## Fall

MLS 4460
MLS 4420C
MLS 3XXX
MLS 4832C
MLS 4334
13 hrs Spring
4 MLS 4833C
12 hrs

1 MLS 4834C
1 MLS $4933 \quad 1$
4 MLS 37053
3
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## 15 hrs

3 MLS 3305/L 3/1
3/1 MLS 4630/L 3/1
3 MLS 4506C 3
2 MLS 4550

8 hrs
4
4

1 MLS 4834C 4

## MOLECULAR BIOLOGY AND MICROBIOLOGY (B.S.)

College of Health and Public Affairs
HPA II 335, 407-823-5932
Chair: Robert Gennaro
E-mail: gennaro@mail.ucf.edu
Web Address: http://www.cohpa.ucf.edu/molec.bio/

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog

Students should complete the General Education Program before transferring within the Florida Public University/Community College System

- Students should consult with a departmental advisor
- The courses designated in section 1 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours
- No CLEP, TSD, or AP credit may be used for major requirements
- Grades below "C-" (1.75) in life science courses from other institutions will be accepted
- The courses designated in sections 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
9 hrs
C. Mathematical Foundations 6 hrs

Select MAC 1105
Select STA 2023
D. Social Foundations 6 hrs
E. Science Foundations 6 hrs

Select BSC 2010C
Select CHM 2045
2. Common Program Prerequisites
(22 hrs)
BSC 2010C General Biology I
GEP
BSC 2011C Biological Diversity 4 hrs

CHM 2045, 2046, General Chemistry I, II, + Lab GEP, 4 hrs 2046L

CHM 2210, 2211, Organic Chemistry I, II, + Lab 10 hrs 2211L

MAC 2311 Calculus with Analytical Geometry I 4 hrs

## 3. Core Requirements

(39 hrs)

## Life Sciences

MCB 3020C General Microbiology 5 hrs
PCB 3063 Genetics 3 hrs
PCB 3233, 3233L Immunology + Immunology Lab 4 hrs
PCB 3523, 4524 Molecular Biology I, II 6 hrs
BSC $3404 \quad$ Quantitative Biological Methods 4 hrs
Chemistry
BCH 4053 Biochemistry I 3 hrs
Math* Calculus and Statistics

MAC 2253 or 2311 Applied Calculus I or Calculus I 3 hrs STA 2023 Gtatistical Methods I GEP

Physics*
PHY 2053C, 2054C College Physics I, II 8 hrs
or 2048C, 2049C
CGS 1060C Intro to Computer Science
3 hrs

## 4. Upper Division Restricted Electives

(Six Courses, of which at least two must be laboratory courses. No more than two may be MLS courses. Enrollment in some MLS courses is restricted. Check with advisor before enrolling. Either MCB 3203C or MLS 4460, but not both, may be counted.)
BCH 4054 Biochemistry II 3 hrs

BCH 4103L Biochemical Methods 2 hrs
MCB 3203, 3203L Pathogenic Microbiology + Lab 4 hrs
MCB 4114C Microbial Systematics and Diagnostics 4 hrs
MCB 4414 Microbial Metabolism 3 hrs
MCB 4603 Environmental Microbiology 3 hrs
MCB 5205 Infectious Process 3 hrs
MCB 5225 Molecular Biology of Disease 3 hrs
MCB 5487 Current Topics in Molecular Biology 3 hrs
MCB 5505 Virology 3 hrs
MCB 5527 Genetic Engineering \& Biotechnology 3 hrs
MCB 5654 Applied Microbiology 3 hrs
MLS 3220C Clinical Microscopy with lab 3 hrs
MLS 3305 Hematology/L 3/1 hrs
MLS 4334C Hemostasis 3 hrs
MLS 4420C Clinical Mycology 1 hr
MLS 4430C Clinical Parasitology 2 hrs
MLS 4460 Clinical Pathogenic Microbiology 4 hrs

| MLS 4506C | Immunodiagnostics | 3 hrs |
| :--- | :--- | :--- |
| MLS 4625 | Advanced Clinical Chemistry I/L | $3 / 1 \mathrm{hrs}$ |
| MLS 4630 | Advanced Clinical Chemistry II/L | $3 / 1 \mathrm{hrs}$ |
| PCB 3703C | Human Physiology | 4 hrs |
| PCB 4234 | Cellular Immunology | 3 hrs |
| PCB 4805 | Endocrinology | 3 hrs |
| PCB 4523 | Experimental Molecular Biology | 3 hrs |
| PCB 5026 | Signal Transduction Mechanisms | 3 hrs |
| PCB 5235 | Immunopathology | 4 hrs |
| PCB 5239 | Tumor Biology | 3 hrs |
| ZOO 3701C | Dissection Techniques | 2 hrs |
| ZOO 3733C | Human Anatomy | 4 hrs |
| ZOO 4603C | Vertebrate Embryology | 5 hrs |
| ZOO 4744 | Neurobiology | 3 hrs |
| ZOO 4753C | Vertebrate Histology | 5 hrs |
| ZOO 5745C | Essentials of Neuroanatomy | 4 hrs |

## 5. Departmental Exit Requirements

(81-91 hrs)
To be eligible for a major in Molecular Biology and Microbiology:

- A student must complete all coursework in the baccalaureate curriculum as shown, and, earn a GPA of at least 2.0 for all coursework in the Core and Restricted Electives

Independent study, directed research, or similar credit may not be used as a Restricted Elective

- A minimum of 20 hours must be taken at UCF in the department of the major
- Students will be required to take a comprehensive test during their last semester


## 6. Electives

(variable)
Suggested Elective: SLS 2311 - Overview of Selected Medical Careers, recommended for students pursuing any of the following fields: chiropractic, dental, medical, optometry, pharmacy podiatry, or

## 7. Foreign Language Requirements

Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:

## none

## 8. University Minimum Exit Requirements

## A 2.0 UCF GPA

48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
A maximum of 45 hrs of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Biology, Chemistry

Related Minors: Biology, Chemistry

## Transfer Notes:

Students who begin a two semester sequence course (e.g. General Chemistry) at a community college are strongly encouraged to complete the sequence before transferring. If it will not be possible to complete the sequence at the community college, the student should postpone beginning the course until enrolling at UCF. Students may elect to take Human Anatomy (ZOO 3733) and Human Physiology (PCB 3703) at UCF in order to meet the University's requirement that students complete 48 semester hours of upper division (3000/4000 level) credit. Students meeting the Human Anatomy and Human Physiology I \& II requirement at the community college (lower division) level must take an additional 8 eight hours of upper division coursework at UCF.

## Honors in the Major

Application and admission through the department and THC

- Fulfill University requirements for Honors in the Major and maintain a 3.2 UCF GPA; 3.5 in the major; 3.2 cumulative average for graded upper division courses regardless of the institution
- Complete BSC 3404H "Quantitative Biological Methods" with a grade of B or better (4 credits)
- Complete MCB 4970H "Honors Thesis" with a grade of B or better and successfully complete the oral defense of the Honors Thesis (3 credits)


## University Honors

Application and admission through THC
Fulfill University lower division requirements for University Honors

- Fulfill University upper division requirements for University Honors in Microbiology
- Complete BSC 3404H "Quantitative Biological Methods" with a grade of B or better (4 credits)
- Complete PCB 4524H "Molecular Biology II Honors" with a grade of B or better (3 credits)
- Complete One Interdisciplinary Honors Seminar (3 credits) outside major
*Note: Those students interested in pursuing graduate or professional education are strongly advised to select the following courses. Physics for Scientists and Engineers I \& II (PHY 2048, 2049, 2048L, 2049L); Applied Calculus I \& II (MAC 2253, 2254) or Calculus with Analytic Geometry I \& II (MAC 2311, 2312). Directed Research MCB 4912 is offered on an S/U basis.


## Tentative Course Schedule for Entering Freshmen

| Freshman Year |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | 14 hrs | Spring | 17 hrs |
| ENC 1101 | 3 | ENC 1102 | 3 |
| PSY 2013 or SYG 2000 | 3 | CGS 1060C | 3 |
| or ANT 2000 |  | CHM 2046 | 3 |
| CHM 2045 | 4 | CHM 2046L | 1 |
| MAC 1105 | 3 | MAC 1114 | 3 |
| SLS 2311* | 1 | BSC 2010C | 4 |

## Sophomore Year

| Fall | 16/17 hrs | Spring | 16 hrs |  |
| :--- | :---: | :---: | :---: | :---: |
| CHM 2210 | 3 | CHM 2211 | 3 |  |
| STA 2023 | 3 | CHM 2211L | 2 |  |
| MAC 2311 or MAC 2253 | $4 / 3$ | MCB 3020C | 5 |  |
| PCB 3233/L | $3 / 1$ | PCB 3063 | 3 | 5 |
| EUH 2000 or AMH 2010 | 3 | EUH 2001 or AMH 2020 | 3 |  |

Plan your required 9 summer hours into your course of study

## Junior Year

| Fall | $\mathbf{1 6} \mathbf{~ h r s}$ | Spring | 13/14 hrs |
| :--- | :---: | :---: | :---: |
| Restricted Elective | 3 | BSC 3404C | 3 |
| PCB 3523 | 3 | PCB 4524 | 3 |
| PHY 2053C or | 4 | PHY 2054C or | 4 |
| PHY 2048 \& L |  | PHY 2048 \& L |  |
| Restricted Elective | 3 | Restricted Elective | $3 / 4$ |
| ECO 2013 or POS 2041 | 3 |  |  |

Senior Year
Fall $\quad 12 / 14 \mathrm{hrs} \quad$ Spring $\quad 12 / 15 \mathrm{hrs}$

| BCH 4053 | 3 | Restricted Elective | $3 / 4$ |
| :--- | :---: | :---: | :---: |
| Restricted Elective | $3 / 4$ | Restricted Elective | $3 / 4$ |
| SPC 1600C | 3 | Elective | $3 / 4$ |
| Elective | $3 / 4$ | MUL 2010 or THE 1020 | 3 |
| or REL 2300 or PHI 2010 |  |  |  |

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MUSIC (B.A.)

## College of Arts and Sciences

Department of Music, CNH 205A,
http://pegasus.cc.ucf.edu/~ucfmusic

## E-mail: music@mail.ucf.edu

L. Eubank, 407-823-2869, Fax 407-823-3378

## Audition Requirements for Admission

Each student must audition and demonstrate advanced proficiency by performing compositions representing a variety of musical periods

- Memorization is required for pianists and vocalists
- Accompanists are provided by special request only
- Each candidate must bring his/her own audition music
- The department will only provide large instruments such as a tuba, a string bass, or timpani for these auditions
- The audition will serve as a placement examination for accepted candidates


## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

Departmental Residency Requirement; at least 25 hours must be taken from the UCF Music department

- Each student must perform a faculty-approved public recital

Co-op or internship credit can not be used in this major
Students should consult with a departmental advisor for course selections

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

(see General Education Program for detailed information)
A. Communication Foundations
9 hrs
B. Cultural and Historical Foundations

Select one two-semester sequence 6 hrs
Select MUH 4212 History and Literature II 3 hrs
C. Mathematical Foundations 6 hrs

Select MGF 1106 Finite Mathematics 3 hrs
(may substitute a higher level math)
Prefer STA 1060C Statistics Using Excel
3 hrs
D. Social Foundations 6 hrs
E. Science Foundations 6 hrs
2. Common Program Prerequisites (24 hrs)

MUT 1111* Music Theory IA 2 hrs
MUT 1112* Music Theory IB 2 hrs
MUT 1241* Ear Training \& Sight Singing IA 1 hr
MUT 1242* Ear Training \& Sight Singing IB 1 hr
MUT 2116* Music Theory IIA 2 hrs
MUT 2117* Music Theory IIB 2 hrs
MUT 2246* Ear Training \& Sight Singing IIA 1 hr
MUT 2247* Ear Training \& Sight Singing IIB 1 hr
MUN XXXX Major Ensembles (four semesters)4 hrs
(See Specialty requirements for specific requirements
and for the credits required)
MVB/MVK/MVP/

## 3. Core Requirements

## (14 hrs)

Piano proficiency 0 hrs (repeat MVK 3131-4141 Class Piano III-IV until passed) MUS $1010 \quad$ Music Forum (six semesters) 0 hrs MUT 3571 20th Century Musical Analysis 3 hrs MVB/MVK/MVP/ MVS/MVV/MVW Performance 4 hrs
(two semesters of Level III)
MUN XXXX Major Ensembles 2 hrs
MUG $3104 \quad$ Basic Conducting 2 hrs
MUH $4211 \quad$ History \& Literature I 3 hrs
MUH 4212 History \& Literature II GEP

## 4. Specialty Requirements:

(10 hrs)

## Piano

MUL 3400
MUL 3401
Piano Literature I
2 hrs
Piano Literature II
2 hrs
Ensemble
MUN 3453 Piano 2 hrs
Restricted Electives
Voice
FRE 1005 French Diction 1 hr
GER 1005 German Diction 1 hr

| ITA 1005 | Italian Diction | 1 hr |
| :--- | :---: | :---: |
| MUL 3603 | American/English Song Lit | 1 hr |
| MUL 3604 | German Song Literature | 1 hr |
| MUL 3605 | French Song Literature | 1 hr |
| Restricted Electives | 4 hrs |  |
| Woodwinds |  |  |
| Minor Ensemble MUN XXXX | 2 hrs |  |
| Woodwind Literature | 2 hrs |  |
| Restricted Electives | 6 hrs |  |
| Brass | 2 hrs |  |
| Minor Ensemble MUN XXXX | 2 hrs |  |
| Brass Literature | 6 hrs |  |
| Restricted Electives |  |  |
| Percussion | 2 hrs |  |
| Minor Ensemble MUN XXXX | 2 hrs |  |
| Percussion Literature | 6 hrs |  |
| Restricted Electives |  |  |
| Minor Ensemble MUN XXXX | 2 |  |

## 5. Restricted Electives (See above)

Any MUC, MUE, MUG, MUH, MUL, MUN, MUS, MUT courses numbered 3000 or higher.

## 6. Special Non-Course Requirements

MUS 1010 - Music Forum
Native UCF students must complete eight semesters of MUS 1010

Transfer students must take MUS 1010 each term they are enrolled at UCF

## Comprehensive Exams

- Students must take piano until they pass the Piano Proficiency exam - MVK 4960


## Comprehensive Exam, Music History - MUH 4963

- Satisfactory completion of a comprehensive examination in music history, to be taken after completing MUH 4212 and before enrolling in MUT 3571.


## Comprehensive Exams, Music Theory- MUT 2960, MUT 2961, MUT 2962

Completion, with at least an $80 \%$ score on each of the following components; Ear-Training, Sight-Singing, 4part-Writing, Musical Forms, Transposition, Analysis, and Counterpoint.

- Test is to be taken after completing MUT 2117 and before enrolling in MUT 3571.


## Major Ensemble Participation

- Selected from University Chorus, Symphony Orchestra, Concert Band, Wind Ensemble, and Marching Band. Four hours of Jazz Lab may be used as Major Ensemble credit.
- Ensemble assignment is by the ensemble directors

Transfer students must take any remaining major ensemble credits during separate semesters

- Native UCF students must take each of four major ensemble credits in a separate semester


## Minor Ensemble Participation

- If minor ensemble is taken at UCF, the two semester hours of credit must be spread over two separate semesters
- If minor ensemble credits are transferred to UCF, each remaining hour must be taken in a separate semester
- Minor ensembles include: Brass, Percussion, Piano, String, Vocal (except Opera Workshop), Woodwind, and Jazz Lab


## Recitals

BA students must complete three of their comprehensive examinations before auditioning for their terminal recital at the Junior level

Each BA student must perform one faculty-approved, 30 minute public recital at UCF

## 7. Departmental Exit Requirements

Earn a grade of "C" (2.0) or better in each Music course
Computer Competency met by CGS 1060C, or departmental examination

## 8. Foreign Language Requirements

(0-11 hrs)
Admission: Met by graduation requirement
Graduation: Three semesters or equivalent proficiency exam

## 9. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 10. University Minimum Exit Requirements

- A 2.0 UCF GPA
- 60 semester hours earned after CLEP awarded
- 48 semester hours of upper division credit completed
- 30 semester hours in regular courses completed at UCF
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: Music Education, Music (BM), Theatre

Related Minors: Music, Theatre

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- MUT 1111*, MUT 1112*: May use MUT 1121, MUT 1122. Note: Since these courses are three credits at some schools, the extra
credit transfers as a free elective.
- MUT 1241*, MUT 1242*:May use MUT 1221, MUT 1222, or MUT 1261, MUT 1262 or MUT 1271, MUT 1272.
- MUT 2116*, MUT 2117*: May use MUT 2126, MUT 2127. Note: Since these courses are three credits at some schools, the extra credit transfers as a free elective.
- MUT 2246*, MUT 2247*:May use MUT 2226, MUT 2227, or MUT 2266, MUT 2267, or MUT 2276, MUT 2277.
- MVK 1111, MVK 2121*: May use MVK 1112, MVK 2122 or MVK 1211, MVK 2221

MUSIC EDUCATION (B.M.E.)

College of Arts and Sciences
Department of Music, CNH 205A,
http://pegasus.cc.ucf.edu/~ucfmusic
E-mail: music@mail.ucf.edu
L. Eubank, 407-823-2869, Fax 407-823-3378

## Audition Requirements for Admission

Audition and demonstrate advanced proficiency by performing compositions representing a variety of musical periods.

- Memorization is required for pianists and vocalists
- Accompanists are provided by special request only
- Each candidate must bring his/her own audition music
- The department will only provide large instruments such as a tuba, string bass, or timpani for these auditions
- The audition will serve as a placement examination for accepted candidates
- Interview with Music Education faculty


## Admission Requirements for Upper Division Courses - Education

Each student must score at or above the 40th percentile of all college-bound persons tested on the American College Testing Program (ACT, score 20) or the Scholastic Aptitude Test (SAT, score 950) and have this score reported as part of their official academic record

Have a minimum overall GPA of 2.5
Satisfactorily complete EDG 4323 (Professional Teaching Practices)
Pass the College Level Academic Skills Test (CLAST)

Submit a formal junior student teaching application to the College of Education Student Internships Office. Must meet the College of Education's requirements for admission to Junior and Senior Year Student Teaching.

## Degree Requirements

NOTE: Music Education degree requirements are subject to change pending legislation on State Board of Education Rule Amendments on Teacher Preparation.

- Students who change degree programs and select this major must adopt the most current catalog.

Pass a written competency examination (Florida Teaching Competency Examination) administered by the Florida State Department of Education

Departmental Residency Requirement: at least 25 hours must be taken from the UCF Music department. In addition, music education students must complete their last two semesters of required performance, their recital, and their senior year student teaching while attending UCF.

- A minimum GPA of 2.5 is required in all courses attempted. Grades less than "B-" (2.75) are not acceptable in education or music education courses.
- Each student must perform a faculty-approved public recital (optional for students in the Elementary School Music Specialization)
- Students should consult with a departmental advisor for course selections
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II
SPC 1600C Fundamentals of Oral Communication 3 hrs
B. Cultural-Historical Foundations*

AMH 2010 U.S. History 1492-1877 3 hrs
AMH 2020 U.S. History 1877-Present 3 hrs
MUH 4212 History and Literature II 3 hrs

| C. Mathematical Foundations* | $(6 \mathrm{hrs})$ |  |
| :--- | :---: | :---: |
| MGF 1106 | Finite Mathematics | 3 hrs |
| Select one: |  |  |
| STA 1060C | Basic Statistics using MS Excel or | 3 hrs |
| STA 2014C | Principles of Statistics | 3 hrs |
| D. Social Foundations | $(6 \mathrm{hrs})$ |  |
| POS 2041 | American National Government | 3 hrs |
| PSY 2013 | General Psychology | 3 hrs |
| E. Science Foundations | $(6 \mathrm{hrs})$ |  |
| PSC 1121 $\quad$ Physical Science | 3 hrs |  |
| Select one: |  |  |

ANT 2511 The Human Species or 3 hrs
BSC 1005 Biological Principles 3 hrs

Note: See laboratory component under Section 2.

## 2. Common Program Prerequisites

(47 hrs)
A. Communications

ENC 1101 Composition I (9 hrs)

ENC 1102 Composition II GEP

SPC 1600C Fundamentals of Oral Communication GEP
B. Humanities
(6 hrs)
PHI 2010 Introduction to Philosophy 3 hrs
MUH 4212 History and Literature II GEP
C. Mathematics

MAC 1105 College Algebra
(9 hrs)
3 hrs
MGF 1106 Finite Mathematics

## GEP

One of the following (per GEP)
GEP
STA 1060C Basic Statistics using MS Excel or
AMH 2020 U.S. History 1877-Present GEP

GEP
(9 hrs + lab)
GEP
GEP

3 hrs

1 hr
BSC 1005L Biological Principles Laboratory or
GEO 1200L Physical Geography Laboratory or
PSC 1121L Physical Science Laboratory
F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations
EME 2040 Intro to Educational Technology 3 hrs
G. Diversity Courses
H. Other Program Prerequisites

MUT 1111 Music Theory IA
MUT 1112 Music Theory IB
MUT 2116 Music Theory IIA

3 hrs
(9 hrs)
3 hrs

GEP
(16 hrs)
2 hrs
2 hrs
2 hrs

MUT 2117
MUT 1241
MUT 1242
MUT 2446 Ear Training \& Sight Singing IIA
MUT 2447 Ear Training \& Sight Singing IIB 1 hr
MVK 1111 Class Piano I 1 hr
MVK 2121 Class Piano II 1 hr
MVK 3131 Class Piano III 1 hr
MVK 4141 Class Piano IV 1 hr
MVV 4960 Piano Proficiency 0 hr
MVx xxxx Performance 8 hrs
MUN xxxx Ensemble (four semesters) 4 hrs

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to 2000-01, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in Music Education take a series of core and specialization courses to prepare them to teach in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Music Education major's program and to integrate theory and practice in actual school settings. Throughout the Music Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

Emphasis requirements: In addition to core requirements, students select an emphasis in instrumental, choral, or elementary music, each requiring additional specialized courses.

Special non-course requirements:
Participation in ensembles and Music Forum
Comprehensive exams in music history, theory, and piano
A preprofessional interview
A 20 minute recital

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 5. Foreign Language Requirements

 (0-8 hrs)State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

- Achieve a minimum 2.5 GPA in all courses within the major.

Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

- Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.

A grade of "C" (2.0) or better in each music course.
A grade of "B" (3.0) or better in each performance, education, and music education course.

- Computer competency is met through EME 2040.


## 7. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 8. Total Semester Hours Required <br> To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.
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MUSIC PERFORMANCE (B.M.)

College of Arts and Sciences
Department of Music, CNH 205
http://pegasus.cc.ucf.edu/~ucfmusic
E-Mail: music@mail.ucf.edu
L. Eubank, 407-823-2869, Fax 407-823-3378

## Audition Requirements for Admission

- Each student must audition and demonstrate advanced proficiency by performing compositions representing a variety of musical periods
- Memorization is required for pianists and vocalists
- Accompanists are provided by special request only
- Each candidate must bring his/her own audition music
- The department will only provide large instruments such as a tuba, string bass, or timpani for these auditions
- The audition will serve as a placement examination for accepted candidates
- Composition track students must submit a portfolio of compositions representing works in small and/or large forms. Recordings of compositions are requested but not required.


## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
At least 78 hours of credit must be earned in music courses
Departmental Residency Requirement; at least 30 hours must be taken from the UCF Music department

- Each student must perform two faculty-approved public recitals
- Students should consult with a departmental advisor for course selection
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

(see General Education program for detailed information)
A. Communication Foundations
9 hrs
B. Cultural and Historical Foundations

Select one two-semester sequence 6 hrs
Select MUH 4212 History and Literature II 3 hrs
C. Mathematical Foundations 6 hrs

Select MGF 1106 Finite Mathematics
3 hrs
(may substitute a higher level math)
Prefer STA 1060C Statistics Using Excel
D. Social Foundations

3 hrs
E. Science Foundations

6 hrs

## 2. Common Program Prerequisites

MUT 1111* Music Theory IA
MUT 1112* Music Theory IB
MUT 1241* Ear Training \& Sight Singing IA
MUT 1242* Ear Training \& Sight Singing IB
MUT 2116* Music Theory IIA
MUT 2117* Music Theory IIB
MUT 2246* Ear Training \& Sight Singing IIA 1 hr
MUT 2247* Ear Training \& Sight Singing IIB
MUN XXXX Major Ensemble (four semesters)
(24 hrs)
2 hrs
2 hrs
1 hr
1 hr
2 hrs
2 hrs

1 hr
4 hrs
(See Specialty requirements for specific requirements and for the credits required)
(or proficiency)
*See Transfer Notes for possible substitutes

## 3. Core Requirements

## ( 18 hrs )

Piano proficiency 0 hrs (repeat MVK 3131-4141 Class Piano III-IV until passed)

MUS $1010 \quad$ Music Forum (eight semesters) 0 hrs
MUT 3571 20th Century Musical Analysis 3 hrs
MVB/MVK/MVP/
MVS/MVV/MVW Performance or composition (four semesters including two semesters of Level IV) $\quad 8 \mathrm{hrs}$

MUN XXXX Major Ensembles 2 hrs
MUG 3104 Basic Conducting 2 hrs
MUH 4211 History \& Literature I 3 hrs
MUH 4212 History \& Literature II GEP

## 4. Specialty Requirements:

 (39 hrs)
## Piano

MUL 3400 Piano Literature I 2 hrs
MUL 3401 Piano Literature II 2 hrs
Ensembles
Major Not required 0 hrs
Minor-MUN 3453 Piano Ensemble 4 hrs
Restricted Electives
31 hrs

## Piano Pedagogy

MUL 3400 Piano Literature I 2 hrs

| MUL 3401 Piano Literature II | 2 hrs |
| :---: | :---: |
| MVK 4640 Piano Pedagogy I | 1 hr |
| MVK 4641 Piano Pedagogy II | 1 hr |
| MUS 4401 Studio Teaching | 2 hrs |
| Ensembles |  |
| Major Not required | 0 hrs |
| Minor-MUN 3453 Piano Ensemble | 4 hrs |
| Restricted Electives | 27 hrs |
| Guitar |  |
| Ensembles |  |
| Major Not required | 0 hrs |
| Minor-MUN 3483 String Ensemble | 4 hrs |
| Restricted Electives | 35 hrs |
| Voice |  |
| FRE 1005 French Diction | 1 hr |
| GER 1005 German Diction | 1 hr |
| ITA 1005 Italian Diction | 1 hr |
| MVV 4640 Voice Pedagogy I | 1 hr |
| MVV 4641 Voice Pedagogy II | 1 hr |
| MUL 3603 Amer./English Song Literature | 1 hr |
| MUL 3604 German Song Literature | 1 hr |
| MUL 3605 French Song Literature | 1 hr |
| Ensembles |  |
| Major-MUN 3313 University Chorus | 8 hrs |
| Minor-MUN XXXX | 4 hrs |
| Restricted Electives | 19 hrs |
| All other instruments |  |

Ensembles

| Major-MUN XXXX | 4 hrs |
| :--- | :--- |
| Minor-MUN XXXX | 4 hrs |

Restricted Electives
31 hrs

## Composition

MUT 5381 Arranging and Composing Music 3 hrs
MUG 3302 Instrumental Conducting \& Materials 3 hrs
MUC 3311 MIDI Sequencing I 3 hrs
MUC 4441 MIDI Sequencing II 3 hrs
MUS 4347C Digital Notation 3 hrs
MUT 3170 Jazz Theory I 2 hrs
Ensembles
Major or Minor 4 hrs
Restricted Electives 22 hrs

## 5. Restricted Electives

(See above)

- Any secondary performance course not in area of major instrument or
- Any MUC, MUE, MUG, MUH, MUL, MUN, MUS, MUT courses numbered 3000 or higher.


## 6. Special Non-Course Requirements

MUS 1010 Music Forum

- Native UCF students must complete 8 semesters of MUS 1010
- Transfer students must take MUS 1010 each term they are enrolled at UCF


## Comprehensive Exams

- Students must take piano until they pass the Piano Proficiency exam - MVK 4960

Comprehensive Exam - Music History - MUH 4963
Satisfactory completion of a comprehensive examination in music history, to be taken after completing MUH 4212.

Completion, with at least an $80 \%$ score on each of the following components; Ear Training, Sight Singing, 4 part Writing, Musical Forms, Transposition, Analysis, and Counterpoint.

- Test is to be taken after completing MUT 2117, and before enrolling in MUT 3571.


## Major Ensemble Participation

- Selected from University Chorus, Symphony Orchestra, Con-cert Band, Symphonic Wind Ensemble, and Marching Band. Four hours of Jazz Lab may be used as Major Ensemble credit.
- Ensemble assignment is by the Ensemble directors.

Transfer students must take Major Ensemble during each of their remaining semesters
Native UCF students must take each of eight Major Ensemble credits in a separate semester: Composition students should take each of their four ensemble credits in a separate semester.

- Students taking a course in Performance must concurrently take a major ensemble appropriate to their principal instrument


## Minor Ensemble Participation

If Minor Ensemble is taken at UCF, the four semester hours of credit must be spread over at least three separate semesters

If Minor Ensemble credits are transferred to UCF, each remaining credit must be taken in a separate semester

- Minor Ensembles include: Brass, Percussion, Piano, String, Vocal (except Opera Workshop), Woodwind, and Jazz Lab


## Recitals

- Bachelors of Music students must complete their piano proficiency and all but one comprehensive examination before auditioning for their senior recital

Each student must perform two faculty-approved public recitals: a junior recital of 30 minutes length and a senior recital of 45 minutes length ( 30 minutes for Piano Pedagogy students). Composition majors must present original musical compositions by the student.

## 7. Departmental Exit Requirements

Earn a grade of "C" (2.0) or better in each Music course
Computer Competency met by CGS 1060C, or departmental examination

## 8. Foreign Language Requirements

 (0-8 hrs)Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam

## 9. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 10. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: Music Education, Music (BA), Theatre

Related Minors: Music, Theatre

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- MUT 1111*, MUT 1112*: May use MUT 1121, 1122. Note: Since these courses are three credits at some schools, the extra credit transfers as a free elective.
- MUT 1241*, MUT 1242*: May use MUT 1221, 1222, or MUT 1261, 1262 or MUT 1271, 1272.
- MUT 2116*, MUT 2117*: May use MUT 2126, 2127. Note: Since these courses are three credits at some schools, the extra credit transfers as a free elective.
- MUT 2246*, MUT 2247*:May use MUT 2226, 2227, or MUT 2266, 2267, or MUT 2276, 2277.
- MVK 1111, 2121*: May use 1112, 2122 or MVK 1211, 2221
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## NURSING (B.S.N.)

## A. BASIC PROGRAM

(For individuals who are not Registered Nurses)
College of Health and Public Affairs
HPA 220, 407-823-2744
Director: Elizabeth Stullenbarger-Galford
Undergraduate Coordinator: Patricia Leli
E-mail: pleli@pegasus.cc.ucf.edu
Web Address: http://www.cohpa.ucf.edu/nursing/

## Admission Requirements - LIMITED ACCESS

Acceptance to the university does not constitute admission to the upper division nursing program.
SEPARATE APPLICATION to the limited access program must be made directly to the School of Nursing prior to February 1 of the year admission is sought for the Orlando Campus and June 1 the prior year for January admission on the Brevard Campus

- UCF application must also be submitted by the program deadline
- Student must complete all general education, foreign language, admissions, and program prerequisites prior to the start of the program
- All applicants must have a minimum overall GPA of 2.5 , and complete all program prerequisite courses with a grade of " C " (2.0) or better

Graduates are eligible to take the licensing examination for registered nurses (NCLEX). The program is accredited by the National League for Nursing and approved by the Florida State Board of Nursing.

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog
- Students should consult with a college advisor or community college A.A. transfer advisor regarding completion of General Education requirements and the Common Program Prerequisites

Students should consult with a School of Nursing advisor for clarification of questions regarding
prerequisite requirements which cannot be answered by college advisors

- The courses designated in sections 1 and 2 below may be taken at a Florida Community College or other universities, and should be completed in the first 60 hours
- A minimum overall GPA of 2.5 and a minimum grade of "C" (2.0) in the nursing major courses are required for continuation and graduation from the Nursing Program

UCF Residency Requirement: 31 hours

- Any variation from the stated prerequisites must be approved in writing by the School of Nursing. Waiver forms are available in the School of Nursing office.


## 1. UCF General Education Program

A. Communication Foundations 9 hrs
B. Cultural Historical Foundations
C. Mathematical Foundations

MAC 1105
Select STA 2014C
D. Social Foundations

Select both SYG 2000 and PSY 2013*
Select ECO 2013 or ECO 2023 or POS 2041
E. Science Foundations:**

6 hrs
Select BSC 2010C
Select CHM 1032 (and lab)

* One of these courses is required to meet General Education requirements, but both are required program prerequisites.
** Science Foundation is 6 credit hours for General Education Program. However the nursing program prerequisite requires 4 CHM credits. To earn this, the student must take the CHM 1032 lab. This BSC course is needed as a course prerequisite for Anatomy and Physiology and Health Microbiology.


## 2. Common Program Prerequisites

PSY 2013 General Psychology**
SYG 2000 Sociology**

## (22 hrs)

GEP
3 hrschemistry course does not meet requirement.

## 3. Core Requirements

## ( 63 hrs )

NUR 3026 Therapeutic Interv. for Health Prof. 1 hr
NUR 3065 Health Assessment 3 hrs
NUR 3165 Nursing Research 3 hrs
NUR 3235 Promoting Physical \& Mental Health 5 hrs
NUR 3235L Clin Pract in Prom Phys/Mental Health 4 hrs
NUR 3616 Promoting Healthy Families 3 hrs
NUR 3616L Clinical Pract in Promot Healthy Fam 3 hrs
NUR 3617 Promoting Healthy Communities 3 hrs
NUR 3825 Role of the Professional Nurse 2 hrs
NUR 3198 Pathophysiology \& Pharmacolgy 5 hrs
NUR 4525 Nursing Intervention in Mental Illness 2 hrs
NUR 4525L Clinical Practice w/ Mentally Ill Client 1 hr
NUR 4636 Community as the Continuum of Care 3 hrs
NUR 4636L Clinical Pract in Comm.-Orient Nrsg 2 hrs
NUR 4745 Nursing Care of Clients w/ Acute Ill. 4 hrs

| NUR 4745L | Clinical Practice in Acute Illness | 4 hrs |
| :--- | :--- | :---: |
| NUR 4827 | Leadership \& Management Principles | 3 hrs |
| NUR 4945L | Directed Nursing Practice | 4 hrs |
| NUR 4835 | Role Transition | 2 hrs |
| NUR 4837 | Health Care Issues, Policy, \& Econ | 3 hrs |
| NUR 4XXX | Nursing Elective | 3 hrs |

Any variation from the above must be approved by the School of Nursing.

## 4. Upper Division Restricted Electives

(3 hrs)
Nursing Elective:
Any School of Nursing Elective

## 5. Departmental Continuation and Exit Requirements

Completion of all courses in major with a grade of " C " (2.0) or better

- UCF GPA of 2.5 or above

School of Nursing GPA of 2.5 or above

## 6. Electives

None

## 7. Foreign Language Requirements

Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 121 hours

Related Programs: Health Services Administration, Social Work, all health programs

Related Minors: Gerontology Certificate, Psychology, Health Sciences, Health Services Administration

## Transfer Notes:

Examples of Community College Equivalent Courses - Prerequisites
General Psychology (PSY X012) or any General
Psychology course
3
General Sociology (SYG 2000) or any Intro to
Sociology course
3
Statistics (STA 2014C or 2023) or any Statistics course 3
General Chemistry (CHM 1032 or any other comprehensive chemistry course w/lab)* 4

Human Anatomy and Physiology I \& II
w/lab (BSC 2093/2094) or (BSC X085/X086) 6-8
General Microbiology (MCB 2013C) (MCB X010C) w/lab or any Microbiology course w/lab 4

Developmental Psychology (DEP 2004) or any Human
Growth \& Development Across Life Span course 3
Human Nutrition (HUN 1201) or any Human Nutrition course
*The first semester of a two semester general chemistry course does not meet requirement.
NOTE: A grade of " C " (2.0) or better is required in all prerequisite courses.

## Honors

Honors Option Requires:

- Completion of a three credit directed readings course
- Completion of a three credit thesis course
- Open to students with a minimum 3.5 GPA in Nursing
- Minimum cumulative UCF 3.2 GPA
- Completion of 60 semester hours of college credit, including 12 graded upper division hours at UCF


## Tentative Course Schedule for Entering Freshmen

Freshman Year


| Summer | $\mathbf{6}$ hrs |
| :--- | ---: |
| HUN 3011 | 3 |
| PSY 2013 | 3 |

Sophomore Year
Fall
POS 2041 or ECO 2013
EUH 2000 or HUM 2211
or AMH 2010
PCB 3703C
$13 \mathrm{hrs} \quad$ Spring 13 hrs
3 EUH 2001 or HUM 2230
3
3 or AMH 2020
MCB 2005C
4 SPC 1600C

| Summer | 8 hrs (if not satisfied in high school) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (Foreign Lang I) |  |  |  |  |  |
| (Foreign Lang II) |  |  |  |  |  |
| Junior Year |  |  |  |  |  |
| Fall | 15 hrs | Spring | 14 hrs |  |  |
| NUR 3825 | 2 | NUR 3198 | 5 |  |  |
| $\begin{aligned} & \text { NUR 3065 } \\ & \text { 3235L } \end{aligned}$ | 3 | NUR 3235 | 5 NUR 3026 | 1 | NUR |
| NUR 3617 | 3 |  |  |  |  |
| NUR 3616 | 3 |  |  |  |  |
| NUR 3616L |  |  |  |  |  |

Summer A
NUR 3165
NUR 3xxx Elective

6 hrs
3

3

Senior Year

Fall
NUR 4745
NUR 4745L
NUR 4525
NUR 4525L
$14 \mathrm{hrs} \quad$ Spring $\quad 14 \mathrm{hrs}$
4 NUR 4835
4 NUR 4636
2 NUR 4636L
1 NUR 48373

## Other

Information about tuition, fees, and length of nursing programs can be obtained from the National League for Nursing Accrediting Commission, 61 Broadway, New York, NY 10006. (800) 669-1656, ext. 153.


NURSING (B.S.N.)

## B. RN TO BSN PROGRAM

(Completion program for individuals who are RNs licensed in the State of Florida)

## College of Health and Public Affairs

HPA 220, 407-823-2744
RN to BSN Coordinator: Linda Hennig
E-mail: lindah@mail.ucf.edu
Web Address: http://www.cohpa.ucf.edu/nursing/

## Admission Requirements - LIMITED ACCESS

Acceptance to the university does not constitute admission to the upper division nursing program. SEPARATE APPLICATION to the limited access program must be made directly to the School of Nursing. All applicants must have:
a minimum overall GPA of 2.5
completion of all program prerequisite courses with at least a grade of "C" $(2.0)$ or better current RN License in state of Florida

- Statistics course with grade of "C" (2.0) or better prior to NUR 3165


## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog
- Students should consult with a college advisor or community college A.A. transfer advisor regarding completion of General Education Program requirements
- Students should consult with a School of Nursing advisor for clarification of questions regarding prerequisite requirements which cannot be answered by college advisors
- The courses designated in sections 1 and 2 below may be taken at a Florida Community College or other universities and should usually be completed in the first 60 hours
- A minimum overall GPA of 2.5 and a minimum grade of "C" (2.0) in prerequisite and major courses are required for admission to, continuation in and graduation from the Nursing Program
- UCF Residency Requirement: 30 hours
- The courses designated in sections 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
C. Mathematical Foundations

MAC 1105
Select STA 2014C or STA 2023
D. Social Foundations

Select SYG 2000 or PSY 2013
Select one: ECO 2013 or ECO 2023 or POS 2041
E. Science Foundations:

Student must complete all general education and foreign language admissions requirements prior to NUR 4084. If completing an A.A. to fulfill General Education requirements, it must be awarded prior to the last semester at UCF.

## 2. Common Program Prerequisites

Statistics course, three hours, with a grade of "C" (2.0) or better required prior to NUR 3165

## 3. Core Requirements

NUR 3809 Transitional Concepts in Nursing I 3 hrs
NUR 3065 Health Assessment 3 hrs
NUR 3165 Nursing Research/Critical Inquiry 3 hrs
NUR 4084 Transitional Concepts in Nursing II 3 hrs
NUR 4636 Community as Continuum of Care 3 hrs

NUR 4636L Clin Prac in Comm-Oriented Nursing 2 hrs
NUR 4827 Leadership and Management Principles 3 hrs
NUR 4837 Health Care Issues, Policy, \& Econ 3 hrs
NUR 4945L Directed Nursing Practice 4 hrs
Validation Credit
28 hrs
4. Upper Division Restricted Elective

NUR XXXX Any Nursing Elective 3 hrs

## 5. Departmental Exit Requirements

Completion of all courses in major with a grade of " C " (2.0) or better

- UCF GPA of 2.5 or above
- School of Nursing GPA of 2.5 or above

6. Electives

## 7. Foreign Language Requirements

 (0-8 hrs)Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Health Services Administration, Social Work, All health programs

Related Minors: Gerontology Certificate, Health Sciences, Health Services Administration, Psychology

## Sample Plan of Study

Semester I Semester II

NUR3809 3
NUR 30653
NUR 3165
NUR 4827
3

Semester III
NUR 4084
3
NUR XXXX (elective) 3

Semester IV
NUR 4636
NUR 4636L
3
2

## Semester V

NUR 4837
3
NUR 4945L
4
*Elective may be taken at any point.
The following courses cannot be taken out of sequence.
Progression requirements:
Prior to NUR 3809:
RN status or eligible to take NCLEX.
Prior to NUR 3165:
Complete NUR 3809 and Statistics course with grade of "C" (2.0) or better.

Prior to NUR 4084 :
Be admitted to the nursing program
Complete general education requirements or A.A. from a Florida state community college or university (SUS)

## - Complete CLAST

- Complete Foreign language admission requirement
- Validation exams or current professional work as RN or pass the NCLEX within the last two years

Prior to NUR 4636 and NUR 4636L:
Complete NUR 4084
Prior to NUR 4945L:
Complete NUR 4636 and NUR 4636L

## Other

Information about tuition, fees, and length of nursing program can be obtained from the National League for Nursing Accrediting Commission, 61 Broadway, New York, NY 10006. (800) 669-1656, ext. 153.

Program offered in Orlando and at branch campuses of Daytona and Brevard and Leesburg (Lake Sumter).

The RN-BSN coursework is also offered via the internet. Some on- campus labs and clinical practica are required. For further information access http://www.cohpa.ucf.edu/nursing

NURSING (B.S.N.)

## C. RN TO MSN OPTION

College of Health and Public Affairs
HPA 220, 407-823-2744
Director: Elizabeth Stullenbarger-Galford
Web Address: http://www.cohpa.ucf.edu/nursing/
Accelerated program for students who are licensed as an RN in the State of Florida and meet general education requirements, prerequisities, and required GPA.

Available for all tracks in the graduate program. Nursing Leadership and Management, Family Nurse Practitioner, Adult Nurse Practitioner, Pediatric Nurse Practitioner, and Clinical Nurses Specialist. (See UCF Graduate Catalog for current offerings.) Up to 15 credit hours will be applied towards meeting requirements of both BSN and MSN programs.

## Admission Requirements - LIMITED ACCESS

Acceptance to the university does not constitute admission to the accelerated RN-MSN program. SEPARATE APPLICATION to this limited access program must be made. Contact the School of Nursing or visit our website for application materials. All applicants must meet the following criteria:

- Graduate of a state-approved or accredited associate degree or diploma nursing program
- Licensure as an RN in the State of Florida
- Completion of UCF general education requirements or an AA degree from a state of Florida school, including CLAST
- Completion of prerequisites for the RN-BSN nursing program (undergraduate statistics course)
- Minimum cumulative GPA of 3.0
- Admitted to UCF undergraduate program


## Interim Requirements:

Completion of the GRE by the end of the first semester in the program.

Admission Requirements for Graduate Nursing Phase: (To be met during the semester the BSN is awarded)

Accepted as a student into the upper division/professional phase at the UCF School of Nursing
Completion of all UCF School of Nursing coursework to date with a minimum GPA of 3.0
A minimum combined GRE score of 900 on the verbal/quantitative exams
An updated resume
Three references

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog
- Students should consult with a college advisor or community college A.A. transfer advisor regarding completion of General Education requirements and the Common Program Prerequisites
- Students should consult with a School of Nursing advisor for clarification of questions regarding prerequisite requirements which cannot be answered by college advisors
- The courses designated in sections 1 and 2 below may be taken at a Florida Community College or other universities
- A minimum overall GPA of 3.0 and a minimum grade of "C" (2.0) in prerequisite and upper division courses are required for admission in the major. Graduate school policies apply to graduate course work and degree requirement.
- UCF Residency Requirement: 30 hours
- The BSN is awarded after completion of 60 hours including specified courses

The MSN is awarded after program completion
The courses designated in sections 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours

## BSN Curriculum Changes for the RN to MSN Option:

An individualized plan of study is developed for each student admitted to the RN to MSN option.

- Students may take NUR 4836, Professional Development Seminar, to meet the requirements of NUR 4084, Transitional Concepts of Nursing II.
- Students may take NGR 5800, Nursing Theory/Research I, instead of NUR 3165, Nursing Research, if they have taken NUR 4836. The credits for this course are applied to both the BSN and

MSN programs.

- Students pursuing the MSN in the Nursing Leadership and Management Track may take the following courses:
- NUR 4838L, Directed Practice in Nursing Administration (for NUR 4954L, Directed Nursing Practice)

NGR 5720, Organizational Dynamics (for NUR 4827, Leadership and Management Principles)
NGR 5871, Health Care Informatics (for nursing elective)
NGR/HSA XXXX, Graduate elective in area of concentration (e.g., nursing, health services administration for nursing elective)

- Students pursuing the MSN in the Family/Adult Nurse Practitioner or Clinical Nurse Specialist tracks may take the following courses:
- NGF 5003C/L, Advanced Health Assessment, Health Promotion and Diagnostic Reasoning (for NUR 4954L, Directed Nursing Practice and undergraduate nursing elective)
- NGR 5141, Pathophysiology (for undergraduate nursing elective)
- NGR XXXX, Graduate elective in area of concentration


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
C. Mathematical Foundations

MAC 1105
Select STA 2014C
D. Social Foundations

Select SYG 2000 or PSY 2013
Select one: ECO 2013 or ECO 2023 or POS 2041
E. Science Foundations:

Select BSC 2010C
Select CHM 1032

## 2. Common Program Prerequisites

6 hrs

## 3. Core Requirements (Sample for Track in Family Nurse Practitioner

## Courses BSN

NUR 3065 Health Assessment 3 hrs
NUR 3809 Trans. Concepts in Nursing I 3 hrs
NUR 4636C Community as the Continuum of Care 3 hrs
NUR 4636L Clinical Practice in the Community 2 hrs
NUR 4827 Leadership/Management Principles 3 hrs
NUR 4836 Professional Development Seminar 3 hrs
NUR 4837 Health Care Issues, Policy, \& Econ. 3 hrs
Validated credit for previous nursing courses 28 hrs

## Courses Shared BSN/MSN

NGR 5800 Theory/Research I 4 hrs
NGR 5003C/L Adv. Health Assessment, Promotion
\& Diagnostic Reasoning (Practicum) 5 hrs
NGR 5141 Pathophysiology (undergrad elective) 3 hrs
NGR 5XXX Graduate Elective 3 hrs

## Courses MSN

NGR 5801 Research II/Statistics 4 hrs
NGR 6192 Pharmacology 3 hrs
NGR 6240C Advanced Practice Nursing: Primary
Care for Adults and Communities 6 hrs
NGR 6334C Advanced Practice Nursing: Children,
Adolescents, and Families 6 hrs
NGR 6941 Advanced Practice Practicum 6 hrs

Nursing I 1 hr
NGR 5746 Roles \& Issues in Advanced Practice
Nursing II 1 hr
NGR 5745 Roles \& Issues in Advanced Practice
Nursing III
NGR 6971 Thesis (or Research Scholarly Work) 3-6 hrs

## 4. Upper Division Restricted Elective

## 5. Departmental Exit Requirements

Completion of all courses in major with a grade of "C" (2.0) or better

- UCF GPA of 2.5 or above

School of Nursing GPA of 2.5 or above
6. Electives
none

## 7. Foreign Language Requirements

Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 8. University Minimum Exit Requirements

(For students exiting after earning BSN.)
A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
A maximum of 45 hrs of extension, correspondence, CLEP, Credit by Exam and Armed Forces

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required BSN <br> 120 hours

Related Programs: Health Services Administration, all health programs

Related Minors: Gerontology Certificate, Health Sciences, Health Services Administration, Psychology

## Other

Information about tuition, fees, and length of nursing program can be obtained from the National League for Nursing Accrediting Commission, 61 Broadway, New York, NY 10006. (800) 669-1656, ext. 153.
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NURSING (B.S.N.)

## AS TO BSN TRACK

(Completion program for individuals who have a statewide articulated AS Nursing degree from a Florida public community college)

## College of Health and Public Affairs

HPA 220, 407-823-2744
Undergraduate Coordinator: Linda Hennig
E-mail: lindah@mail.ucf.edu
Web Address: http://www.cohpa.ucf.edu/nursing/

## Admission Requirements - Limited Access

Acceptance to the university does not constitute admission to the upper division nursing program.
SEPARATE APPLICATION to the limited access program must be made directly to the School of Nursing. All applicants must have:

- a minimum overall GPA of 2.5
- Completion of a Statewide A.S. in Nursing from a Florida Public Community College which is composed of 72 hours of course work, including at least 18 hours of transferable general education courses

A minimum overall GPA of 2.5
current RN License in state of Florida
Statistics course with grade of "C" (2.0) or better prior to NUR 3165

## Degree Requirements

Completion of all common program prerequisite courses with at least a grade of "C" (2.0) or better

Students should consult with a School of Nursing advisor for clarification of questions regarding prerequisite requirements which cannot be answered by college advisors

- The courses designated in sections 1 and 2 below may be taken at a Florida Community College or other universities and should usually be completed in the first 60 hours
- A minimum overall GPA of 2.5 and a minimum grade of "C" (2.0) in prerequisite and major courses are required for admission to, continuation in, and graduation from the Nursing Program

UCF Residency Requirement: 32 hours

## 1. UCF General Education Program

( 18 hrs )
Students will complete 18 hours of selected general education courses. The specific courses will be determined in coordination with 18 hours of general education courses completed as part of the articulated A.S.

Student must complete all general education and foreign language admissions requirements prior to NUR 4084. Students completing the General Education requirements at a Florida community college, must complete those courses prior to their last 30 hours at UCF.

## 2. Common Program Prerequisites

Statistics course, three hours, with a grade of "C" (2.0) or better required prior to NUR 3165
Other courses may be necessary if not completed as part of the AS degree

## 3. Core Requirements

NUR 3809 Transitional Concepts in Nursing I 3 hrs
NUR 3065 Health Assessment 3 hrs
NUR 3165 Nursing Research/Critical Inquiry 3 hrs
NUR 4084 Transitional Concepts in Nursing II 3 hrs
NUR 4636 Community as Continuum of Care 3 hrs
NUR 4636L Clin Prac in Comm-Oriented Nursing 2 hrs
NUR 4827 Leadership and Management Principles 3 hrs
NUR 4837 Health Care Issues, Policy, \& Econ 3 hrs
NUR 4945L Directed Nursing Practice 4 hrs
4. Restricted Elective(3 hrs)
NUR XXXX Any Nursing Elective ..... 3 hrs

## 5. Departmental Exit Requirements

Completion of all courses in major with a grade of " C " (2.0) or better

- UCF GPA of 2.5 or above

School of Nursing GPA of 2.5 or above
6. Electives
none

## 7. Foreign Language Requirements

Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation: none

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
32 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, and the CLAST


## Total Semester Hours Required

128 hours

Related Programs: Health Services Administration, Social Work, all health programs

Related Minors: Gerontology Certificate, Health Sciences, Health Services Administration, Psychology

The following courses cannot be taken out of sequence.
Progression requirements:
Prior to NUR 3809:
RN status or eligible to take NCLEX.

Prior to NUR 3165:
Complete NUR 3809 and Statistics course with grade of "C" (2.0) or better.
Prior to NUR 4084 :
Be admitted to the nursing program
Complete general education requirements or A.A. from a Florida state community college or university (SUS)

## - Complete CLAST

- Complete Foreign language admission requirement
- Validation exams or current professional work as RN or pass the NCLEX within the last two years

Prior to NUR 4636 and NUR 4636L:
Complete NUR 4084
Prior to NUR 4945L:
Complete NUR 4636 and NUR 4636L

## Other

Information about tuition, fees, and length of nursing program can be obtained from the National League for Nursing Accrediting Commission, 61 Broadway, New York, NY 10006. (800) 669-1656, ext. 153. Program offered in Orlando and at branch campuses of Daytona, Brevard, Leesburg (Lake Sumter), and via the Internet.

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Orlando, Florida
(407) 823-2000

ORGANIZATIONAL COMMUNICATION (B.A.)

## College of Arts and Sciences

Nicholson School of Communication, COM 258, 407-823-2852,
http://www.cas.ucf.edu/communication
E-mail: communication@ucf.edu
K. Phillip Taylor

## Admission Requirements

Application to the School of Communication needed. Before applying, student must complete STA 2023 with a "C" (2.0) or better.

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog
- Students need to apply to the School office to enter this major
- Co-op or internship credit can not be used in this major
- Students should consult with a departmental advisor
- School Residency Requirement consists of at least 24 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Nicholson School of Communication

Students electing both a major and minor in the School must take the minor courses in excess of the 120 hours required for graduation

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours
A. Communication Foundations
Select ENC 1101 \& 1102 Composition ..... 6 hrs
Select SPC 1600C Fund Oral Communication ..... 3 hrsB. Cultural and Historical Foundations 9 hrs
Select MGF 1106 Finite Mathematics ..... 3 hrs9 hrs
C. Mathematical Foundations
Select STA 2023 Statistical Methods ID. Social Foundations
(may substitute a higher level math)6 hrsE. Science Foundations 6 hrs6 hrs

2. Common Program Prerequisites ..... (0 hrs)
XXX XXXX 18 hrs of any GEP courses ..... GEP
3. Additional Program Prerequisites ..... (12 hrs)Must be completed with a "C" (2.0) or better before Core Courses can be takenSTA $2023 \quad$ Statistical Methods I 3 hrsCOM 3301 Communication \& Human Relations 3 hrsCOM 3311 Communication Research Methods 3 hrsENC 3XXX Professional Writing 3 hrs

## 4. Specific Program Requirements

Select one of the following
CGS 2100C Computer Fundamentals for Business
CGS 2585C Desktop/Internet Publishing
CGS 3175 Internet Applications
PUR 4110C Public Relations Publications

3 hrs

| 5. Core requirements | (21 hrs) |  |
| :--- | :--- | ---: |
| COM 3110 | Business and Professional Comm | 3 hrs |
| COM 3120 | Organizational Communication | 3 hrs |
| COM 4461 | Intercultural Communication | 3 hrs |
| COM 4906 | Comm Research Project |  |
| or | or | 3 hrs |
| COM 4941 | Internship |  |
| SPC 3425C | Group Interaction \& Decision Making | 3 hrs |
| SPC 3445 | Leadership | 3 hrs |
| COM 4462 | Conflict Management | 3 hrs |

## 6. Upper Division Restricted Electives

(9 hrs)
A minimum of six upper division credit hours selected from courses in Business Law, Management, Marketing, or Hospitality Management.

## 7. School Exit Requirements

Achieve a "C" (2.0) or better grade in required UCF Communication courses

- To avoid delaying graduation, you must request a review of requirements before registering for your last term
- Computer Competency met by a Computer Science course or by departmental assessment


## 8. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement
Graduation: One year or equivalent proficiency exam

## 9. Electives

(variable)
Select primarily from upper level courses, with school advisors approval. May be taken outside the School of Communication.

## 10. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Interpersonal Communication

Related Minors: Interpersonal Communication

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet School requirements.
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.
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PHILOSOPHY (B.A.)

## College of Arts and Sciences

Philosophy Department, CNH 411,
http://www.cas.ucf.edu/philosophy

## E-mail: philosophy@ucf.edu

Shelley Park, 407-823-2273
Admission Requirements
none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Students must earn at least a "C" (2.0) in each required course
- Co-op or internship credit can not be used in this major without prior departmental approval
- Students should consult with a departmental advisor
- Departmental Residency Requirement consists of at least 15 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Philosophy Department
- At least 21 of the 27 Core hours must be upper division

Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations

Select a two course sequence from listing
Select PHI 2010 Intro to Philosophy

| C. Mathematical Foundations |  |  |
| :---: | :---: | :---: |
| Select $M G$ <br> (may subs | 1106 Finite Mathematics <br> te a higher level math) | 3 hrs |
| Prefer STA | 060C Statistics Using Excel | 3 hrs |
| D. Social F | ndations | 6 hrs |
| E. Science | undations | 6 hrs |
| 2. Commo | Program Prerequisites | none |
| 3. Core re | irements* | (27 hrs) |
| Philosoph | l Foundations: | (12 hrs) |
| Select at least three hours from each group: |  |  |
| Reasoning |  |  |
| PHI 2011 | Philosophical Reasoning |  |
| PHI 2101 | Critical Thinking |  |
| PHI 2100 | Formal Logic I |  |
| Ethics |  |  |
| PHI 3670 | Ethical Theory |  |
| Knowledge |  |  |
| PHI 3320 | Philosophy of Mind |  |
| PHI 4341 | Ways of Knowing |  |
| PHI 4300 | Theories of Knowledge |  |
| Disciplinary and Interdisciplinary Knowing |  | (6 hrs) |
| Select two courses: |  |  |
| PHI 3400 | Philosophy of Law |  |
| PHI 3700 | Philosophy of Religion |  |
| PHI 4400 | Philosophy of Science |  |
| PHI 4420 | Philosophy of Social Science |  |

PHI 3451 Philosophy of Psychology
Applications
(9 hrs)

Select three courses:
PHI 3033 Philosophy, Religion, and the Environment
PHI 3601 Practical Wisdom
PHI 3640 Environmental Ethics
PHI 3941 Philosophy Practicum
PHI 4931 Philosophy in the News
PHI 4633 Ethics and Biological Science
PHI 4804 Critical Theory
PHM 3100 Freedom and Justice
PHM 3123 Feminist Theory
*Appropriate Special Topics in Philosophy may be substituted for some core courses with prior approval by Departmental advisor.

## 4. Upper Division Restricted Electives

Select six hours of approved courses in Philosophy or related areas, subject to approval by Departmental advisor.

## 5. Honors in the Major

Students considering graduate school in philosophy are strongly encouraged to take Honors in the Major. Requirements are as follows:

## Philosophical Foundations

Same requirements as for regular majors but must include PHI 2100 Formal Logic I

## Disciplinary and Interdisciplinary Knowing

Same requirements as for regular majors

## Applications

Same requirements as for regular majors

Choose two of the following:
PHH 3100 Ancient Philosophy
PHH 3200 Medieval Philosophy
PHH 3XXX Modern Philosophy
PHH 3XXX Contemporary Philosophy

## Honors Thesis

PHI 4903H Honors Directed Reading 3 hrs
PHI 4970H Honors Thesis 3 hrs
Additional Requirements:
Application and admission through the Philosophy Honors Coordinator
Fulfill University requirements for Honors in the Major
Earn a "B" (3.0) or better in both PHI 4903H and PHI 4970H
Maintain UCF GPA of at least 3.2 and a Philosophy GPA of at least 3.5
Successful completion and oral defense of Honors thesis

## 6. Departmental Exit Requirements

- Either PHI 4970H: Honors Thesis (3 hrs) or organization and submission of a portfolio (PHI 4906 - 1 hr ) of one's work in philosophy to a Departmental committee for approval prior to graduation.
- Earn a "C" (2.0) or better in each upper division required course.
- Computer Competency met by PHI 4970H, PHI 4906, or by STA 1060C.
- To avoid delaying graduation, you must request a review of requirements prior to registering for your last term.


## 7. Foreign Language Requirements

## (0-8 hrs)

Admission: Met by graduation requirement.
Graduation: Two semesters or equivalent proficiency exam. Majors who are contemplating graduate school should complete two years of a foreign language, preferably one functional in their area of proposed graduate interest.

Select primarily from upper level courses, with departmental advisor's approval. May be outside the department.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

## Related Programs: Humanities

Related Minors: Environmental Studies, Humanities, Philosophy, Religious Studies

## Transfer Notes:

Grades below "C" (2.0) from other institutions do not meet departmental requirements
Courses taken at community colleges do not substitute for Upper Division courses

- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

PHYSICAL EDUCATION (B.S.)

## College of Education

Department of Human Services and Wellness, ED 214, 407-823-2598

Coordinator: Patricia Higginbotham, ED311, 407-823-2050
E-mail: higginbp@mail.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements:

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university

Have a minimum 2.5 overall GPA
Pass four parts of the CLAST examination (no alternatives are accepted)

- Complete prerequisite courses


## Degree Requirements:

Students should consult with an advisor.

- The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours.


## 1. UCF General Education Program

A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II
(36 hrs)
(9 hrs)
3 hrs
3 hrs
B. Cultural-Historical Foundations* (9 hrs)

AMH 2010 U.S. History 1492-1877 3 hrs
AMH 2020 U.S. History 1877-Present 3 hrs
PHI 2010 Introduction to Philosophy 3 hrs
C. Mathematical Foundations* (6 hrs)

MGF 1106 Finite Mathematics 3 hrs
Select one:
STA 1060C Basic Statistics using MS Excel or 3 hrs
STA 2014C Principles of Statistics 3 hrs
D. Social Foundations (6 hrs)

POS 2041 American National Government 3 hrs
PSY 2013 General Psychology 3 hrs
E. Science Foundations* (6 hrs)

PSC 1121 Physical Science 3 hrs
Select one:
ANT 2511 The Human Species or 3 hrs
BSC 1005 Biological Principles 3 hrs
Note: See laboratory component under Section 2.

## 2. Common Program Prerequisites

(28 hrs)
A. Communications (9 hrs)

ENC 1101 Composition I
GEP
ENC 1102 Composition II GEP
SPC 1600C Fundamentals of Oral Communication GEP
B. Humanities

PHI 2010 Introduction to Philosophy
Select one: (6 hrs) GEP 3 hrs

ARH 2050 The History of Art I or
ARH 2051 The History of Art II or
MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
(9 hrs)
3 hrs

## GEP

GEP
(12 hrs) AMH 2010
U.S. History
D. Social Science/History GEP

AMH 2020 U.S. History 1877-Present
POS 2041 American National Government
PSY 2013 General Psychology
E. Science

PSC 1121 Physical Science
ZOO 3736C Human Anatomy w/Lab
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations
EME 2040 Intro to Educational Technology
G. Diversity Courses
H. Other Program Prerequisites

PET 2622 Human Injuries
(9 hrs) 3 hrs 3 hrs 3 hrs GEP (9 hrs) 3 hrs

PEO 2011 Team Sports
PEO 2031 Indiv. Sports and Leisure Activities 3 hrs

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to 2000-01, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in Physical Education take a series of core and specialization courses to prepare them to teach Physical Education in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Physical Education major's program and to link theory to practice in actual school settings. Throughout the Physical Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 5. Foreign Language Requirements

State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

- Achieve a minimum 2.5 GPA in all courses within the major.
- Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.
- Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.


## 7. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 8. Total Semester Hours Required

## To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.

[^7]PHYSICS (B.S.)

## College of Arts and Sciences

Physics Department, MAP 310, 407-823-2325,
http://www.physics.ucf.edu
E-mail: physics@ucf.edu
Chair: Brian Tonner, 407-823-2325
Coordinator: Jack Brennan

Physics majors can select from five distinct tracks to earn their physics degree, as described below in Section 4, Specialization. While the various tracks share a common core of courses, they also enable students to prepare specifically for certain career paths. Students should consult their faculty advisors when deciding between these tracks.

## Admission Requirements <br> none

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
Grades below "C" (2.0) in any required physics or mathematics courses are not acceptable; they must be repeated with a higher grade

- Departmental Residency Requirement consists of at least 15 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Physics
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

(Note: Certain courses must be selected in the GEP for this major which brings the GEP hours above
A. Communication Foundations

Select ENC 1101 English Composition I 3 hrs
Select ENC 1102 English Composition II 3 hrs
Prefer SPC 1016 Oral Comm for Tech Prof 3 hrs
B. Cultural and Historical Foundations 9 hrs
C. Mathematical Foundations

Select MAC 2281 Calculus for Sci \& Eng I 4 hrs
Select COP 2200 Computer Programming 3 hrs
D. Social Foundations 6 hrs
E. Science Foundations

Select PHY 2048 \& L Physics for Sci \& Eng I
(PR:MAC 2281)
Select a GEP course from Science Section 2
2. Common Program Prerequisites
CHM 2045C* Chem Fund I 4 hrs

CHM 2046 \& L Chem Fund II with lab 4 hrs
MAC 2281 Calculus for Sci \& Eng I GEP
MAC 2282 Calculus for Sci \& Eng II 4 hrs
MAC 2283 Calculus for Sci \& Eng III 4 hrs
PHY 2048 \& L Physics Engr \& Sci I \& Lab GEP
PHY 2049 \& L Physics Engr \& Sci II \& Lab 4 hrs
*See Transfer Notes for possible substitutes

## 3. Core requirements (all tracks)

MAP 2302 Differential Equations
PHY $3101 \quad$ Physics Engr \& Sci III 3 hrs

3 hrs

| PHZ 3113 | Intro to Theoretical Methods of Physics 3 hrs |  |
| :--- | :--- | :---: |
| PHY 3221 | Mechanics I | 3 hrs |
| PHY 3503 | Thermal and Statistical Physics | 3 hrs |
| PHY 3323 | Electricity and Magnetism I | 3 hrs |
| PHY 4324 | Electricity and Magnetism II | 3 hrs |
| PHY 4604 | Wave Mechanics I | 3 hrs |
| PHY 4605 | Wave Mechanics II | 3 hrs |
| PHY 4912 | Directed Independent Research | 3 hrs |
| (should be done in the area of specialization) |  |  |
| Laboratory requirements |  |  |
| PHY 3802L | Intermediate Physics Lab |  |
| Select one of the following | 3 hrs |  |
| PHY 3752C | Physics of Sci Instruments | 3 hrs |
| PHY 3722C | Physics Laboratory: Electronics |  |

## 4. Specialization: select one specialization

### 4.1 General Physics Specialization

PHY 4803L Advanced Physics Lab
Upper Division Restricted Electives
PHY, PHZ, or AST courses
Directed Electives
9 hrs
Courses at a 3000 level or higher, approved by the
Physics Department. Courses must be chosen in
Physics, Mathematics, Computer Science, or
Engineering.

### 4.2 Materials Physics Specialization

Choose one lab from:

Choose nine hours from:

| EEL 3306 | Semiconductor Devices | 3 hrs |
| :--- | :--- | :---: |
| EGN 3365 | Structure and Properties of Materials | 3 hrs |
| EMA 4413 | Electronic Properties of Materials | 3 hrs |
| CHM 3411L | Physical Chemistry Laboratory | 2 hrs |
| PHZ 5405 | Condensed Matter Physics | 3 hrs |
| EEL 5352 | Semiconductor Mat \& Device Char | 3 hrs |
| Directed Electives | 6 hrs |  |

Courses at a 3000 level or higher, approved by the Physics Department. Courses must be chosen in Physics, Mathematics, Computer Science, or Engineering.

### 4.3 Optics and Lasers Specialization

PHY 4424L Optical Physics Laboratory
PHY $4424 \quad$ Physical Optics 3 hrs

Choose six hours from:

| EEL 4440 | Optical Engineering | 3 hrs |
| :--- | :--- | :---: |
| PHY 4445 | Lasers | 3 hrs |
| OSE 5412 | Fund. of Optoelectronic Devices | 3 hrs |
| Directed Electives | 6 hrs |  |

Courses at a 3000 level or higher, approved by the
Physics Department. Courses must be chosen in Physics, Mathematics, Computer Science, or Engineering.
4.4 Computational Physics Specialization

PHZ 3151 Computer Methods in Physics COP 3502C Computer Science I
( 18 hrs )
3 hrs
3 hrs

COP 3503C Computer Science II 3 hrs
COT 4500 Numerical Calculus 3 hrs
Directed Electives
6 hrs
Courses at a 3000 level or higher, approved by the
Physics Department. Courses must be chosen in Physics, Mathematics, Computer Science, or Engineering.
4.5 Astronomy Specialization

AST 2002 Introduction to Astronomy
AST 2022 Observational Astronomy

Choose two of the following:
AST 3110 Solar System Astronomy 3 hrs

AST 3211 Stellar Astrophysics 3 hrs
AST 3XXX Galaxies and Cosmology
Directed Electives
( 18 hrs )
3 hrs 3 hrs

Courses at a 3000 level or higher, approved by the
Physics Department. Courses must be chosen in
Physics, Mathematics, Computer Science, or
Engineering.

## 5. Departmental Exit Requirements

- Students must have at least a 2.0 GPA in all courses counted toward the major
- Students will be required to take a nationally normed test in Physics during their last semester
- Students will have an exit interview in their last semester with a representative of the Physics Undergraduate Committee

Computer Competency met by COP 2200 or a departmental exam

Admission: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

Graduation: None

## 7. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

## - A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: Engineering, Mathematics

Related Minors: Mathematics, Physics

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- CHM 2045C*: may use CHM 1040 plus CHM 1041
- MAC 2281*, 2282*, 2283*: MAC 2311, 2312, and 2313 will substitute

POLITICAL SCIENCE (B.A.)

College of Arts and Sciences
Political Science Department, CNH 415, 407-823-2608
http://pegasus.cc.ucf.edu/~politics
E-mail: politics@ucf.edu
R. Bledsoe, 407-823-2608

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

Co-op or internship credit can not be used in this major without prior departmental approval
Students should consult with a departmental advisor
Departmental Residency Requirement consists of at least 15 semester hours of regularly scheduled courses taken from the UCF Department of Political Science

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations

Prefer AMH 2010 US History: 1492-1877 and
AMH 2020 US History: 1877-Present 3 hrs
Select from GEP list

3 hrs
(36 hrs)
9 hrs

$$
3 \mathrm{hrs}
$$

r

3 hrs
C. Mathematical Foundations 6 hrs
Select MGF 1106 Finite Mathematics
3 hrs
(may substitute a higher level math)
Select STA 2014C Principles of Statistics or 3 hrs
STA 1060C Statistics Using Excel
D. Social Foundations
Select POS 2041 American National Government 3 hrs
Select one of the three choices 3 hrs
E. Science Foundations 6 hrs
2. Common Program Prerequisites

POS 2041* American National Government
(3 hrs)

POS 3703* Scope \& Methods of Pol Sci 3 hrs
*See Transfer Notes for possible substitutes
3. Upper Division Restricted Electives
(30 hrs)
Choose one of the following emphases

## Emphasis 1: American Politics and Policy

Five courses from area A 15 hrs
Two courses from area B 6 hrs
Two courses from area $\mathrm{C} \quad 6 \mathrm{hrs}$
One additional course from any area 3 hrs
Emphasis 2: International Relations-Comparative Politics
Two courses from area A 6 hrs
*Five courses from area B 15 hrs
Two courses from area C 6 hrs
One additional course from any area 3 hrs
*No more than two of the following courses may be considered part of area B credit: INR 4401, INR 4402, INR 4404.

## Emphasis 3: Prelaw

Please see Political Science - Prelaw for the emphasis requirements.
AREAS OF SPECIALIZATION

## A. American Politics and Policy

| POS 3122 | State Government |
| :--- | :--- |
| POS 3173 | Southern Politics |
| POS 3233 | Political Opinion |
| POS 3235 | Mass Media and Politics |
| POS 3273 | Voting and Elections |
| POS 3413 | The American Presidency |

POS 3424 Congress and the Legislative Process
POS 3443 Political Parties and Processes
POS 3463 Interest Groups
POS 3627 Cultural Pluralism and the Law
POS 4142 Metropolitan Politics
POS 4206 Political Psychology
POS 4246 Political Socialization
POS 4265 Power and Policy in the United States
POS 4284 Judicial Process and Politics
POS 4412 Presidential Campaigning
POS 4603 American Constitutional Law I
POS 4604 American Constitutional Law II
POS 4622 Politics and Civil Rights
PUP 3204 Environmental Politics
PUP 3314 Minorities in American Politics
PUP 4003 American Public Policy
PUP 4323 Women and Politics
PUP 4404 Education and Politics
PUP 4503 Government and Science

PUP 4602 Politics of Health
PUP 4931 Topics in Public Policy

## B. International Relations and Comparative Government

CPO 3034 Politics of Developing Areas
CPO 3103 Comparative Politics
CPO 3104 Politics of Western Europe
CPO 3132 Canadian Studies
CPO 3403 Politics of the Middle East
CPO 3614 Politics of Eastern Europe
CPO 4062 Comparative Judicial Processes
CPO 4074 Political Economy
CPO 4123 Government and Politics of Great Britain
CPO 4303 Comparative Latin American Politics
CPO 4643 Government and Politics of Russia
CPO 4710 Women in Comparative Perspective
GEO 3470 World Political Geography
INR 2002 International Relations
INR 3253 International Politics of Africa
INR 4035 International Political Economy
INR 4085 Women, Gender, and Globalization
INR 4102 American Foreign Policy
INR 4114 American Security Policy
INR 4115 Strategic Weapons and Arms Controls
INR 4224 Contemp International Politics of Asia
INR 4225 Vietnam War
INR 4243 International Politics of Latin America
INR 4335 Coercion in International Politics
INR 4351 International Environmental Law

INR 4401 International Law I
INR 4402 International Law II
INR 4404 Space Law
INR 4502 International Organizations
POS 3253 Contemp Revolution \& Political Violence
PUP 3508 Space Studies
PUP 4510 Space Policy
C. Political Theory

POT 3204 American Political Thought
POT 3302 Modern Political Ideologies
POT 4003 Political Theory
POT 4025 Ancient, Medieval and Early Modern
Political Philosophy
POT 4054 Modern Political Philosophy
POT 4066 Contemporary Political Theory
POT 4305 The State, Society, and The Individual
POT 4314 Contemporary Democratic Theory
POT 4414 Marxist Political Theory
POT 4632 Religion and Politics

## 4. Departmental Exit Requirements

- Maintain a minimum GPA of 2.0 in the major
- Computer Competency met by POS 3703


## 5. Foreign Language Requirements

Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam.

## 6. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## Internship Program: Political Science

For students who excel, a limited number of internships may be available each semester for three to six hours of credit. Under the Internship Director, the student is typically placed in an office of local, state, or national government, a law office, or campaign headquarters.

## 7. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted

Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

## Total Semester Hours Required

## 120 hours

Related Programs: Economics, History

Related Minors: Economics, History, Psychology, Sociology, Philosophy

## Transfer Notes:

Grades below "C" (2.0) from other institutions do not meet departmental requirements.

- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:
POS 2041* and POS 3703*: State mandated Common Program Prerequisite allow a student to prefix. However, both POS 2041 and POS 3703 are course prerequisites for subsequent courses in the major, and other classes will not substitute.

POLITICAL SCIENCE - PRELAW TRACK (B.A.)

College of Arts and Sciences
Political Science Department, CNH 415, 407-823-2608
http://pegasus.cc.ucf.edu/~politics
E-mail: politics@ucf.edu
R. Bledsoe, 407-823-2608

While no specific major is prescribed for admission to law school, many prelaw students elect to major in political science. These individuals usually choose the prelaw emphasis within the political science major.

Prelaw students are encouraged to work closely with a prelaw advisor in planning their programs. By judicious use of electives, students build a firm foundation for law school entry and acquire a broad training which can result in career options upon graduation. For further information, consult one of the Department's prelaw advisors or the College of Arts and Sciences Prelaw Advisor.

The following represent a suggested curriculum which both meets the requirements for a Political Science Degree while preparing you for professional school.

## Admission Requirements

## none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

Co-op or internship credit can not be used in this major without prior departmental approval Students should consult with a departmental advisor

Departmental Residency Requirement consists of at least 15 semester hours of regularly scheduled
courses taken from the UCF Department of Political Science

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations

Prefer AMH 2010 US History: 1492-1877 and
AMH 2020 US History: 1877-Present 3 hrs
Select from GEP list
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Select STA 2014C Principles of Statistics or
STA 1060C Statistics Using Excel
D. Social Foundations

Select POS 2041American National Gvt
Select one of the three choices
E. Science Foundations
2. Common Program Prerequisites

POS 2041* American National Gvt
POS 3703* Scope \& Methods of Pol Sci
*See Transfer Notes for possible substitutes
(36 hrs)
9 hrs

3 hrs

3 hrs 6 hrs

3 hrs

3 hrs

3 hrs
3 hrs
6 hrs

GEP
3 hrs

## 3. Upper Division Restricted Electives

POS 4284 Judicial Process and Politics
One of the following:
(30 hrs)
3 hrs
3 hrs

POS 4604 American Constitutional Law II
INR 4401 International Law I
INR 4402 International Law II
Select one (See listing under Political Science)
Five courses from area A and
15 hrs
Two courses from area B
6 hrs
or
Two courses from area A and
Five courses from area B
6 hrs

One course from area C

## 4. Departmental Exit Requirements

- Maintain a minimum GPA of 2.0 in the major
- Computer Competency met by POS 3703


## 5. Foreign Language Requirements

Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam.

## 6. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

Some suggested electives Include:
ACG 2021 Principles of Financial Accounting
ACG 2071 Principles of Managerial Accounting
BUL 3320,3321 Business Law I \& II
PLA 3104 Legal Research
PLA 3155 Legal Writing
PHI $2101 \quad$ Critical Thinking

PHI $2100 \quad$ Formal Logic I
MHF $2300 \quad$ Logic and Proof in Mathematics
ENC 3311 Expository Writing
LIN $4100 \quad$ History of the English Language
Internship Program: Political Science
For students who excel, a limited number of internships may be available each semester for three to six hours of credit. Under the Internship Director, the student is typically placed in an office of local, state, or national government, a law office, or campaign headquarters.

## 7. University Minimum Exit Requirements

- A 2.0 UCF GPA
- 60 semester hours earned after CLEP awarded

48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: Economics, History, Philosophy

Related Minors: Economics, History, English, Philosophy

## Transfer Notes:

Grades below "C" (2.0) from other institutions do not meet departmental requirements
Courses taken at community colleges do not substitute for Upper Division courses

- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit.

The student must provide all supporting information.
Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- POS 2041* and POS 3703*:State mandated Common Program Prerequisite allow a student to enter the major with any six hours of introductory Political Science classes with a POS, INR, or CPO prefix. However, both POS 2041 and POS 3703 are course prerequisites for subsequent courses in the major, and other classes will not substitute.

[^8]PSYCHOLOGY (B.A.)

## College of Arts and Sciences

Psychology Department, PH 302B, 407-823-2216
http://pegasus.cc.ucf.edu/~psych

## E-mail: psychology@ucf.edu

J. McGuire, 407-823-2216

Psychology Advising Center: PH 305G 407-823-2219

Students majoring in Psychology as the foundation of a Liberal Arts degree will probably find the BA option an appropriate degree. Not open to BS Psychology majors.

## Admission Requirements

## none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

Departmental Residency Requirement: at least 21 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Psychology Department

- Students must earn at least a "C-" (1.75) in each Psychology course counted toward the major requirements
- Co-op or internship credit can not be used in this major
- Students should consult with the Department Director of Undergraduate Advising, K. Mottarella, 407-823-2466, prior to applying for graduation (before registration for the final term)
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## Honors in Psychology:

## Additional Requirements

- The Honors in Psychology is available to majors who show outstanding scholarship and promise in psychology

Application and admission through the department
Fulfill University requirements for Honors in the Major

- Have a Psychology GPA above 3.5, based on at least 11 credits, including PSY 3214C. No grades can be below a "B" (3.0)

Have an overall UCF GPA above 3.2

- PSY 3970H Directed Honors Readings

PSY 4903H Undergraduate Honors Thesis

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Math
Select STA 2023 Statistical Methods I* or
STA 2014C Principles of Statistics
D. Social Foundations

Select one of the listed choices
Select PSY 2013 General Psychology
E. Science Foundations

Select BSC 1005 Biological Principles 3 hrs
Select one of the listed choices
*See Transfer Notes for possible substitutions

## 2. Common Program Prerequisites

BSC 1005* Biological Principles
PSY 2013* General Psychology

3 hrs
3 hrs
(36 hrs)
9 hrs
9 hrs

3 hrs
3 hrs

3 hrs
3 hrs

3 hrs

GEP

| DEP 2004* | Developmental Psychology | 3 hrs |
| :--- | :--- | :---: |
| STA 2023* | Statistical Methods I or STA 2014C | GEP |
| *See Transfer Notes for possible substitutes |  |  |

## 3. Core requirements

| EXP 3404 | Basic Learning Processes | 3 hrs |
| :--- | :--- | :--- |
| PSB 3002 | Physiological Psychology | 3 hrs |
| PSY 3214C | Research Methods | 4 hrs |

## 4. Restricted Electives

Select two of the following three courses
( 12 hrs )
6 hrs

DEP 2004 Developmental Psychology
PPE 3003 Personality Theory
SOP 3004 Social Psychology
Select six additional upper division hours in Psychology 6 hrs

## 5. Diversity

Take three diversity courses: one from A, one from B, and one from either A or B
A. Psychology Diversity courses

DEP 3464 Psychology of Aging
SOP 3723 Cross Cultural Psychology
SOP 3724 Psychology of Racial Prejudice
SOP 3742 Psychology of Women
SOP 2772 Sexual Behavior
SOP 3784 Psychology of Diversity
B. General Diversity courses

Select from courses outside the Psychology department that focus on gender, class, or minority issues:
AMH 3561, 3562, 3571, 3586; AML 3614, 4261; ANT 3241, 3302, 3311, 3312, 3313, 3332, 3363, 3541, 3640; ARH 3520, 4458; ASH 4404, 4442; CCJ 4670; CLA 3851; COM 4461; CPO 3403; EUH

## 6. Departmental Exit Requirements

Earn a grade of "C-" (1.75) or better in each psychology course used for major
Maintain a minimum overall psychology GPA of 2.0

- Computer Competency met by PSY 3214C


## 7. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam.

## 8. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Related Programs: Sociology, Anthropology, Statistics, Criminal Justice

Related Minors: Psychology, Sociology, Anthropology, Math, Statistics

## Transfer Notes:

- Grades below "C-" (1.75) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- BSC 1005*: any lower level BSC course or ZOO X010.
- PSY 2013*: any PSY course. However PSY 2013 is a prerequisite for all subsequent Psychology courses and will need to be taken for the major.
- STA 2023* or STA 2014C: any lower level STA course. However, STA 2023 (or STA 2014C) is a prerequisite for subsequent Psychology courses and will need to be taken for the major.

DEP 2004*: any lower level psychology course.
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PSYCHOLOGY (B.S.)

## College of Arts and Sciences

Psychology Department, PH 302B, 407-823-2216
http://pegasus.cc.ucf.edu/~psych

## E-mail: psychology@ucf.edu

J. McGuire, 407-823-2216

Students who desire a quantitative background in statistics, math, and science are encouraged to complete the program of study leading to the BS degree. Not open to BA Psychology majors.

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Departmental Residency Requirement: at least 21 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Psychology Department
- Students must earn at least a "C-" (1.75) in each Psychology course counted toward the major requirements
- Co-op or internship credit can not be used in this major
- Students should consult with the Department Director of Undergraduate Advising, K. Mottarella, 407-823-2466, prior to applying for graduation (before registration for the final term)
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## Honors in Psychology:

## Additional Requirements

- The Honors in Psychology is available to majors who show outstanding scholarship and promise in psychology
- Application and admission through the department
- Fulfill University requirements for Honors in the Major
- Have a Psychology GPA above 3.5, based on at least 11 credits, including PSY 3214C. No grades can be below a "B" (3.0)
- Have an overall UCF GPA above 3.2
- PSY 3970H Directed Honors Readings
3 hrs
- PSY 4903H Undergraduate Honors Thesis
3 hrs


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Math
Select STA 2023 Statistical Methods I* or
STA 2014C Principles of Statistics
D. Social Foundations

Select one of the listed choices
Select PSY 2013 General Psychology
E. Science Foundations

Select BSC 2010C General Biology 4 hrs
Select one of the listed choices 3 hrs
*See Transfer Notes for possible substitutions

## 2. Common Program Prerequisites

BSC 2010C* General Biology
PSY 2013* General Psychology

3 hrs
3 hrs

3 hrs
3 hrs

| DEP 2004* | Developmental Psychology | 3 hrs |
| :--- | :--- | :---: |
| STA 2023* | Statistical Methods I or STA 2014C | GEP |
| *See Transfer Notes for possible substitutes |  |  |

## 3. Core requirements

EXP 3404 Basic Learning Processes
PSB 3002 Physiological Psychology
PSY 3214C Research Methods
PSY 4215C Advanced Research Methods

## 4. Restricted Electives

A. Select two of the following:

DEP 2004 Developmental Psychology
PPE 3003 Personality Theory
SOP 3004 Social Psychology
B. Psychology electives: select six additional 6 hrs upper division hours in psychology

## 5. Diversity courses

Take two diversity courses - one from A \& one from B
A. Psychology Diversity courses
3 hrs

DEP 3464 Psych of Aging
SOP 3723 Cross Cultural Psychology
SOP 3724 Psych of Racial Prejudice
SOP 3742 Psych of Women
SOP 2772 Sexual Behavior
SOP 3784 Psychology of Diversity
B. General Diversity courses

3 hrs

Select from courses outside the Psychology department that focus on gender, class or minority issues. AMH 3561, 3562, 3571, 3586; AML 3614, 4261; ANT 3241, 3302, 3311, 3312, 3313, 3332, 3363, 3541, 3640; ARH 3520, 4458; ASH 4404, 4442; CCJ 4670; CLA 3851; COM 4461; CPO 3403; EUH 4576; FIL 3309; GEO 3470; HSC 4564; HUM 3401, 3419; JST 3401; LAH 3130, 3200, 3400, 5713; LIN 4643; LIT 3354, 3383; PHI 3022, 3033; PHM 3123; POS 4246, 4622; PUP 3314, 4323; REL 3162; SPA 4612, 4613; SYD 3700, 3800; SYP 4730; WST 3015.

## 6. Science Electives

( 12 hrs )
A. Select at least six credits outside Psychology from: 6 hrs
(See course listing for prerequisites)
CGS 2100C Computer Fundamentals of Business
COP 3502C Computer Science I
COP 3503C Computer Science II
ENC 3241 Technical Writing
ENC 3242 Scientific Report Writing
MAC 2233 Concepts of Calculus
MAC 2253 Applied Calculus I
MAC 2254 Applied Calculus II
PCB 3063 \& L Genetics with lab
PCB 3703C Human Physiology
STA 4102 Computer Process of Stat Data
STA 4163 Statistical Methods II
STA 4164 Statistical Methods III
ZOO 3733C Human Anatomy
B. Select at least six credits from:

6 hrs
EXP 3204C Perception
EXP 3513 Cognitive Psychology
EXP 4218L Exp Lab Human Memory and Cognition
PSB 4013C Neuropsychology
PSY 3302 Psychological Measurement

PSY 4213L Advanced Research Methods Statistical Lab
PSY 4302C Psychological Measurement Lab

## 7. Departmental Exit Requirements

Earn a grade of "C-" (1.75) or better in each psychology course
Maintain a minimum overall psychology GPA of 2.0
Computer Competency met by PSY 3214C

## 8. Foreign Language Requirements

(0-8 hrs)
Admission: Met by graduation requirement..
Graduation: Two semesters or equivalent proficiency exam

## 9. Electives

- Complete the General Education Program, the Gordon Rule, the CLAST, and nine hours of Summer credit (if applicable).

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 10. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted

Related Programs: Sociology, Anthropology, Statistics, Criminal Justice

Related Minors: Psychology, Sociology, Anthropology, Math, Statistics

## Transfer Notes:

- Transfer grades below "C-" (1.75) are not acceptable for Psychology coursework required for the major
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:
BSC 2010C*: any lower level BSC course or ZOO X010. However, BSC 2010C is a prerequisite for all subsequent Biology courses and thus may need to be taken in order to qualify for other Biology courses used as science electives for the BS degree in psychology.

- PSY 2013*: any PSY course. However PSY 2013 is a prerequisite for all subsequent Psychology courses and will need to be taken for the major.

STA 2023* or STA 2014C: or any lower level STA course. However, STA 2023 (or STA 2014C) is a prerequisite for subsequent Psychology courses and will need to be taken for the major.

- DEP 2004*: any lower level psychology course.
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## PUBLIC ADMINISTRATION

(B.A., B.S.)

College of Health and Public Affairs
HPA II 238, 407-823-2604
Chair: K. Tom Liou
Web Address: http://www.cohpa.ucf.edu/pubadm/

## Admission Requirements

none

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog

- Students should complete the General Education Program and the Common Program Prerequisites before transferring within the Florida Public University/Community College System
- Students should consult with a departmental advisor

The courses designated in sections 1 and 2 below may be taken at a Florida Community College and should usually be completed in the first 60 hours

- Students must earn at least a "C" (2.0) in each course accepted as a Common Program Prerequisite and Core Requirement (see sections 2 and 3 below)

No transfer course will be accepted with a grade lower than a "C"

- The courses designated in sections 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations

9 hrs
C. Mathematical Foundations 6 hrs

Select CGS 1060C
D. Social Foundations (nine hours required for major) 6 hrs

Select PSY 2013 or SYG 2000
E. Science Foundations 6 hrs

## 2. Common Program Prerequisites

CGS 1060C Intro to Computer Science
POS 2041 American National Government
ECO 2013 Principles of Economics I
3. Core Requirements

PAD 3003 Public Admin. in American Society 3 hrs
PAD 4034 Administration of Public Policy 3 hrs
PAD 4104 Administrative Management 3 hrs
PAD 4204 Fiscal Management 3 hrs
PAD 4414 Human Resource Management 3 hrs
PAD 4720 Survey Research in Public
Administration 3 hrs
(3 hrs)
GEP
GEP
3 hrs

## 4. Upper Division Restricted Electives

Public Administration electives, (including internship minimum 2.5 GPA) are required as follows:

- Double Majors, those who complete a PAD major, and those of another UCF major, must take a minimum of 15 hrs PAD prefixed electives
- Those who complete a recognized UCF minor in a discipline outside Public Administration must take a minimum of 18 hrs PAD prefixed electives
- All other PAD majors must complete at least 21 hrs of PAD prefixed electives within the restricted elective area
- Additional electives can be taken from other allied supporting fields such as accounting, legal studies, communications, computer science, criminal justice, economics, political science, social
work, sociology and statistics. Courses should be selected with the assistance of an advisor, and must be upper division (3000-4000 level).


## 5. Departmental Exit Requirements

The students must attain a minimum grade of "C" (2.0) in all Common Program Prerequisite courses and in all Core Requirements (see sections 2 and 3 above). An overall 2.0 GPA must be attained for all coursework (see sections 1, 2, 3 and 4).

## 6. Electives

(variable)

## 7. Foreign Language Requirements

(0-8 hrs)
Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation: Students pursuing the B.A. degree must demonstrate proficiency in a foreign language equivalent to one
year. Students pursuing the B.S. degree must satisfy six hours from the approved list of courses.

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Accounting, Communications, Economics, Legal Studies, Computer Science, Social Work, Political Science, Criminal Justice, Health Services Administration, Management

## Transfer Notes:

Intro. to Computer Science (CGS 1060C) or any Computer

Science course
Economics I (ECO 2013) or any Macroeconomics course

American National Government (POS 2041) or any course in
American National Government 3

## Honors

Honors Option Requires:

- Completion of a three credit directed readings course
- Completion of a three credit thesis course
- Open to students with a minimum 3.5 GPA in Public Administration
- Minimum cumulative UCF 3.2 GPA
- Completion of 60 semester hours of college credit, including 12 graded upper division hours at UCF


## Tentative Course Schedule for Entering Freshmen

Freshman Year*
Fall 14 hrs Spring 15 hrs

ENC 1101
CGS 1060C
POS 2041
One Course: ARH 2050,
ARH 2051, MUL 2010,
THE 1020, REL 2300,
PHI 2010, LIT 2110, LIT 2120
PAF 2102

| Summer | $\mathbf{6 / 8} \mathbf{~ h r s}$ |
| :--- | ---: |
| (Foreign Lang I) or B.S. option | $3 / 4$ |
| (Foreign Lang II) or B.S. option | $3 / 4$ |
| *Plan your required 9 summer hours into your course of study |  |

## Sophomore Year

| Fall | 15 hrs | Spring | 15 hrs |  |
| :---: | :---: | :---: | :---: | :---: |
| SPC 1600C | 3 | PAD 3003 |  | 3 |
| EUH 2000 or HUM 2211 |  | 3 EUH 2001 or |  | 3 |
| or AMH 2010 |  | HUM 2230 or |  |  |
| ECO 2013 | 3 | AMH 2020 |  |  |
| BSC 1005 or BSC 1030 |  | 3 Elective |  | 3 |
| or GLY 1030 or GEO 1200 |  | ENC 2210 |  | 3 |
| or BOT 1000 or ANT 3511 |  | Elective |  | 3 |
| Elective | 3 |  |  |  |
| Junior Year |  |  |  |  |
| Fall | 12 hrs | Spring | 12 hrs |  |
| PAD 4104 | 3 | PAD 4034 |  | 3 |
| PAD 4414 | 3 | PAD 4204 |  | 3 |
| PAD Elective | 3 | PAD 4720 |  | 3 |
| Restricted Elective |  | 3 PAD Elective |  | 3 |

Senior Year

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 2 / 1 5} \mathbf{~ h r s ~}$ |  |
| :--- | :---: | :--- | :---: | :---: |
| PAD Elective | 3 | PAD Internship | $3 / 6$ |  |
| PAD Elective | 3 | PAD Elective | 3 |  |


| Restricted Elective | 3 | Restricted Elective | 3 |
| :--- | :--- | :--- | :--- |
| Restricted Elective | 3 | Elective | 3 |
| Restricted Elective | 3 |  |  |

## Minor

The six PAD required core courses for the major will be required of the PAD minor. These are PAD 3003, PAD 4414, PAD 4104, PAD 4204, PAD 4034, and PAD 4720.
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## RADIO-TELEVISION (B.A.)

## College of Arts and Sciences

Nicholson School of Communication, COM 246,
407-823-2681,

## http://www.cas.ucf.edu/communication

## E-mail: radiotv@ucf.edu

J. Maunez

## Admission Requirements - LIMITED ACCESS

- Students should apply to become Radio-Television majors only after completing all requirements for admission. Deadlines are:

October 1, 2001 for Spring 2002
February 1, 2002 for Summer 2002
July 1, 2002 for Fall 2002

- Attain an overall minimum 2.25/4.00 GPA based on a minimum of 30 credit hours of college work. Note: meeting the minimum GPA does not guarantee admission since students are admitted on a space available basis. The GPA cut-off varies each term with the quality of applicants, and during the previous year, ranged from a minimum of 2.9.

Meet a grammar proficiency standard.
Pass a Keyboard Proficiency Test ( 25 wpm ) or more within three attempts, or complete a college level keyboard/typing course with a grade of "C" (2.0) or better.

Receive a positive evaluation of other factors specified by the School.

## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.

Students may complete an internship off campus in a professional broadcast, production, or corporate operation

- Co-op or internship credit can not be used in this major without prior departmental permission - Students should consult with a School advisor

School Residency Requirement consists of at least 24 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Nicholson School of Communication

- Students electing both a major and minor in the School must take the minor courses in excess of the 120 hours required for graduation
- A maximum of 3 credit hours of internship may be earned in one semester. A total of 6 credit hours of internship may be earned within the 120 credit hours required for graduation. Summer internships are available during "C" (2.0) term only.
- Courses designated in 1 (General Ed Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

Select ENC 1101 \& 1102 Composition
Select SPC 1600C Fund Oral Communication
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Select CGS 1060C Intro. to Computer Science
D. Social Foundations
E. Science Foundations
2. Common Program Prerequisites

SPC 1600C Fund Oral Communication

## 3. Core requirements (all tracks)

CGS 2585C Desktop/Internet Publishing
(36 hrs)

6 hrs
3 hrs
9 hrs
6 hrs
3 hrs

3 hrs
6 hrs
6 hrs

| RTV 2102 | Writing for the Electronic Media | 3 hrs |
| :--- | :--- | :--- |
| RTV 3200 | Broadcast Techniques | 3 hrs |
| RTV 3000 | Foundations of Broadcasting | 3 hrs |
| MMC 4200 | Mass Communication Law | 3 hr |
| RTV 4403 | Elec Media, Tech, and Society | 3 hrs |
| MMC 3420 | Mass Media Comm Research Meth | 3 hrs |

## 4. Specialization: select one area

## Production Track: Select 18 hrs

| RTV 3210 | Audio Production I | 4 hrs |
| :--- | :--- | :---: |
| RTV 3228 | Studio Television Production | 4 hrs |
| RTV 3223 | Lighting for Video | 3 hrs |

RTV 3260C Single-Camera Video Production ..... 4 hrs
RTV 3263C Advanced Video Post-Production ..... 3 hrs
RTV 3280C Production of Int. Multimedia ..... 3 hrs
RTV 3942 Practicum ..... $1-3 \mathrm{hrs}$
RTV 4211C Audio Production II ..... 3 hrs
RTV 4280C Webcasting I ..... 3 hrs
RTV 4281C Webcasting II ..... 3 hrs
RTV 4206 Television Directing ..... 4 hrs
RTV 4270C Radio Production \& Programming ..... 3 hrs
RTV 4941 Internship ..... $1-3 \mathrm{hrs}$
Broadcast Journalism Track ..... (19 hrs)
RTV 3260C Single-Camera Video Production ..... 4 hrs
RTV 3301 Electronic Journalism I ..... 3 hrs
RTV 3304 Electronic Journalism II ..... 3 hrs
RTV 4320C Television News ..... 3 hrs
MMC 4602 Contemporary Media Issues 3 hrs

JOU 3004 History of American Journalism 3 hrs

## Broadcast Generalist Track

( 18 hrs )
Select 12 hours from Group A:

| RTV 3231C | Broadcast Announcing \& Performance | 4 hrs |
| :--- | :--- | :---: |
| RTV 3810 | Broadcast Promotion | 3 hrs |
| RTV 4270 | Radio Production \& Programming | 3 hrs |
| RTV 4700 | Broadcast Regulations | 3 hrs |
| RTV 4800 | Broadcast Management | 3 hrs |
| ADV 4103 | Radio-TV Advertising | 3 hrs |
| CMC 4240 | Corporate/Institutional Video | 3 hrs |
| COM 3330 | Computer-Mediated Comm. | 3 hrs |
| MMC 4263 | New Media Technologies | 3 hrs |
| Select 6 hours from Group B: |  |  |
| ADV 3000 | Principles of Advertising | 3 hrs |
| PUR 4000 | Public Relations | 3 hrs |
| COM 3110 | Business \& Prof. Comm. | 3 hrs |
| VIC 3001 | Visual Communication | 3 hrs |
| ENC 2210 | Writing for Business Professionals | 3 hrs |

## 5. Required Minor

Radio-Television majors must complete a minor in an academic area outside the School of Communication.

## 6. School Exit Requirements

- To avoid delaying graduation, you must request a review of requirements before registering for your last term
- Achieve an overall "C" GPA (2.0) in required UCF Radio/TV courses. This GPA does not include Restricted Electives in the major or other electives.

Computer Competency met by program admission test

## 7. Foreign Language Requirements

Admission: Met by graduation requirement
Graduation: One year or equivalent proficiency exam.

## 8. Electives

(variable)
Select primarily from upper level courses, with School advisor's approval. May be outside of the School.

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

120 hours

Related Programs: Advertising/Public Relations, Animation, Digital Media, Journalism, Film, Theatre

Related Minors: Digital Media, Film, Marketing, Theatre

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet School requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.
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## RADIOLOGIC SCIENCES (B.S.)

## College of Health and Public Affairs

HPA II 210, 407-823-2747
Undergraduate Program Director: Thomas Edwards
E-mail: tedwards@mail.ucf.edu
Web Address: http://www.cohpa.ucf.edu/health.pro/

## Admission Requirements - LIMITED ACCESS

Acceptance to the university does not necessarily constitute admission to the upper division Radiologic Sciences Program. SEPARATE APPLICATION to the limited access program must be made directly to the program prior to March 1 of the year admission is sought. A personal interview is also required. Student must complete all general education, foreign language admissions, and program prerequisites prior to the start of the program. All applicants must have a minimum overall GPA of 2.5, and complete all program prerequisite courses with at least a grade of "C." (No CLEP, TSD, or AP credit may be used for prerequisite courses.)

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog

Students should complete the General Education Program, Foreign Language Admissions, and the Common Program Prerequisites Requirements before transferring within the Florida Public University/Community College System

- Students should consult with a departmental advisor

The courses designated in sections 1 and 2 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours

- A minimum overall GPA of 2.5 and a minimum grade of "C" (2.0) in prerequisite and major courses is required for admission to, continuation in, and graduation from the Radiologic Sciences Program

UCF Residency Requirement for Radiography: 33 hours

## 1. UCF General Education Program

A. Communication Foundations 9 hrs
B. Cultural Historical Foundations
C. Mathematical Foundations

Select MAC 1105
Select CGS 1060C
D. Social Foundations 6 hrs
E. Science Foundations 6 hrs

Select BSC 2010C
Select PHY 2053C

## 2. Common Program Prerequisites

 (12 hrs)CGS 1060C Introduction to Computer Science GEP
PCB 3703C Human Physiology* 4 hrs
PHY 2053C College Physics I GEP
PHY 2054C College Physics II 4 hrs
ZOO 3733C Human Anatomy* 4 hrs
MAC 1105 College Algebra GEP

* See Transfer Notes


## 3. Core Requirements <br> (76 hrs)

JUNIOR LEVEL
RTE 3000 Introduction to Radiologic Sciences 3 hrs
RTE 3111C Introduction to Patient Care 2 hrs
RTE 3503C Radiographic Procedures I 3 hrs
RTE 3116 Advanced Patient Care 3 hrs
RTE 3418C Principles of Radiographic Exposure I 3 hrs

| RTE 3804 | Clinical Education I | 4 hrs |
| :---: | :---: | :---: |
| RTE 3513C | Radiographic Procedures II | 3 hrs |
| RTE 3457C | Principles of Radiographic Exposur | 3 hrs |
| RTE 3684C | Physics of Image Production | 2 hrs |
| HSC 3640 | Health Law | 3 hrs |
| RTE 3308 | Medical Physics | 3 hrs |
| STA 2023 | Statistical Methods I | 3 hrs |
| HSC 4550 | Pathophysiologic Mechanisms | 3 hrs |
| SENIOR LEVEL |  |  |
| RTE 4563 | Special Radiographic Procedures | 2 hrs |
| RTE 4782 | Pathophysiology | 2 hrs |
| RTE 4814 | Clinical Education II | 5 hrs |
| RTE 4824 | Clinical Education III | 6 hrs |
| RTE 4573 | Advanced Imaging Modalities | 3 hrs |
| RTE 4834 | Clinical Education IV | 4 hrs |
| RTE 4385 | Radiobiology | 1 hr |
| RTE 4844 | Clinical Education V | 4 hrs |
| RTE 4473 | Quality Improvement | 3 hrs |
| RTE 4762 | Anatomy for the Medical Imager | 3 hrs |
| RTE 4206 | Leadership in Radiologic Sciences | 3 hrs |
| RTE 4854 | Advanced Clinical Practicum | 2 hrs |

## 4. Upper Division Restricted Electives:

RTE 4209 Radiological Adm. Practice 2 hrs
RTE 4903 Directed Study Radiologic Education 2 hrs

## 5. Program Exit Requirements

(124 hrs)
A minimum overall GPA of 2.50 and a minimum grade of " C " (2.0) in prerequisite and major courses is required for admission to, continuation in, and graduation from the Radiologic Sciences Program.

The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Graduates are eligible to apply for admission to the radiography certification exam administered by the American Registry of Radiologic Technologists (ARRT).

## 6. Electives

## 7. Foreign Language Requirements

none

Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

## Graduation:

none

## 8. University Minimum Exit Requirements

An overall GPA of 2.5
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
33 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required:

(124 hours)
Related Programs: Cardiopulmonary Sciences, Nursing, Health Services Administration

Related Minors: Health Services Administration

## Transfer Notes:

Credit by Examination
Credit by Exam for clinical education courses will be awarded to ARRT certified Registered Technologists who demonstrate advanced knowledge and competencies beyond the level required for entry into the profession. The knowledge required to perform advanced competencies may be demonstrated by registration in multiple disciplines, registration in an advanced level of certification or completion of the Advanced Clinical Practicum course. Students who successfully complete the
requirements for credit by exam will be awarded a grade of " S " for the clinical education courses required in their program of study.

Credit by exam for didactic courses will be awarded according to the process described in the UCF catalog.

## Community College Equivalents:

Human Anatomy and Physiology I and II (BSC X085C and BSC X086C or BSC 2093C and BSC 2094C) 8

College Algebra (MAC 1105) OR (MAC 1102) 3
College Physics I (PHY 2053C) 4
College Physics II (PHY 2054C) 4
Introduction to Computer Science (CGS 1060C) or any other Computer Science course3

## Tentative Course Schedule for Entering Freshmen RADIOLOGIC SCIENCES

Freshman Year*

| Fall | $\mathbf{1 2 ~ h r s}$ | Spring | $\mathbf{1 3 ~ h r s ~}$ |
| :--- | ---: | :--- | :---: |
| ENC 1101 | 3 | ENC 1102 | 3 |
| CGS 1060C | 3 | BSC 2010C | 4 |
| MAC 1105 | 3 | MAC 1114 | 3 |
| CHM 1032 | 3 | ECO 2013 or POS 2041 | 3 |

Summer $3 \mathbf{h r s}$

MUL 2010 or THE 1020 or 3
REL 2300 or PHI 2010

Sophomore Year
Fall
14 hrs
Spring
14 hrs

| Summer | $\mathbf{8}$ hrs |
| :--- | ---: |
| (Foreign Lang I) | 4 |
| (Foreign Lang II) | 4 |
| if not satisfied in high school |  |

Junior Year

| Fall | $\mathbf{1 6}$ hrs | Spring | $\mathbf{1 6}$ hrs |
| :--- | ---: | :---: | ---: |
| RTE 3000 | 3 | RTE 3457C | 3 |
| RTE 3111C | 2 | RTE 3804 | 4 |
| RTE 3418C | 3 | RTE 3513C | 3 |
| RTE 3503C | 3 | HSC 4550 | 3 |
| RTE 3684C | 2 | RTE 3116 | 3 |
| HSC 3640 | 3 |  |  |
|  |  |  |  |
| Summer | $\mathbf{1 3 ~ h r s ~}$ |  |  |
| STA 2023 | 3 |  |  |
| RTE 4814 | 5 |  |  |
| RTE 3308 | 3 |  |  |
| RTE 4563 | 2 |  |  |

Senior Year

| RTE 4385 | 1 | RTE 4834 | 4 |
| :---: | :---: | :---: | :---: |
| RTE 4762 | 3 | RTE 4854** | 2 |
| RTE 4824 | 6 | RTE 4782 | 2 |
| RTE 4573 | 3 | RTE 4473 | 3 |
| RTE 4206 | 3 |  |  |
| Electives: |  |  |  |
| RTE 4209 or RTE 4903 | (2) |  |  |
| Summer | 6 hrs |  |  |
| RTE 4844 | 4 |  |  |
| RTE 4854** | 2 |  |  |223

Summer
RTE 4844
RTE 4854**
**Completed during the Spring or Summer semester/term.
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Admissions and Catalogs

## RADIOLOGIC SCIENCES (B.S.)

## AS to BS TRACK

(Completion program for individuals who have a statewide articulated AS degree from a Florida public community college)

## College of Health and Public Affairs

HPA II 210, 407-823-2747
Undergraduate Program Director: Thomas Edwards
E-mail: tedwards@mail.ucf.edu
Web Address: http://www.cohpa.ucf.edu/health.pro/

## LIMITED ACCESS PROGRAM

## Admission Requirements

Acceptance to the university does not necessarily constitute admission to the upper division Radiologic Sciences Program. SEPARATE APPLICATION to the limited access program must be made directly to the program.

- A personal interview is also required
- Student must complete a Statewide Articulated A.S. in Radiography program from a Florida Public Community College that is composed of 62 hours of course work, including at least 15 hours of transferable general education courses.
- All applicants must have a minimum overall GPA of 2.5 , and complete all program prerequisite courses with at least a grade of "C" (2.0). (No CLEP, TSD, or AP credit may be used for prerequisite courses.)
- Students must be certified in radiography and be in good standing with the American Registry of Radiologic Technologists (ARRT).


## Degree Requirements

- Students should consult with a departmental advisor
- Many of the courses designated in sections 1 and 2 below may be taken at a Florida Community College, and should usually be completed in the first 60 hours
- A minimum overall GPA of 2.5 and a minimum grade of " C " (2.0) in prerequisite and major courses is required for admission to, continuation in, and graduation from the Radiologic Sciences Program
- UCF Residency Requirement for Radiography: 33 hours


## 1. UCF General Education Program

A. Communication Foundations

Select ENC 1102, SPC 1600
B. Cultural Historical Foundations
C. Mathematical Foundations

MAC 1105 (Completed at CC)
STA 2023 (Core Requirement)
D. Social Foundations

Select ECO 2013 or ECO 2023 or POS 2041
E. Science Foundations

Select PHY 2053C
Select BSC 2010C
NOTE: PHY 2053L must be taken as a corequisite to PHY 2053C

## 2. Common Program Prerequisites

CGS 1060C Introduction to Computer Science CC
PCB 3703C Human Physiology* CC
PHY 2053C College Physics I
PHY 2054C College Physics II
ZOO 3733C Human Anatomy*

6 hrs
(21 hrs)
6 hrs

6 hrs
0 hrs

3 hrs of PHY 2053C and 2054C.

\author{

* See Transfer Notes
}


## 3. Core Requirements

## (33 hrs)

JUNIOR LEVEL
RTE 3000 Introduction to Radiologic Sciences 3 hrs
RTE 3111C Introduction to Patient Care 2 hrs
RTE 3503C Radiographic Procedures I 3 hrs
RTE 3116 Advanced Patient Care 3 hrs

RTE 3418C Principles of Radiographic Exposure I 3 hrs RTE 3804 Clinical Education I 4 hrs

RTE 3513C Radiographic Procedures II 3 hrs
RTE 3457C Principles of Radiographic Exposure II 3 hrs
RTE 3684C Physics of Image Production 2 hrs
HSC 3640 Health Law 3 hrs

RTE 3308 Medical Physics 3 hrs
STA 2023 Statistical Methods I 3 hrs
HSC 4550 Pathophysiologic Mechanisms 3 hrs
SENIOR LEVEL
RTE 4563 Special Radiographic Procedures 2 hrs
RTE 4782 Pathophysiology 2 hrs
RTE 4814 Clinical Education II 5 hrs
RTE 4824 Clinical Education III 6 hrs
RTE 4573 Advanced Imaging Modalities 3 hrs
RTE 4834 Clinical Education IV 4 hrs
RTE 4385 Radiobiology 1 hr
RTE 4844 Clinical Education V 4 hrs

| RTE 4473 | Quality Improvement | 3 hrs |
| :--- | :--- | :---: |
| RTE 4762 | Anatomy for the Medical Imager | 3 hrs |
| RTE 4206 | Leadership in Radiologic Sciences | 3 hrs |
| RTE 4854 | Advanced Clinical Practicum | 2 hrs |

## 4. Upper Division Restricted Electives:

RTE 4209 Radiological Adm. Practice 2 hrs

RTE 4903 Directed Study Radiologic Education 2 hrs
Core course requirements will include PHY 2054. Additional core course requirements will be determined during advisement.

## 5. Program Exit Requirements

( 124 hrs )
A minimum overall GPA of 2.50 and a minimum grade of "C" (2.0) in prerequisite and major courses is required for admission to, continuation in, and graduation from the Radiologic Sciences Program.

## 6. Electives

none

## 7. Foreign Language Requirements

(0-8 hrs)
Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 8. University Minimum Exit Requirements

An overall GPA of 2.5
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
33 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of


## Total Semester Hours Required:

(124 hours)
The total hours required for the AS to BS articulated radiologic sciences degree shall be no more than 132 credit hours.

Related Programs: Cardiopulmonary Sciences, Nursing, Health Services Administration

Related Minors: Health Services Administration

## Transfer Notes:

Credit by Examination - 23 credit hours of credit by exam for clinical education courses will be awarded to Registered Technologists certified by the American Registry of Radiologic Technologists (ARRT) who demonstrate advanced knowledge and competencies beyond the level required for entry into the profession. The knowledge required to perform advanced competencies may be demonstrated by registration in multiple disciplines, registration in an advanced level of certification, or completion of the Advanced Clinical Practicum course. If competency is not successfully demonstrated, additional clinical coursework may be required. Students who successfully complete the requirements for credit by exam will be awarded a grade of " S " for the clinical education courses required in their program of study. Credit by exam for didactic courses will be awarded according to the process described in the UCF catalog.

## Community College Equivalents:

Human Anatomy and Physiology I and II (BSC X085C and BSC X086C or BSC 2093C and BSC 2094C) 8

College Algebra (MAC 1105) 3
College Physics I (PHY 2053C) 4
College Physics II (PHY 2054C) 4
Introduction to Computer Science (CGS 1060C) or any
other Computer Science course

SCIENCE EDUCATION - BIOLOGY (B.S.)

## College of Education

Department of Instructional Programs and Educational Leadership, ED346, 407-823-2939
Coordinator: Aldrin Sweeney, ED105, 407-823-2561,
E-mail: asweeney @ pegasus.cc.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university

Have a minimum 2.5 overall GPA

- Pass four parts of the CLAST examination (no alternatives are accepted)
- Complete prerequisite courses


## Degree Requirements

Students should see an advisor

- The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II

| B. Cultural-Historical Foundations* | (9 hrs) |  |
| :--- | :--- | :---: |
| AMH 2010 | U.S. History 1492-1877 | 3 hrs |
| AMH 2020 | U.S. History 1877-Present | 3 hrs |
| PHI 2010 | Introduction to Philosophy | 3 hrs |
| C. Mathematical Foundations* | $(6 \mathrm{hrs})$ |  |
| MGF 1106 | Finite Mathematics | 3 hrs |
| Select one: |  |  |
| STA 1060C | Basic Statistics using MS Excel or | 3 hrs |
| STA 2014C | Principles of Statistics | 3 hrs |
| D. Social Foundations | $(6 \mathrm{hrs})$ |  |
| POS 2041 | American National Government | 3 hrs |
| PSY 2013 | General Psychology | 3 hrs |
| E. Science Foundations | $(6 \mathrm{hrs})$ |  |
| PSC 1121 | Physical Science | 3 hrs |
| Select one: |  | 3 hrs |
| AST 2002 | Astronomy or |  |
| GEO 1200 | Physical Geography or |  |
| GLY 1030 | Geology and its Applications |  |
| Note: See laboratory component under Section 2. |  |  |

## 2. Common Program Prerequisites

(19 hrs)
A. Communications
(9 hrs)

ENC 1101 Composition I
GEP
ENC 1102 Composition II GEP
SPC 1600C Fundamentals of Oral Communication GEP
B. Humanities

PHI 2010 Introduction to Philosophy GEP Select one: 3 hrs

ARH 2050 The History of Art I or
ARH 2051 The History of Art II or
MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
(9 hrs)
3 hrs

## GEP

GEP
STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History 1492-1877 GEP

AMH 2020 U.S. History 1877-Present
POS 2041 American National Government
PSY 2013 General Psychology
E. Science

BSC 2010C General Biology w/Lab
PSC 1121 Physical Science
One of the following (per GEP)
AST 2002 Astronomy or
GEO 1200 Physical Geography or
GLY 1030 Geology and its Applications
F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations 3 hrs
EME 2040 Intro to Educational Technology 3 hrs
G. Diversity Courses
H. Other Program Prerequisites

## GEP

GEP
GEP
( $9 \mathrm{hrs}+\mathrm{lab}$ )
4 hrs
GEP
GEP
(9 hrs)
3 hrs

GEP

AMH 2010
U.S. History

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to 2000-01, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in Science Education-Biology take a series of core and specialization courses to prepare them to teach Biology in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Science Education major's program and to link theory to practice in actual school settings. Throughout the Science Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

- Achieve a minimum 2.5 GPA in all courses within the major.
- Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.
- Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.


## 7. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 8. Total Semester Hours Required

To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.

SCIENCE EDUCATION - CHEMISTRY (B.S.)

## College of Education

Department of Instructional Programs and Educational Leadership, ED346, 407-823-2939
Coordinator: Aldrin Sweeney, ED105, 407-823-2561,
E-mail: asweeney @ pegasus.cc.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university

Have a minimum 2.5 overall GPA

- Pass four parts of the CLAST examination (no alternatives are accepted)
- Complete prerequisite courses


## Degree Requirements

Students should see an advisor

- The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II

| B. Cultural-Historical Foundations* | $(9 \mathrm{hrs})$ |  |
| :--- | :--- | :---: |
| AMH 2010 | U.S. History 1492-1877 | 3 hrs |
| AMH 2020 | U.S. History 1877-Present | 3 hrs |
| PHI 2010 | Introduction to Philosophy | 3 hrs |
| C. Mathematical Foundations* | $(6 \mathrm{hrs})$ |  |
| MGF 1106 | Finite Mathematics | 3 hrs |
| Select one: |  |  |
| STA 1060C | Basic Statistics using MS Excel or | 3 hrs |
| STA 2014C | Principles of Statistics | 3 hrs |
| D. Social Foundations | $(6 \mathrm{hrs})$ |  |
| POS 2041 | American National Government | 3 hrs |
| PSY 2013 | General Psychology | 3 hrs |
| E. Science Foundations | $(6 \mathrm{hrs})$ |  |
| PSC 1121 | Physical Science | 3 hrs |
| Select one: |  | 3 hrs |
| AST 2002 | Astronomy or |  |
| GEO 1200 | Physical Geography or |  |
| GLY 1030 | Geology and its Applications |  |

## 2. Common Program Prerequisites

(19 hrs)
A. Communications
(9 hrs)

ENC 1101 Composition I
GEP
ENC 1102 Composition II GEP
SPC 1600C Fundamentals of Oral Communication GEP
B. Humanities

PHI 2010 Introduction to Philosophy GEP

Select one:
3 hrs

ARH 2050 The History of Art I or
ARH 2051 The History of Art II or
MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
(9 hrs)
3 hrs

## GEP

GEP
STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History 1492-1877 GEP

AMH 2020 U.S. History 1877-Present
POS 2041 American National Government
PSY 2013 General Psychology
E. Science

BSC 2010C General Biology w/Lab
PSC 1121 Physical Science
One of the following (per GEP)
AST 2002 Astronomy or
GEO 1200 Physical Geography or
GLY 1030 Geology and its Applications
F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations 3 hrs
EME 2040 Intro to Educational Technology 3 hrs
G. Diversity Courses
H. Other Program Prerequisites

## GEP

GEP
GEP
( $9 \mathrm{hrs}+\mathrm{lab}$ )
4 hrs
GEP
GEP
(9 hrs)
3 hrs

GEP

AMH 2010
U.S. History

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to $\mathbf{2 0 0 0} \mathbf{- 0 1}$, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in Science Education-Chemistry take a series of core and specialization courses to prepare them to teach Biology in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Science Education major's program and to link theory to practice in actual school settings. Throughout the Science Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 5. Foreign Language Requirements

(0-8 hrs)
State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students
admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

Achieve a minimum 2.5 GPA in all courses within the major.
Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

- Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.


## 7. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 8. Total Semester Hours Required

To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.

SCIENCE EDUCATION - PHYSICS (B.S.)

## College of Education

Department of Instructional Programs and Educational Leadership, ED346, 407-823-2939
Coordinator: Aldrin Sweeney, ED 105, 407-823-2561
E-mail: asweeney@pegasus.cc.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university

Have a minimum 2.5 overall GPA

- Pass four parts of the CLAST examination (no alternatives are accepted)
- Complete prerequisite courses


## Degree Requirements

Students should see an advisor

- The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II

| B. Cultural-Historical Foundations* | (9 hrs) |  |
| :--- | :--- | :---: |
| AMH 2010 | U.S. History 1492-1877 | 3 hrs |
| AMH 2020 | U.S. History 1877-Present | 3 hrs |
| PHI 2010 | Introduction to Philosophy | 3 hrs |
| C. Mathematical Foundations* | $(6 \mathrm{hrs})$ |  |
| MAC 1105 | College Algebra | 3 hrs |
| Select one: |  |  |
| STA 1060C | Basic Statistics using MS Excel or | 3 hrs |
| STA 2014C | Principles of Statistics | 3 hrs |
| D. Social Foundations | $(6 \mathrm{hrs})$ |  |
| POS 2041 | American National Government | 3 hrs |
| PSY 2013 | General Psychology | 3 hrs |
| E. Science Foundations | $(6 \mathrm{hrs})$ |  |
| PHY 2048 | Physics for Engineers \& Scientists I | 3 hrs |
| Select one: |  | 3 hrs |
| AST 2002 | Astronomy or |  |
| GEO 1200 | Physical Geography or |  |
| GLY 1030 | Geology and its Applications |  |
| Note: See laboratory component under Section 2. |  |  |

## 2. Common Program Prerequisites

(21 hrs)
A. Communications
(9 hrs)

ENC 1101 Composition I
GEP
ENC 1102 Composition II GEP
SPC 1600C Fundamentals of Oral Communication GEP
B. Humanities

PHI 2010 Introduction to Philosophy GEP Select one: 3 hrs

ARH 2050 The History of Art I or
ARH 2051 The History of Art II or
MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics
(10 hrs)
MAC 1105 College Algebra
MAC 2311 Calculus with Analytic Geometry I
One of the following (per GEP) GEP

STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History 1492-1877 GEP

AMH 2020 U.S. History 1877-Present GEP
POS 2041 American National Government GEP
PSY 2013 General Psychology
E. Science

BSC 2010C General Biology w/Lab
PHY 2048 Physics for Engineers \& Scientists I
PHY 2048L Physics Lab for Eng. \& Scientists I One of the following (per GEP)

AST 2002 Astronomy or
GEO 1200 Physical Geography or
GLY 1030 Geology and its Applications
F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations
EME 2040 Intro to Educational Technology 3 hrs
G. Diversity Courses

## GEP

(10 hrs + lab)
4 hrs

## GEP

1 hr
GEP

3 hrs

## GEP

 (9 hrs)3 hrs

GEP

AMH 2010

U.S. History

## H. Other Program Prerequisites

See advisor

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to 2000-01, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in Science Education-Physics take a series of core and specialization courses to prepare them to teach Biology in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Science Education major's program and to link theory to practice in actual school settings. Throughout the Science Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 5. Foreign Language Requirements

State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

- Achieve a minimum 2.5 GPA in all courses within the major.
- Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.
- Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.


## 7. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 8. Total Semester Hours Required

## To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.

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Orlando, Florida
(407) 823-2000

SOCIAL SCIENCES (B.S.)

College of Arts and Sciences
Interdisciplinary program
http://www.cas.ucf.edu/soc_anthro/firstpage.html
Ms. J. Boyte, CNH 208407-823-2492

The Social Sciences program offers students an opportunity to become acquainted with the various fields of the Social Sciences and to better understand the relationships between those fields.
Satisfactory completion of the program leads to the degree Bachelor of Science with a major in Social Sciences.

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

Co-op and internship credit can not be used in this major
Students should consult with a program advisor

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 1105 College Algebra (or higher)

9 hrs
9 hrs

3 hrs
D. Social Foundations

Select ECO 2013 or POS 2041, depending on concentration to be followed

Select PSY 2013 or SYG 2000, depending on concentration to be followed 3 hrs
E. Science Foundations

3 hrs 6 hrs

## 2. Common Program Prerequisites

(6 hrs)
Select two lower level Social Science courses depending on disciplines selected. *Asterisk indicates appropriate courses.

## 3. Core requirements

(3 hrs)
Select one course
POS 3703 Scope and Meth of Political Sci
PSY 3214C Research Methods in Psychology
SYA 3300 Research Methods (Sociology)

## 4. Restricted Electives

Select a minimum of 15 semester hours in each of four Social Science disciplines.
Communication
COM 3311 Comm Research Methods 3 hrs
Select one course 3 hrs
RTV 3000 Foundations of Broadcasting
RTV 4403 Radio, Television and Society
JOU 3004 History of American Journalism
Select three more Communication courses 9 hrs
Economics


## 5. Departmental Exit Requirements

Maintain a minimum GPA of 2.0 in each of four Social Science disciplines
Computer Competency met by CGS 1060C

## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

Graduation: None.

## 7. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF
A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: Liberal Studies, Liberal Arts

Related Minors: Anthropology, Communication, Economics, Political Science, Psychology, Public Service Administration, Sociology

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements

Courses taken at community colleges do not substitute for Upper Division courses
Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- Any two introductory Social Sciences courses could meet admission requirements. However, the indicated courses are prerequisites for subsequent courses and must be taken.
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Orlando, Florida
(407) 823-2000

SOCIAL SCIENCE EDUCATION (B.S.)

## College of Education

Department of Instructional Programs and Educational Leadership, ED346, 407-823-2939
Coordinator: Bill Gaudelli, ED 224-21, 407-823-0215
E-mail: wgaudell@mail.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university
- Have a minimum 2.5 overall GPA
- Pass four parts of the CLAST examination (no alternatives are accepted)
- Complete prerequisite courses


## Degree Requirements

- Students should see an advisor

The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours

## 1. UCF General Education Program

A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II
(36 hrs)
(9 hrs)
3 hrs
3 hrs
SPC 1600C Fundamentals of Oral Communication 3 hrs
B. Cultural-Historical Foundations*

| AMH 2010 | U.S. History 1492-1877 | 3 hrs |
| :---: | :---: | :---: |
| AMH 2020 | U.S. History 1877-Present | 3 hrs |
| PHI 2010 | Introduction to Philosophy | 3 hrs |
| C. Mathemati | ical Foundations* | (6 hrs) |
| MGF 1106 | Finite Mathematics | 3 hrs |
| Select one: |  |  |
| STA 1060C | Basic Statistics using MS Excel or | 3 hrs |
| STA 2014C | Principles of Statistics | 3 hrs |
| D. Social Fou | undations | (6 hrs) |
| POS 2041 | American National Government | 3 hrs |
| PSY 2013 | General Psychology | 3 hrs |
| E. Science Fo | oundations | (6 hrs) |
| PSC 1121 | Physical Science | 3 hrs |
| Select one: |  | 3 hrs |
| ANT 2511 | The Human Species or |  |
| BSC 1005 | Biological Principles |  |
| Note: See laboratory component under Section 2. |  |  |
| 2. Common | Program Prerequisites | ( 25 hrs ) |
| A. Communications |  | (9 hrs) |
| ENC 1101 | 1 Composition I | GEP |
| ENC 1102 | 2 Composition II | GEP |
| SPC 1600C | Fundamentals of Oral Communication | GEP |
| B. Humanities |  | (6 hrs) |
| PHI 2010 | Introduction to Philosophy | GEP |
| Select one |  | 3 hrs |

MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics (9 hrs)

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History 1492-1877

AMH 2020 U.S. History 1877-Present
POS 2041 American National Government
GEP
GEP
GEP
E. Science

PSC 1121 Physical Science
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Select one:
GEO 1200 Physical Geography
GLY 1030 Geology and its Applications
Select one associated science lab: 1 hr
BSC 1005L Biological Principles Laboratory
GEO 1200L Physical Geography Laboratory
PSC 1121L Physical Science Laboratory
F. Education Courses

EDF 2005 Introduction to Education
(9 hrs + lab)
GEP
GEP

3 hrs
(12 hrs)

## GEP

GEP
3 hrs
U.S. History

AMH 2010
$\qquad$

EDG 2701 Teaching Diverse Populations 3 hrs
EME 2040 Intro to Educational Technology 3 hrs
G. Diversity Courses
H. Other Program Prerequisites

SYG 2000 General Sociology
ECO 2013 Principles of Economics

## GEP

 (6 hrs)3 hrs
3 hrs

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to 2000-01, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

Students majoring in Social Science Education take a series of core and specialization courses to prepare them to teach Biology in the schools and to demonstrate the Florida Educator Accomplished Practices. Early and continuous field experiences are provided to enhance the Social Science Education major's program and to link theory to practice in actual school settings. Throughout the Social Science Education program, students document and reflect upon their accomplishments in a Professional Portfolio, which is continuously reviewed by faculty.

## 4. Internships

In Internship I, students are assigned to a school with certified supervising teachers under the direction of a university coordinator. During the semester, students spend two full days per week in the field with half the time in an elementary setting and half in a secondary setting. Components of the experience include directed observation, collaborative planning, guided participation, and collaborative evaluation. Students are also enrolled in a limited number of related specialization courses during the experience.

In Internship II, students are assigned to a school with certified supervising teachers under the direction of a university coordinator five days a week for the entire semester, normally during the student's last semester. Students are permitted to enroll in other classes only with the consent of the Department Chair. the semester of student teaching is divided into four types of activities: observing, assisting, teaming, and teaching. Student teachers become involved with children as rapidly as possible, and gradually assume a full responsibility for the classroom to which they have been
assigned. As the experience draws to an end, the process should be reversed and supervising teachers take back their classes at convenient program breaks.

## 5. Foreign Language Requirements

(0-8 hrs)
State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

Achieve a minimum 2.5 GPA in all courses within the major.

- Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

Pass the Professional Education and Subject Area subtests of the Florida Teacher Certification Examination.

## 7. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 8. Total Semester Hours Required

## To be determined

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.
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Orlando, Florida
(407) 823-2000

## SOCIAL WORK (B.S.W.)

## College of Health and Public Affairs

HPA 204, 407-823-2114
Director: Mary Van Hook
Undergraduate Program Coordinator: Barbara Turnage
E-mail: bturnage@mail.ucf.edu
Web Address: http://www.cohpa.ucf.edu/social/

## Admission Requirements - LIMITED ACCESS

Acceptance to the University does not necessarily constitute admission to the upper division social work program. SEPARATE APPLICATION to the limited access program must be made to the School of Social Work. Students are admitted to the undergraduate program only in the Summer or Fall terms. To be considered for admission to the program, students must have:

- a 2.0 overall GPA
- an AA (from a Florida State Community College) or UCF General Education Program, Gordon Rule, and Clast
- 15 semester hours common program prerequisites (see Section 2 below for list of courses)

Personal qualifications reviewed for acceptance include intelligence, initiative, social concern, appreciation for human diversity, dependability, humanitarian interests in helping people and in improving human services as well as college-level reading and writing skills.

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog

Residency Requirement consists of at least 30 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF School of Social Work

Students should complete the General Education Program, UCF Foreign Language Admission and

- Students should consult with a school advisor
- The courses designated in sections 1 (general education) and 2 (common program prerequisites) below may be taken at a college or university other than UCF, and should usually be completed in the first 60 hours
- Students must earn a minimum grade of "C" (2.0) in major courses
- Students must have a minimum overall GPA of 2.5 for entry into field education (SOW 4510) and graduation in the major Social Work Program
- Students must complete all the requirements listed in 1-11 below


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Math
Select CGS 1060C Intro to Computer Science
D. Social Foundations

Select PSY 2013 and POS 2041
E. Science Foundations

Select BSC 1005
Select a listed science course

## 2. Common Program Prerequisites*

POS 2041 American Government
BSC 1005 Biology
ECO 2013 or ECO 2023 Economics
PSY 2013
SYG 2000
*See transfer notes

6 hrs
(36 hrs)
9 hrs
9 hrs
6 hrs

6 hrs
(6 hrs)
GEP
GEP
3 hrs
GEP
3 hrs
3. Core Requirements

SOW 3104 Assessing I: Human Development 3 hrs
SOW 3203 Social Welfare and Community
Resources
3 hrs
Social Work 3 hrs
SOW 3111 Assessing II: Human Systems 3 hrs

SOW 3352 Practice II: Interpersonal Skills in
Social Work Practice 3 hrs
SOW 3401 Social Work Research 3 hrs
SOW 3420 Social Work with Minorities 3 hrs

| SOW 4431 | Evaluating Social Work Practice |  |
| :--- | :--- | :--- |
|  | and Service Programs | 3 hrs |


| SOW 4232 | Social Welfare Policies and Issues | 3 hrs |
| :--- | :--- | :--- |
| SOW 4341 | Micro-level Roles and Interventions |  |
|  | in Social Work | 3 hrs |

SOW 4343 Macro-level Roles and Interventions
in Social Work 3 hrs
SOW $4510 \quad$ Field Education 9 hrs
SOW 4522 Field Education Seminar 3 hrs
4. Required Social Work Elective
3 hrs
5. Required Computer Science Elective

GEP

## 6. Electives

## 7. Foreign Language Requirements

Admissions: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:

## none

## 8. Foreign Culture or Cultural Diversity Requirement

Choose two of the following courses: ANT 3332, ANT 3360, ANT 3363, ANT 2410, ANT 3640, ASH 4404, ASH 4442, CPO 4303, HUM 3401, HUM 3417, HUM 3418, JST 3401, JST 3402, JST 3820, LAH 3130, LAH 3200, LAH 3400, LAH 3470, REL 3600, AMH 3561, AMH 3571, AMH 3586, ANT 3302, ANT 3311, ANT 3313, SOP 3724, SOP 3742, SPA 3621, SYD 3700 or see advisor.

## 9. Departmental Exit Requirements

(120 hours)
A minimum overall GPA of 2.5 with at least a grade of "C" (2.0) or higher in each social work course.

## 10. University Minimum Exit Requirements

## A UCF GPA of 2.0

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Related Programs: Criminal Justice, Psychology, Public Administration, Sociology.

Gerontology Certificate: In recognition of the special needs of the elderly citizens of Central Florida, the University offers a fifteen hour interdisciplinary program leading to a Certificate in Gerontology. If you are a non-social work student and planning your internship, check with your department's coordinator to plan for an internship in gerontology. The gerontology coordinator will also provide information for placement opportunities. The program may be of particular interest to students who are majoring in health sciences, psychology, social work, nursing, or sociology. Other students, such as those majoring in business, physical education, or art education may also find the program

Children's Services Certificate: The Children's Services Certificate is designed to prepare students to work with children and families who are facing issues of abuse or neglect, or are involved in some way with the child welfare system. Students learn to assess abuse and neglect and to develop appropriate ways to work with the families and elements of the child welfare system. The certificate includes both classroom academic work and a specialized field internship. The program is a joint effort between the Schools of Social Work in Florida and the Department of Children and Families to improve services to children and their families.

Related Minors: Health Services Administration, Gerontology, Psychology, Sociology

## Honors

Honors Option Requires:

- Completion of a three credit directed readings course
- Completion of a three credit thesis course

Open to students with a 3.5 GPA in Social Work
Cumulative UCF 3.2 GPA

- Completion of 60 semester hours of college credit, including 12 graded upper division hours at UCF


## Transfer Notes:

Community College Equivalent courses for prerequisites: any course in the following areas (3 hrs each)

American Government or American National Government Biology (Human Biology or Anatomy and Physiology) Economics (Microeconomics or Macroeconomics)

Introductory Psychology
Introductory Sociology/Social Problems
Computer Science

## Tentative Course Schedule for Entering Freshmen


Junior Year

| Fall | $\mathbf{1 5} \mathbf{~ h r s}$ | Spring | $\mathbf{1 5} \mathbf{~ h r s ~}$ |
| :--- | ---: | :---: | ---: |
| SOW 3104 | 3 | SOW 3111 | 3 |
| SOW 3203 | 3 | SOW 3352 | 3 |
| SOW 3300 | 3 | SOW 3401 | 3 |


| SOW Elective |  |  | SOW 3420 |
| :--- | :---: | :---: | :---: |
| Elective (if necessary) | 3 | Elective | 3 |

Senior Year

| Fall | $\mathbf{1 5} / \mathbf{1 8} \mathbf{~ h r s}$ | Spring | $\mathbf{1 3} \mathbf{~ h r s ~}$ |  |
| :--- | ---: | :--- | ---: | :--- |
| SOW 4232 | 3 | SOW 4510 |  |  |
| SOW 4341 | 3 | SOW 4522 |  |  |
| SOW 4343 | 3 | Elective | 3 |  |
| SOW 4431 | 3 |  | 1 |  |
| Elective | 3 |  |  |  |
| Elective (if necessary) | 3 |  |  |  |

SOCIOLOGY (B.A.)

College of Arts and Sciences
Department of Sociology and Anthropology, PH 403,
407-823-2227,
http://www.cas.ucf.edu/soc_anthro/firstpage.html

## E-mail: sociology@ucf.edu

J. Corzine, 407-823-2227

The Sociology curriculum emphasizes critical examination of various components of society. The purpose of the curriculum is to increase students' social awareness and their ability to employ a sociological perspective to interpret social institutions and behavior.

## Admission Requirements

none

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Departmental Residency Requirement: at least 30 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Sociology and Anthropology Department
- Students must maintain a UCF GPA of at least 2.0 in all courses used for the major

Students must have a "C" (2.0) or higher in all core courses

- Co-op or internship credit can not be used in this major
- Students should consult annually with a departmental advisor
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program
A. Communication Foundations 9 hrs
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 1105 College Algebra (or higher) 3 hrs
Select STA 2023 Statistical Methods I 3 hrs
D. Social Foundations

Select one: ECO 2013, ECO 2023, POS 20413 hrs
Select SYG 2000 General Sociology 3 hrs
E. Science Foundations 6 hrs

## 2. Common Program Prerequisites

none
(It is suggested that transfer students complete two lower-level courses with the prefix SYA, SYD, SYG, SYO, or SYP.)
3. Core requirements

| SYA 3300 | Research Methods | 4 hrs |
| :--- | :--- | :---: |
| SYA 3400 | Research Methods and Statistics | 4 hrs |
| SYA 4450 | Data Analysis | 4 hrs |
| SYG 2000 | General Sociology | 3 hrs |

Select one course
SYA 3110 Development of Social Thought
SYA 3120 Modern Sociological Thought
Select one course
SYO 3530 Social Stratification
SYP 4000 Sociological Social Psychology
(21 hrs)
4 hrs
4 hrs
4 hrs
3 hrs
3 hrs

3 hrs

## 4. Restricted Electives

(24 hrs)

| Select eight courses from the following |  |
| :---: | :---: |
| SYA 4650 | Applied Sociology |
| SYA 5625 | Proseminar |
| SYA 5937 | Advanced Population |
| SYD 3410 | Urban Sociology |
| SYD 3700 | Race \& Ethnic Minorities in the US |
| SYD 3800 | Sex Roles in Modern Society |
| SYD 4020 | Population |
| SYG 2010 | Social Problems |
| SYO 3000 | Modern Sociology |
| SYO 3360 | Social Organization \& Human Relations |
| SYO 3410 | Sociology of Mental Illness |
| SYO 3530 | Social Stratification |
| SYO 4100 | Family Trends |
| SYO 4200 | Sociology of Religion |
| SYO 4250 | Sociology of Education |
| SYO 4300 | Political Sociology |
| SYO 4400 | Medical Sociology |
| SYP 3300 | Collective Behavior |
| SYP 3400 | Social Change |
| SYP 3510 | Sociology of Deviant Behavior |
| SYP 3511 | Sociology of Murder |
| SYP 3520 | Criminology |
| SYP 3530 | Juvenile Delinquency |
| SYP 3540 | Sociology of Law |
| SYP 3551 | Sociology of Alcoholism |
| SYP 3602 | Sociology of Popular Music |
| SYP 3630 | Sociology of Popular Culture |

SYP 3650 Sociology and Sport

SYP 4000 Sociological Social Psychology
SYP 4004 Constructing Social Issues
SYP 4323 Social Systems and Diversity
SYP 4514 Sociology of Violence
SYP 4521 Criminal Victimization in Society
SYP 4536 Gangs and Society
SYP 4550 Sociology of Drug Abuse
SYP 4730 Sociology of Aging
SYP 4734 Minority Aging
SYP 4810 Women in Contemporary Society
SYP 5526 Sociological Criminology
SYP 5562 Seminar on Domestic Violence

- Eligible students may enroll for three to 16 semester hours of Internship in SYA 3940, SYA 4941, or SYA 5944.

Arrangements for Internships are coordinated by the Department and require prior approval.

- All special topics courses listed under the prefixes SYA, SYD, SYO, and SYP count toward the restricted electives requirement.


## 5. Departmental Exit Requirements

A minimum GPA of 2.0 in all courses used for the major
A minimum of "C" (2.0) in all core courses

- Computer Competency met by SYA 4450
- Students will be required to take a standard exit exam


## 6. Foreign Language Requirements

## (0-8 hrs)

Admission: Met by graduation requirement.
Graduation: Two semesters or equivalent proficiency exam and either a third semester/proficiency or an approved enhancement course. A list of approved enhancement courses is available from the department.

## 7. Electives

Select primarily from upper level courses, with departmental advisor's approval. These courses may be outside of the department.

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
120 hours

Related Programs: Anthropology, Criminal Justice

Related Minors: African-American Studies, American Studies, Anthropology, Anthropology in Multicultural Studies, Asian Studies, Canadian Studies, Judaic Studies, Latin American Studies, Russian Area Studies, Sociology, and Women's Studies

## Transfer Notes:

Grades below "C" (2.0) from other institutions do not meet departmental requirements
Courses taken at community colleges do not substitute for Upper Division courses

- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

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SPANISH (B.A.)

## College of Arts and Sciences

Department of Foreign Languages \& Literatures, CNH 523
http://pegasus.cc.ucf.edu/~forlang
E-Mail: foreignlanguage @ucf.edu
C. E. Stebbins, 407-823-2472

## Admission Requirements

none

## Placement in Language courses

- Placement in Foreign Language courses is based on one year of high school language being equivalent to one semester of college work. For example, four years of high school Spanish place the student in the first semester of the third year.
- Native Spanish speakers, near-native Spanish speakers, or students who have received advanced education abroad must substitute select classes.


## Degree Requirements

Students who change degree programs and select this major must adopt the most current catalog.
36 credits in Spanish must be taken at the 3000 level or above

- At least 6 of the 36 Spanish credits must be at the 4000 level

At least 30 hours must be taken in Foreign Language courses taught in Spanish
Students must earn at least a "C" (2.0) in each upper division Spanish course

- Departmental Residency Requirement consists of at least 18 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Foreign Languages and Literatures

Language credit by exam will not be given in courses lower in level than those in which students are presently enrolled. Native speakers will be allowed Credit by Examination in literature courses only.

Co-op or internship credit can not be used in this major

- Students must see their departmental advisor to obtain proper counseling and have their schedule approved before registering for courses in their major
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Prefer STA 1060C Statistics Using Excel
D. Social Foundations
E. Science Foundations

## 2. Common Program Prerequisites

SPN 1120* Elem Spanish Lang \& Civ I
SPN 1121* Elem Spanish Lang \& Civ II
SPN 2230* Interm Spanish Lang \& Civ I
SPN 2231* Interm Spanish Lang \& Civ II

* May be met by proficiency test or completion of SPN 2231


## 3. Core requirements

SPN 3300* Advanced Grammar
SPN 3420* Composition
SPN 3760* Adv Spanish Oral Comm
SPW 3100 \& 3101 Survey of Spanish Literature
or
( 15 hrs )
3 hrs
3 hrs
3 hrs

* A native or near-native Spanish speaker must substitute an alternate upper division Spanish course in consultation with a departmental advisor.


## 4. Upper Division Restricted Electives

Select two of the following
FOL 3730 Romance Philology
SPN 4801 Spanish Morphosyntax
SPN 4800 Spanish American Syntax
SPN 4780 Spanish Phonetics
Spanish literature beyond the survey level
(taught in Spanish)
Spanish courses

## (21 hrs)

6 hrs

6 hrs

9 hrs

## 5. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or higher in at least 36 hours of upper division Spanish courses
- Students are required to satisfactorily complete a departmental exit exam. The exam is offered each September and February; students should discuss the optimal test date with their advisor.
- Computer Competency met by CGS 1060C or equivalent


## 6. Foreign Language Requirements

(0-16 hrs)
Admission: Met by Graduation requirements.
Graduation: Met by Common Program Prerequisites.

## 7. Electives

(variable)
Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

## 120 hours

Related Programs: French, Foreign Language Combination

Related Minors: French, Italian, Judaic Studies, Latin American and Iberian Area Studies, Russian Area Studies, Spanish

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements.
- Courses taken at community colleges do not substitute for Upper Division courses.
- Courses transferred from private and out-of-state schools must be evaluated by the department chair for equivalency credit. The student must provide all supporting information.
- Native speakers, or students who have received advanced education in Spanish-speaking societies, may not take lower division Spanish courses. They must substitute Third-year level composition and conversation courses.
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STATISTICS - ACTUARIAL SCIENCE TRACK (B.S.)

College of Arts and Sciences
Department of Statistics, CC II 212, 407-823-5562
http://www.cas.ucf.edu/statistics

## E-mail: statistics@ucf.edu

L. Guo, 407-823-5532

## Admission Requirements

Students must apply for admission to the Actuarial Science Concentration by March 15 of the Spring semester two years prior to expected graduation. Transfer students expecting to graduate in less than two years should apply immediately upon admission to UCF.

## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.

All statistics courses except STA 2023, STA 3032, and those protected by Florida Common Course Numbering must be taken from, or approved by the Statistics Department at UCF

Departmental Residency Requirement: at least 15 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Statistics Department

- Students must earn at least a "C" (2.0) in each STA course
- A minimum 2.0 average is required in all computer science and mathematics courses that count toward a statistics major

Co-op or internship credit can not be used in this major

- Students should consult with a departmental advisor
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program
A. Communication Foundations
B. Cultural and Historical Foundations
C. Mathematical Foundations

Select MAC 2311 Calculus I
Select STA 2023 Statistical Methods I
D. Social Foundations

Select ECO 2013 Principals of Economics I
E. Science Foundations

Select BSC 2010C General Biology
Select PHY 2053C College Physics or
CHM 2045C Chemistry Fundamentals

## 2. Common Program Prerequisites

COP 3502C* Computer Science I
MAC 2311 Calculus I
MAC 2312 Calculus II
BSC 2010C* General Biology
*See Transfer Notes for possible substitutes

## 3. Core requirements

ACG 2021 Princ Financial Accounting
STA 2023 Statistical Methods I
STA $4321 \quad$ Statistical Theory I
STA $4322 \quad$ Statistical Theory II
MAP 4171 Optimization for Actuarial Science

STA 4676 Life Testing

| STA 4183 | Theory of Interest | 3 hrs |
| :---: | :---: | :---: |
| STA 4130 | Life Contingencies I | 3 hrs |
| STA 4131 | Life Contingencies II | 3 hrs |
| ECO 2013 | Principals of Economics I | GEP |
| ECO 2023 | Principals of Economics II | 3 hrs |
| COT 4500 | Numerical Calculus | 3 hrs |
| MAC 2313 | Calculus III | 3 hrs |
| ENC 3241 | Writing for Technical Professionals | 4 hrs |
| Select one co | ourse | (3 hrs) |
| MAS 3105 | Elementary Linear and Matrix Algebra |  |
| MAS 3106 | Linear Algebra |  |
| Select two courses and associated labs (inc. 4 hrs GEP )(4 hrs) |  |  |
| BSC 2011C | Biological Diversity |  |
| CHM 2045C Chemistry Fundamentals |  |  |
| CHM 2046 \& 2046L Chemistry Fundamentals II \& Lab |  |  |
| PHY 2053C College Physics I |  |  |
| PHY 2054C College Physics II |  |  |
| Select three from among the following: (9 hrs) |  |  |
| STA 4852 Applied Time Series |  |  |
| STA 4102 Computer Process of Stat Data |  |  |
| STA 4165 Statistical Methods II with Computer |  |  |
| STA 4164 Statistical Methods III |  |  |
| STA 4676 Life Testing Analysis |  |  |
| STA 4675 Demographic Statistics |  |  |
| STA 4641 Risk Theory and Decision |  |  |
| STA 4187 Theory of Graduation |  |  |
| STA 4999 Problems in Actuarial Science |  |  |
| (1 hr and may be taken at most three times) |  |  |


| STA 5139 | Credibility Theory and Loss Distributions |
| :--- | :--- |
| STA 5646 | Casualty Insurance |
| STA 5132 | Pension Actuarial Science |
| STA 5931 | Topics in Actuarial Science |

## 4. Restricted Electives

Select from upper division or graduate statistics, actuarial science, or mathematics courses Selected courses in business may be used but must first be approved by the Statistics Department

- MAC 2233, 2253, 2254; all MAE courses; and MHF 4404 may not be used


## 5. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or better in each STA course.
- Computer competency met by COP 3502C.


## 6. Foreign Language Requirements

(0-8 hrs)
Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 7. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

- A 2.0 UCF GPA
- 60 semester hours earned after CLEP awarded
- 48 semester hours of upper division credit completed (Note: Statistics majors may count MAC 2313 as upper division credit.)

30 semester hours in regular courses completed at UCF

A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted

Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

## Total Semester Hours Required

## 120 hours

Related Programs: Mathematics, Mathematics Education, Statistics

Related Minors: Statistics, Mathematics

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- COP 3502C*: any COP programming language course. However, COP 3502C is a prerequisite for Computer Sciences courses and may need to be taken.
- BSC 2010C*: any laboratory BSC, CHM, or PHY course. However this is a prerequisite for BSC 2011C and will need to be taken.

THEATRE (B.A.)

## College of Arts and Sciences

Department of Theatre, THE 120 407-823-2861
http://pegasus.cc.ucf.edu/~theatre
E-mail: theatre@ucf.edu
Rusnock, 407-823-2861

The Bachelor of Arts Degree is offered for students who do not plan to pursue the theatre as a profession. BA students may be interested in a Liberal Arts education or may eventually choose to pursue graduate studies in theatre.

## Admission Requirements

- Entrance into most theatre classes is restricted to majors. Exceptions must be approved by the Department Chair.
- The departmental faculty evaluate students desiring to become majors via an interview, audition and portfolio review. For complete information, contact the Department of Theatre.


## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Students must maintain a minimum "C" (2.0) overall Theatre GPA to continue in the major

Co-op or internship credit can not be used in this major
Students must consult with a departmental advisor

- Departmental Residency Requirement consists of at least 30 semester hours of regularly scheduled courses taken from the UCF Theatre Department

All theatre students must participate, in some capacity, on one of the three main-stage productions during both the Fall and Spring Semesters. Students failing to successfully participate will be placed on probation for one semester. Continued failure may result in being dropped as a major

- All Theatre students must include a participation credit course during every semester
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours


## 1. UCF General Education Program

A. Communication Foundations

Select SPC 1600C Fund Oral Communication
Select two semesters of English Composition
B. Cultural and Historical Foundations

Select one two semester sequence
Select THE 2000 Survey of Theatre
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Select CGS 1060C Intro to Computer Sci or
CGS 2100C Computer Fund for Business
D. Social Foundations
E. Science Foundations

## 2. Common Program Prerequisites

THE 2000* Survey of Theatre
THE 3305* Dramatic Literature I
THE 2090* Theatre Production/Perform I
TPA 2290* Theatre Production/Perform I
TPA 2210* Stagecraft I
(36 hrs)
9 hrs
3 hrs
6 hrs
9 hrs
6 hrs
3 hrs 6 hrs

3 hrs

3 hrs 6 hrs 6 hrs
( 12 hrs )
GEP
3 hrs
1 hr
1 hr
3 hrs
TPP 2190* Theatre Production/Perform I 1 hr
TPP 2110* Acting I - Introduction 3 hrs *See Transfer Notes for possible substitutes

| 3. Core requirements | ( $\mathbf{1 9} \mathbf{~ h r s ) ~}$ |  |
| :--- | :--- | :---: |
| THE 3110 | Theatre History I | 3 hrs |
| THE 3111 | Theatre History II | 3 hrs |
| THE 3303 | Play Analysis | 3 hrs |
| THE 3306 | Dramatic Literature II | 3 hrs |
| TPP 3310C | Directing I | 3 hrs |
| THE 4093 | Theatre Production/Perf IV | 1 hr |
| THE 4094 | Theatre Production/Perf V | 1 hr |
| THE 4096 | Theatre Production/Perf VI | 1 hr |
| THE 4097 | Theatre Production/Perf VII | 1 hr |

## 4. Restricted Electives

(12 hrs)
Select 12 hours from the following

THE 3230 Cultural Diversity - Theatre 3 hrs
THE 3243 Musical Theatre Survey 3 hrs
THE 5307 Contemporary Theatre Practice 3 hrs
THE 4372 Drama of Tennessee Williams 3 hrs
TPA 3043C Costume History I 3 hrs
TPA 3197 Summer Theatre Studio/Tech/Design 3 hrs
TPA 3295 Theatre Studio/Tech/Design 3 hrs
TPA 3601 Stage Management 3 hrs
TPA 3044C Costume History II 3 hrs
TPA 4400 Theatre Management
TPP 3197 Summer Theatre/Performance 3 hrs

## 5. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or better in each Theatre course
- Take a Departmental Exit Examination and write a critique of a theatre production
- Computer Competency met by computer science course


## 6. Foreign Language Requirements

Admission: Met by graduation requirement
Graduation: Two semesters or equivalent proficiency exam.

## 7. Electives

Select primarily from upper level courses, with departmental advisor's approval. May be outside of the department.

## 8. University Minimum Exit Requirements

## - A 2.0 UCF GPA

- 60 semester hours earned after CLEP awarded
- 48 semester hours of upper division credit completed
- 30 semester hours in regular courses completed at UCF
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit.

The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- THE 2000*: may use any introductory course. However, THE 2000 is a prerequisite for all Theatre courses and will still need to be taken.
- THE 3305*: may use THE 2300
- THE 2090*: may use THE 2925
- TPA 2290*: may use TPA 1290
- TPP 2190*: may use TPP 1190

TPP 2110*: may use TPP 2210 or THE 2271

- TPA 2210*: may use THE 2261

THEATRE (B.F.A.)

## College of Arts and Sciences

Department of Theatre, THE 120 407-823-2861

## http://pegasus.cc.ucf.edu/~theatre

E-mail: theatre@ucf.edu
Rusnock, 407-823-2399

The Bachelor of Fine Arts Degree is offered for students who, upon graduation, plan to pursue a specialized career in professional theatre. It provides the student with a very structured and intensive career preparation in either performance, stage management, or design/tech. The BFA is also an excellent degree for students who are interested in pursuing graduate studies in theatre. Work within the BFA program requires energy and dedication; therefore, other part-time study or outside employment is generally impossible. BFA standards are high, both for admission and for continuation in the program. Casting, crew, and design assignments are regulated to serve the artistic growth of students coordinating production experience with classroom exploration.

## Admission Requirements

- Entrance into most theatre classes is restricted to majors. Exceptions must be approved by the Department Chair.
- The departmental faculty evaluates students desiring to become majors via an interview, audition, and portfolio review. For complete information, contact the Department of Theatre.
- A performance major must be interviewed and perform two three minute monologues of contrasting styles

Performance majors interested in musical theatre should prepare a ballad, with taped musical accompaniment, in addition to their monologues

- Design/Tech track requires an interview and portfolio review.
- The portfolio should contain no more than fifteen examples of the student's best work representing a variety of mediums. Three-dimensional pieces can be submitted in slide format. For details, contact
the Department of Theatre.
- All students must submit a resume, black and white head shot, three letters of recommendation, and transcripts of previous college work at the time of interview


## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog. Students must maintain a minimum "B" (3.0) overall Theatre GPA to continue in the major Theatre grades of less than "C" (2.0) will not be counted Continuation in the BFA program requires a positive annual evaluation Co-op or internship credit can not be used in this major Students must consult with a departmental advisor

Departmental Residency Requirement consists of 60 semester hours of regularly scheduled courses taken from the UCF Theatre Department

All theatre students should participate, in some capacity, on two of the three main-stage productions during both Fall and Spring semesters. Students failing to successfully participate will be placed on probation for one semester. Continued failure may result in being dropped as a major

All theatre students must include a participation credit course during every semester

- All BFA performance majors are required to audition for all Fall and Spring productions and must accept the rolls assigned
- Due to the conservatory nature, the BFA demands a closely integrated curriculum. Therefore, transfer students are not generally encouraged to pursue a BFA program. However, exceptionally talented students who have completed the General Education Program and the Common Program Prerequisites before transferring within the Florida Public University/ Community College System may be admitted.
- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program
A. Communication Foundations

Select SPC 1600C Fund Oral Communication
Select two semesters of English Composition
(36 hrs)

3 hrs
6 hrs
B. Cultural and Historical Foundations

Select one 2 semester sequence
Select THE 2000 Survey of Theatre
C. Mathematical Foundations

Select MGF 1106 Finite Mathematics
(may substitute a higher level math)
Prefer CGS 1060C Intro to Computer Sci or
CGS 2100C Computer Fund for Business
D. Social Foundations
E. Science Foundations
2. Common Program Prerequisites
THE 2000* Survey of Theatre GEP

THE 3305* Dramatic Literature I 3 hrs
THE 2090* Theatre Production/Performance I 1 hr
TPA 2290* Theatre Production/Performance I 1 hr TPA 2210* Stagecraft I 3 hrs

TPP 2190* Theatre Production/Performance I 1 hr
TPP 2110* Acting I - Introduction 3 hrs
*See Transfer Notes for possible substitutes

## 3. Core Requirements (all tracks except Musical (18 hrs)

## Theatre)

TPA 2211 Stagecraft II 3 hrs
TPP $3650 \quad$ Script Analysis 3 hrs
THE 3306 Dramatic Literature II 3 hrs

| THE 3110 | Theatre History I | 3 hrs |
| :--- | :--- | :---: |
| THE 3111 | Theatre History II | 3 hrs |
| TPP 3310C | Directing I | 3 hrs |

4. Specialization: select one area

Performance Specialization

DAA 2200C Ballet I 3 hrs
TPP 2710C Voice Production I 2 hrs
TPP 3172C Acting III - Characterization 3 hrs
TPP 4193 Thea. Prod./ Perf. IV 1 hr
TPP 4194 Thea. Prod./ Perf. V 1 hr
DAA 2201C Ballet II 3 hrs
TPP 3512C Stage Combat 2 hrs
TPP 3257 Music Thea. Voice I 2 hrs
TPP 3258 Musical Theatre Voice II 2 hrs
TPP 3711C Voice Production II 2 hrs
TPP 3712C Voice Production III 2 hrs
TPP 3730C Voice Production IV 2 hrs
TPP 4140C Acting IV - Studio 3 hrs
TPP 4142C Acting V - Verse 3 hrs
TPP 4265C Acting for TV/Film 3 hrs
TPP 4531C Period Movement 2 hrs
TPP 4940 Theatre Performance Internship 6 hrs
TPA 2248C Makeup Techniques 2 hrs
TPP 3223 Marketing Yourself in Theatre 3 hrs
DAA 2570C Theatre Jazz Dance 3 hrs
Restricted electives (see list of courses)
(60 hrs)

3 hrs

7 hrs

## Stage Management Specialization

SPC 3425C Group Interaction \& Decision Making 3 hrs
TPA 4602 Advanced Stage Management 2 hrs
TPA 4400 Theatre Management 3 hrs

TPP 2170C Acting II - Fundamentals 3 hrs
TPA 2220 Stage Lighting 3 hrs
TPA 2248C Makeup Techniques 2 hrs
TPA 3060 Scene Design I 3 hrs
TPA 3216C Stagecraft III 3 hrs
TPA 3208 Theatre Drafting 2 hrs
TPA 3221 Lighting Design 3 hrs
TPA 3230 Costume Construction 3 hrs
TPA 3197 Summer Theatre Tech 3 hrs
TPA 3295 Theatre Studio Tech 3 hrs
TPA 4294 Thea. Prod./ Perf. IV 1 hr
TPA 4295 Thea. Prod./ Perf. V 1 hr
TPA 3601 Stage Management 2 hrs
TPA 3260 Sound Design for Theatre 3 hrs
TPA 4940 Design/Tech Internship 6 hrs
TPP 3223 Marketing Yourself in Theatre 3 hrs
ART 2201C Design Fundamentals I
or or 3 hrs
ART 2300C Drawing Fundamentals I
Restricted electives (see list of courses) 5 hrs

## Design//Tech Specialization

TPA 2220 Stage Lighting 3 hrs
TPA 3040 Costume Design 3 hrs

| TPA 3043C | Costume History I | 3 hrs |
| :---: | :---: | :---: |
| TPA 3044C | Costume History II | 3 hrs |
| TPA 3060 | Scene Design I | 3 hrs |
| TPA 3061 | Scene Design II | 3 hrs |
| TPA 3077 | Scene Painting | 2 hrs |
| TPA 3216C | Stagecraft III | 3 hrs |
| TPA 3208 | Theatre Drafting | 2 hrs |
| TPA 3221 | Lighting Design | 3 hrs |
| TPA 3197 | Summer Theatre Tech | 3 hrs |
| TPA 3295 | Theatre Studio Tech | 3 hrs |
| TPA 3230 | Costume Construction | 3 hrs |
| TPA 3250 | Cadd for Theatre | 2 hrs |
| TPA 3251 | Advanced CADD for Theatre | 2 hrs |
| TPA 4294 | Thea. Prod./ Perf. IV | 1 hr |
| TPA 3260 | Sound Design for Theatre | 3 hrs |
| TPA 4940 | Technical Theatre/Design Internship | 6 hrs |
| TPP 3223 | Marketing Yourself in Theatre | 3 hrs |
| ART 2201C | Design Fundamentals I |  |
| or | or 3 |  |
| ART 2203C | Design Fundamentals II |  |
| ART 2300C | Drawing Fundamentals I |  |
| or | or |  |
| ART 2301C | Drawing Fundamentals II |  |
| Restricted ele | ectives (see list of courses) | 0 hrs |

## 5. Restricted Electives

(see specializations)
Chosen from the following
THE 3230 Cultural Diversity - Theatre 3 hrs

THE 3243 Musical Theatre Survey 3 hrs
THE 5307 Contemporary. Thea. Prac. 3 hrs
THE 4372 Drama of Tenn. Williams 3 hrs
TPA 3197 Summer Theatre Studio/Tech/Design 3 hrs
TPA 3295 Theatre Studio/Tech/Design 3 hrs
TPA 3601 Stage Management 3 hrs
TPA 4400 Theatre Management 3 hrs
TPP 3197 Summer Theatre Perform. 3 hrs
TPP 3952 Studio Performance 3 hrs

## 6. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or better in each Theatre course
- Take a Departmental Exit Examination
- Computer Competency met by Computer Science courses


## 7. Foreign Language Requirements

 (0-8 hrs)Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:
none

## 8. Electives

none

## 9. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
32 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## Total Semester Hours Required

Related Programs: Film, Music, Theatre BA

Related Minors: Music, Theatre

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- THE 2000*: may use any introductory course. However, THE 2000 is a prerequisite for all theatre courses and must be taken.

THE 3305*: may use THE 2300
THE 2090*: may use THE 2925
TPA 2290*: may use TPA 1290
TPP 2190*: may use TPP 1190
TPP 2110*: may use TPP 2210 or THE 2271
TPA 2210*: may use THE 2261

THEATRE - MUSICAL THEATRE TRACK (B.F.A.)

## College of Arts and Sciences

Department of Theatre, THE 120 407-823-2861

## http://pegasus.cc.ucf.edu/~theatre

E-mail: theatre@ucf.edu
Earnest, 407-823-5744

The Bachelor of Fine Arts Track in Musical Theatre has been developed to serve those students interested in a career in the entertainment industry and the musical theatre stage. It is offered for students who, upon graduation, plan to pursue a specialized career in professional theatre.

Because of its geographic location, UCF is a top choice for students interested in musical theatre. Disney, Universal, and the budding expansion of the arts in Central Florida make it necessary for students to receive advanced studies in acting, musical theatre voice, and dance.

Work within the BFA program requires energy and dedication; therefore, other part-time study or outside employment is generally impossible. BFA standards are high, both for admission and for continuation in the program. Casting, crew, and design assignments are regulated to serve the artistic growth of students coordinating production experience with classroom exploration.

## Admission Requirements

- Entrance into most theatre classes is restricted to majors. Exceptions must be approved by the Department Chair.
- The departmental faculty evaluates students desiring to become majors via an interview, audition, and portfolio review. For complete information, contact the Department of Theatre.
- A performance major must be interviewed and perform two three minute monologues of contrasting styles

Performance majors interested in musical theatre should prepare a ballad, with taped musical
accompaniment, in addition to their monologues
Design/Tech track requires an interview and portfolio review.

- The portfolio should contain no more than fifteen examples of the student's best work representing a variety of mediums. Three-dimensional pieces can be submitted in slide format. For details, contact the Department of Theatre.
- All students must submit a resume, black and white head shot, three letters of recommendation, and transcripts of previous college work at the time of interview


## Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Students must maintain a minimum "B" (3.0) overall Theatre GPA to continue in the major

Theatre grades of less than "C" (2.0) will not be counted
Continuation in the BFA program requires a positive annual evaluation
Co-op or internship credit can not be used in this major
Students must consult with a departmental advisor
Departmental Residency Requirement consists of 60 semester hours of regularly scheduled courses taken from the UCF Theatre Department

- All theatre students should participate, in some capacity, on two of the three main-stage productions during both Fall and Spring semesters. Students failing to successfully participate will be placed on probation for one semester. Continued failure may result in being dropped as a major
- All theatre students must include a participation credit course during every semester
- All BFA performance majors are required to audition for all Fall and Spring productions and must accept the rolls assigned

Due to the conservatory nature, the BFA demands a closely integrated curriculum. Therefore, transfer students are not generally encouraged to pursue a BFA program. However, exceptionally talented students who have completed the General Education Program and the Common Program Prerequisites before transferring within the Florida Public University/ Community College System may be admitted.

- Courses designated in 1 (General Education Program) and 2 (Common Program Prerequisites) are usually completed in the first 60 hours

1. UCF General Education Program
A. Communication Foundations
(36 hrs)
9 hrs

| Select SPC 1600C Fund Oral Communication | 3 hrs |
| :--- | :---: |
| Select two semesters of English Composition | 6 hrs |
| B. Cultural and Historical Foundations | 9 hrs |
| Select one 2 semester sequence | 6 hrs |
| Select THE 2000 Survey of Theatre | 3 hrs |
| C. Mathematical Foundations | 6 hrs |
| Select MGF 1106 Finite Mathematics | 3 hrs |
| (may substitute a higher level math) |  |
| Prefer CGS 1060C Intro to Computer Sci or | 3 hrs |
| CGS 2100C Computer Fund for Business |  |
| D. Social Foundations | 6 hrs |
| E. Science Foundations | 6 hrs |

## 2. Common Program Prerequisites

THE 2000* Survey of Theatre GEP
THE 3305* Survey of Dramatic Literature I 3 hrs
THE 2090* Theatre Production/Performance I 1 hr

TPA 2290* Theatre Production/Performance I 1 hr TPA 2210* Stagecraft I 3 hrs
TPP 2190* Theatre Production/Performance I 1 hr
TPP 2110* Acting I - Introduction 3 hrs
*See Transfer Notes for possible substitutes
3. Specialization: Lower Division

MUT 1001 Music Fundamentals I
MUT 1002 Music Fundamentals II
TPP 2170C Acting II - Fundamentals
DAA 2200C
Ballet I

| DAA 2201C | Intermediate Classical Ballet | 3 hrs |
| :--- | :--- | :---: |
| DAA 2570C | Jazz Dance I | 3 hrs |
| DAA 2571C | Jazz Dance II | 3 hrs |
| DAA 2520 | Theatre Tap Dance I | 3 hrs |

## 4. Specialization: Upper Division

TPP 3172C Acting III - Characterization 3 hrs
TPP 3730C Voice Production IV 2 hrs
TPP 3250 Musical Theatre Acting Perf I 3 hrs
TPP 3252 Musical Theatre Acting Perf II 3 hrs
TPP 4253 Musical Theatre Acting Perf III 3 hrs
TPP 4254 Musical Theatre Acting Perf IV 3 hrs
TPP 3241 Survey of Musical Theatre I 3 hrs
TPP 4242 Survey of Musical Theatre II 3 hrs
TPP 3223 Theatre Careers 3 hrs
TPP 4531C Period Movement 2 hrs
TPP 3512C Stage Combat 2 hrs
TPP 4255 Musical Theatre Cabaret 3 hrs
TPA 2248C Make-up Techniques 2 hrs
THE 3110 Theatre History I 3 hrs
TPP 3310C Directing I 3 hrs
TPP 4193 Theatre Production/Performance IV 1 hrs
TPP 4194 Theatre Production/Performance V 1 hrs
TPP 4195 Theatre Production/Performance VI 1 hrs
TPP 3257 Musical Theatre Voice I 2 hrs
TPP 3258 Musical Theatre Voice II 2 hrs
TPP 4940 Internship 6 hrs

## 5. Departmental Exit Requirements

Earn a grade of "C" (2.0) or better in each Theatre course
Take a Departmental Exit Examination

- Computer Competency met by Computer Science courses


## 6. Foreign Language Requirements

Admission: Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation:

## 7. Electives

none
none

## 8. University Minimum Exit Requirements

A 2.0 UCF GPA
60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
32 semester hours in regular courses completed at UCF

- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)

Total Semester Hours Required
129 hours

Related Programs: Film, Music, Theatre BA

Related Minors: Music, Theatre

## Transfer Notes:

- Grades below "C" (2.0) from other institutions do not meet departmental requirements
- Courses taken at community colleges do not substitute for Upper Division courses
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for common program prerequisites if taken prior to transferring to UCF:

- THE 2000*: may use any introductory course. However, THE 2000 is a prerequisite for all Theatre courses and will still need to be taken.
- THE 3305*: may use THE 2300 or THE 3303 or TPP 3650
- THE 2090*: may use THE 2925
- TPA 2290*: may use TPA 1290

TPP 2190*: may use TPP 1190
TPP 2110*: may use TPP 2210 or THE 2271

- TPA 2210*: may use THE 2261
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VOCATIONAL EDUCATION AND INDUSTRY TRAINING (B.S.)

## College of Education

Department of Instruction Programs and Educational Leadership, ED346, 407-823-2939
Coordinator: Larry Hudson, ED157, 407-823-2848,
E-mail: hudson@mail.ucf.edu
Web Address: http://www.edcollege.ucf.edu/

## Admission Requirements

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from an approved Florida community college or state university

Have a minimum 2.5 overall GPA

- Pass four parts of the CLAST examination (no alternatives are accepted)
- Complete prerequisite courses


## Degree Requirements

- Students should see an advisor

The courses designated in 1 (General Education) and 2 (Common Program Prerequisites) should usually be completed in the first 60 hours

## 1. UCF General Education Program

A. Communication Foundations

ENC 1101 Composition I
ENC 1102 Composition II
(36 hrs)
(9 hrs)
3 hrs
3 hrs
SPC 1600C Fundamentals of Oral Communication 3 hrs
B. Cultural-Historical Foundations*
AMH 2010 U.S. History 1492-1877 ..... 3 hrs
AMH 2020 U.S. History 1877-Present ..... 3 hrs
PHI 2010 Introduction to Philosophy ..... 3 hrs
C. Mathematical Foundations* ..... (6 hrs)
MGF 1106 Finite Mathematics ..... 3 hrs
Select one:
STA 1060C Basic Statistics using MS Excel or ..... 3 hrs
STA 2014C Principles of Statistics ..... 3 hrs
D. Social Foundations ..... (6 hrs)
POS 2041 American National Government ..... 3 hrs
PSY 2013 General Psychology ..... 3 hrs
E. Science Foundations ..... (6 hrs)
PSC 1121 Physical Science ..... 3 hrs
Select one: ..... 3 hrs
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Note: See laboratory component under Section 2.
2. Common Program Prerequisites
(34 hrs)
Note: The College of Education is requesting an exemption from these requirements for those students not seeking teacher certification from the Florida Board of Education.

## A. Communications

ENC 1101 Composition I
ENC 1102 Composition II
SPC 1600C Fundamentals of Oral Communication GEP

## B. Humanities

PHI 2010 Introduction to Philosophy GEP
Select one:
(9 hrs)

## GEP

GEP (6 hrs) 3 hrs
ARH 2050 The History of Art I or
ARH 2051 The History of Art II or

MUL 2010 Enjoyment of Music or
THE 1020 Theatre Survey or
FIL 1001 Cinema Survey
C. Mathematics (9 hrs)

MAC 1105 College Algebra
MGF 1106 Finite Mathematics
One of the following (per GEP)
STA 1060C Basic Statistics using MS Excel or
STA 2014C Principles of Statistics
D. Social Science/History 1492-1877 GEP

AMH 2020 U.S. History 1877-Present
POS 2041 American National Government
GEP
GEP
PSY 2013 General Psychology
E. Science

PSC 1121 Physical Science
One of the following (per GEP)
ANT 2511 The Human Species or
BSC 1005 Biological Principles
Select one: 3 hrs
GEO 1200 Physical Geography
GLY 1030 Geology and its Applications
Select one associated science lab: 1 hr
BSC 1005L Biological Principles Laboratory
GEO 1200L Physical Geography Laboratory
PSC 1121L Physical Science Laboratory
F. Education Courses

EDF 2005 Introduction to Education
EDG 2701 Teaching Diverse Populations
(9 hrs)
3 hrs
3 hrs

AMH 2010
U.S. History

GEP
(9 hrs +lab )
GEP
GEP

AST 2002
Astronomy

EME 2040 Intro to Educational Technology 3 hrs
G. Diversity Courses
H. Other Program Prerequisites

GEP
(15 hrs)

See advisor

Due to the revision of State Board of Education Rule 6A-5.066, specific upper level requirements and the total program hours were not finalized at the time this catalog was published. Resultant changes in upper level requirements will affect all new students except Florida public institution AA transfers admitted Fall 2000 and beyond, and will be in place by Fall 2002. Note: Students who entered in catalog years prior to $2000-01$, who break catalog year, will be required to complete requirements in effect at the time they reenter the program. For specific program of study information, consult the College of Education website: http://www.edcollege.ucf.edu/ or the Office of Student Services (ED 109, 407-823-3723).

## 3. Specialization Requirements

This degree prepares people to be vocational teachers in schools, technical institutes or community colleges and technical trainers in business or industry. Consider this degree if:
a. you have a goal to teach an occupation to others or
b. train adults in a technical area or
c. provide general knowledge of a work area.

Additionally you may prefer this degree if:
a. you have years of work experience making you an "expert" in
a field or
b. have achieved state or national certification, licensure or
registration or
c. completed coursework in a specific area after high school.

The degree is built upon previous occupational specialization, or expertise in a specific work technical area. All upper division courses are on-line over the World Wide Web, thus you may participate in courses from anywhere in the world, with access to the Internet through a computer. Most students are adults with life's responsibilities and are enrolled part-time. Visit the Website at http://reach.ucf.edu/~voced.

## 4. Directed Field Experience

This practicum is intended to be the culminating event in the BS degree. Students intern in settings appropriate to their professional goals such as schools, technical institutes, colleges, businesses and industries, and even on the Web. Faculty assist, support, and evaluate progress during the time allotted. Students can schedule the directed field experience over 1-2 semesters at 6-12 semester credit hours for each semester. Permission of your advisor is required for registration.

## 5. Foreign Language Requirements

State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

## 6. Departmental Exit Requirements

Achieve a minimum 2.5 GPA in all courses within the major.
Complete a portfolio according to program guidelines. This portfolio requires demonstration of professional growth, reflection, and proficiency in the 12 Florida Educator Accomplished Practices.

## 7. University Minimum Exit Requirements

## A 2.0 UCF GPA

60 semester hours earned after CLEP awarded
48 semester hours of upper division credit completed
30 semester hours in regular courses completed at UCF

- Complete the General Education Program, the Gordon Rule, the CLAST and nine hours of Summer credit (if applicable)


## 8. Total Semester Hours Required

## Transfer Notes:

Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information. Students transferring from a Florida Public Community College are cautioned to pay careful attention to the General Education and Common Program Prerequisites sections because the revision of State Board of Education Rule 6A-5.066 has made programs highly prescriptive, which may result in additional coursework to satisfy degree requirements.

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Minors, Certificates, and Study Abroad

Minors are authorized only for certification with baccalaureate degrees. Minors must be indicated on the Intent to Graduate card and must be certified at the same time as the student's baccalaureate degree. Unless a second baccalaureate degree is earned, certification will not be made at a later time even if additional courses have been completed.

If you plan to graduate with a minor, have that minor added to your audit during the Early Registration period. Contact the undergraduate records office of the college offering the minor for more information. All graduation requirements must be from a single UCF catalog for which a student is eligible. Minors offered are:

- Aerospace Studies
- African - American Studies
- American Studies
- Anthropology
- Anthropology in Multicultural Studies
- Art History
- Art-Studio
- Asian Studies
- Biology
- Business
- Chemistry
- Children's Services Certificate
- Communicative Disorders
- Community Arts - PAVE
- Computer Information Technology
- Computer Science
- Computer Science - Applied
- Criminal Justice
- Digital Media
- e-Business
- Economics
- English - Creative Writing
- English - Linguistics
- English - Literature
- English - Technical Writing and Editing
- English - Writing
- Environmental Studies
- Exceptional Education
- Film-Cinema Studies
- French
- German
- Gerontology Certificate
- Gerontology
- Health Sciences
- Health Services Administration
- History
- Hospitality Management
- Humanities
- International Business
- Interpersonal Communication
- Italian
- Jazz Studies
- Judaic Studies
- Latin American Area Studies
- Legal Studies
- Magazine Journalism
- Marketing
- Marketing Certificates
- Marketing Track - International Business
- Mass Communication
- Mathematics
- Military Science
- Molecular Biology and Microbiology
- Music
- Music Composition Certificate
- Music Technology Certificate
- Non-Profit Management Certificate
- North American Indian Studies
- Organizational Communication
- Philosophy
- Physics
- Political Science
- Political Science/Prelaw
- Psychology
- Public Administration
- Religious Studies
- Russian Area Studies
- Social Sciences - Interdisciplinary
- Sociology
- Space Studies
- Spanish
- Statistics
- Technology and Society
- Theatre - General
- Translation and Interpretation
- Women's Studies
- Women's Studies Certificate

Additional UCF Programs
Foreign Study Abroad Program
Canada
Germany
Italy
Spain

## English Study Abroad Program

## England

## Ireland

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Orlando, Florida
(407) 823-2000

AEROSPACE STUDIES: Minor
College of Engineering and Computer Science
Department of Aerospace Studies, EN 281
Lt Col Carol Lynn Judge, 407-823-1247

## Credit Hour Requirements 16 hours

Required Courses ( $\mathbf{1 6 ~ h r ) ~}$
AFR 1101 The Air Force Today I 1 hr
AFR 1111 The Air Force Today II 1 hr
AFR 2130 The Development of Air Power I 1 hr
AFR 2131 The Development of Air Power II 1 hr AFR 3220 Air Force Leadership and Mngmnt I 3 hrs

AFR 3230 Air Force Evaluation and Mngmnt II 3 hrs
AFR 4201 Nat Scrty Forces in Cont Am Soc I 3 hrs
AFR 4210 Nat Scrty Forces in Cont An Soc II 3 hrs

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
- At least 12 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship or Independent Study credit can not be used toward the minor.


## College of Arts and Sciences

## African American Studies Program, CNH 201

http://www.cas.ucf.edu/african_studies
Gladstone Yearwood, 407-823-0026

The African American Studies minor is designed to complement a student's major area of study. The minor requires a core of African American Studies courses as well as a selection of directed electives Fine Arts, History, English, Foreign Languages and Literatures, Political Science, Psychology, Sociology, Anthropology, Film, and Theatre.

## Credit hour Requirements $\mathbf{1 8}$ hours

## Required Courses ( 6 hrs)

AFA 3104 The African American Experience 3 hrs
AMH 3571 Black American History I 3 hrs

## Restricted Electives ( $\mathbf{1 2} \mathbf{~ h r s}$ )

AFA 3955 Study Abroad in the Caribbean
AML 3614 Topics in African-American Literature
ARH 3520 African Art
ARH 5933 Seminar in African \& African-American Arts
INR 3253 International Politics of Africa
FIL 3412 Black Cinema
LAH 3470 History of the Caribbean
MUL 2016 Evolution of Jazz
PUP 3314 Minorities in American Politics
SOP 3724 The Psychology of Racial Prejudice
SYD 3700 Race and Ethnic Minorities in the U.S.
Additional courses may be used only with the prior permission of the program Director.
Other Requirements
A minimum GPA of 2.0 is required in all courses used to satisfy the minor.

Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
At least 12 hours used in the minor must be earned at UCF
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, Co-op, or Independent Study credit can not be used toward the minor.

## AMERICAN STUDIES: Minor

College of Arts and Sciences
Dean's Office, CAS 190
J. Fernandez, 407-823-2573

Credit Hour Requirements 21 hours
Required Courses ( 9 hrs )
Select one course in each category
Literature and Humanities
AML 3031 American Literature I
AML 4101 American Novel
AML 4261 Literature of the South
LIT 3354 Ethnic Literature in America
Social Sciences
POS 3413 The American Presidency
POT 3204 American Political Thought
SYD 3700 Race and Ethnic Minorities in the U.S.
SYP 3630 Sociology of Popular Culture
History
AMH 3561 Women in American History I
AMH 4311 American Culture I
AMH 4313 American Culture II

## Restricted Electives ( $\mathbf{1 2} \mathbf{~ h r s )}$

Courses chosen from the list of approved courses
(available from the American Studies advisor).

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

At least 15 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the minor.


## ANTHROPOLOGY: Minor <br> College of Arts and Sciences <br> Department of Sociology \& Anthropology, PH 403 <br> http://www.cas.ucf.edu/soc_anthro/firstpage.html <br> anthropology@ucf.edu

Jay Corzine, 407-823-2227

The Anthropology minor develops a holistic understanding of the past and present human condition. Four different concentrations are delimited within the Anthropology minor.

Credit Hour Requirements 18 hours
Required Courses ( 6 hrs )
Two of the following four 2000 level courses must be included in the minor:
ANT 2000 General Anthropology 3 hrs
ANT 2100 Archaeology \& Rise of Human Culture 3 hrs
ANT 2410 Cultural Anthropology 3 hrs
ANT 2511 The Human Species 3 hrs

## Restricted Electives ( $\mathbf{1 2} \mathbf{~ h r s )}$

Four other Anthropology courses must be taken within one of the following defined concentrations. Substitutions must be approved by the Anthropology Coordinator.

## Concentration in General Anthropology (12 hrs)

All four 2000 level courses plus two upper level (3000-5000) courses in Anthropology Concentration in Archaeology ( 12 hrs )

ANT 2000 and ANT 2100 must be taken. The other four courses must be selected from:
ANT 3115 Archaeological Method and Theory
ANT 3142 Old World Prehistory
ANT 3145 Archaeology of Complex Societies
ANT 3163 Mesoamerican Archaeology
ANT 3168 Maya Archaeology (or ANG 5168)
ANT 3184 Mortuary Archaeology
ANT 4180 Seminar in Laboratory Analysis
(or three 1 hr labs)
ANT 4824 Advanced Archaeological Field Work
ANG 5166 Problems of Maya Archaeology
ANG 5167 Maya Hieroglyphs
ANG 5228 Maya Iconography
Concentration in Physical Anthropology ( 12 hrs )
Take four of the following courses:
ANT 3184 Mortuary Archaeology
ANT 3541 Biobehavioral Anthropology
ANT 4521C Forensic Anthropology
ANT 4462 Medical Anthropology
ANT 4525 Human Osteology
ANT 4586 Human Origins

## Concentration in Cultural Anthropology ( 12 hrs )

ANT 2000 and ANT 2410 must be taken. The other four courses must be selected from:

ANT 3212 Peoples of the World
ANT 3241 Magic, Ritual, and Belief
ANT 3245 Native American Religions
ANT 3262 Rural Society
ANT 3273 Law and Culture
ANT 3302 Sex, Gender and Culture
ANT 3311 Indians of the SE US
ANT 3312 Ethnology of North Amer Indians
ANT 3313 Indians of N Amer High Plains
ANT 3314 Indians of the Northeast Woodlands
ANT 3318 Indians of the Northwest Coast
ANT 3332 Peoples and Culture of Latin America
ANT 3363 Anthropology of Japan
ANT 3640 Language and Culture
ANT 3340 Caribbean Cultures
ANT 3319 The Anthropology of Diaspora
ANT 4034 History of Anthropological Thought
ANT 4308 Gender Issues in Latin America
ANG 5167 Maya Hieroglyphs
ANG 5228 Maya Iconography
ANG 5324 Contemporary Maya
ANT 5479 Comparative Cultural Analyses

## Other Requirements

- Maintain a grade of "C" (2.0) or better in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department
- No credit by exam (CLEP, TSD, Military credit) may be used.


# ANTHROPOLOGY IN MULTICULTURAL STUDIES: Minor 

College of Arts and Sciences
Department of Sociology \& Anthropology, PH 403
http://www.cas.ucf.edu/soc_anthro/firstpage.html
anthropology@ucf.edu
Jay Corzine, 407-823-2227

This minor develops a more sophisticated understanding of the recent dilemmas of Hispanic, Native American, and Pacific Rim cultures, sex, and gender controversies in America and other societies, and the theoretical and practical issues of modern applied anthropology. The minor is especially appropriate for students majoring in political science, international business, or for any student seeking an enhanced understanding of contemporary cultural relations.

## Credit Hour Requirements 18 hours

Required Course ( $\mathbf{3} \mathbf{~ h r s )}$
One of the following two 2000 level courses must be included in the minor:
ANT 2000 General Anthropology
ANT 2410 Cultural Anthropology

## Restricted Electives ( $\mathbf{1 5} \mathbf{~ h r s ) ~}$

Five other Anthropology courses must be taken from the following offerings. Substitutions require the consent of the Anthropology Coordinator.

ANT 3212 Peoples of the World
ANT 3241 Magic, Ritual, and Belief
ANT 3245 Native American Religions
ANT 3302 Sex, Gender and Culture
ANT 3312 Ethnology of North Amer Indians
ANT 3332 People and Cultures of Latin Amer
ANT 3640 Language and Culture

ANT 3XXX Caribbean Cultures
ANT 3XXX The Anthropology of Diaspora
ANT 4308 Gender Issues in Latin America
ANT 5479 Comparative Cultural Analyses
SYD 3700 Race and Ethnic Minorities in the US

## Other Requirements

- Maintain a grade of "C" (2.0) or better in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Not open to Anthropology majors.


## ART HISTORY: Minor

College of Arts and Sciences
Art Department, VAB 117
http://reach.ucf.edu/~art
art@ucf.edu
J. Chavda, 407-823-2676

Credit Hour Requirements 27 hours
Required Courses ( $\mathbf{1 5} \mathbf{~ h r s ) ~}$
ARH 2050 The History of Art I 3 hrs
ARH 2051 The History of Art II 3 hrs
ARH 4310 Early Italian Renaissance Art 3 hrs
ARH 4430 19th Century Art 3 hrs
ARH 4450 20th Century Art 3 hrs
Non-western Course Requirement (3 hrs)
Select from the following:

ARH 4545 Art of India
ARH 3520 African Art
ARH 4655 Meso American Art
Restricted Elective: ( $\mathbf{3} \mathbf{~ h r s )}$
ARH 4350 Baroque Art
ARH 4892 Women in Art
ARH 4458 Women and Art in the 20th Century America
ARH 5478 Contemporary Women Artists
ARH 4800 Theory and Criticism of the Visual Arts
6 hours of electives ( 6 hrs )
Two additional ARH 3XXX-4XXX courses

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- At least six of the required hours must be regularly scheduled 3000-4000 level courses in an area of specialization and taken at UCF
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor.

ART - STUDIO: Minor<br>College of Arts and Sciences<br>Art Department, VAB 117<br>http://reach.ucf.edu/~art<br>art@ucf.edu

J. Chavda, 407-823-2676

## Credit Hour Requirements 24 hours

## Required Courses ( $\mathbf{1 8} \mathbf{~ h r s ) ~}$

ARH 2050 The History of Art I 3 hrs
ARH 2051 The History of Art II 3 hrs
ART 2201C Design Fundamentals I 3 hrs
ART 2203C Design Fundamentals II 3 hrs
ART 2300C Drawing Fundamentals I 3 hrs
ART 2301C Drawing Fundamentals II 3 hrs

## Restricted Upper Division Courses ( 6 hrs )

six semester hours of studio art in one area of specialization at the 3000-4000 level

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.

At least six of the required hours must be regularly scheduled 3000-4000 level courses in an area of specialization and taken at UCF.

- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.

No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the minor.


## ASIAN STUDIES: Minor <br> College of Arts and Sciences <br> Department of Political Science, CNH 415 <br> http://pegasus.cc.ucf.edu/~politics <br> politics@ucf.edu

Robert Bledsoe, 407-823-2608

An interdisciplinary minor in which seven UCF departments; Anthropology, Art, Economics, Foreign Languages and Literatures, History, Philosophy, and Political Science participate in order to offer
students a basic and well-rounded background in the field. Courses are to be selected in consultation with a departmental advisor.

## Credit Hour Requirements 24 hours

## Required Course ( $\mathbf{3} \mathbf{h r s}$ )

HUM 3401 Asian Humanities

## Restricted Electives ( $\mathbf{2 1} \mathbf{~ h r s ) ~}$

Approved courses (see department for listing)

## Foreign Language Requirement ( $\mathbf{0 - 8} \mathbf{~ h r s}$ )

One year or the equivalent proficiency examination. Students taking foreign language classes must complete at least six hours in the sequence chosen (e.g. Chinese, Japanese).

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used in the minor without prior approval by the director.

| BIOLOGY: Minor |  |  |
| :---: | :---: | :---: |
| College of Arts and Sciences |  |  |
| Department of Biology, BL 210 |  |  |
| biology@ucf.edu |  |  |
| Walter Taylor, 407-823-2141 |  |  |
| Credit Hour | Requirements | 32 hours |
| Required Cou | ourses | ( 32 hrs ) |
| BSC 2010C | General Biology | 4 hrs |
| BSC 2011C | Biological Diversity | 4 hrs |
| CHM 2045C | Chemistry Fundamentals I | 4 hrs |
| CHM 2046 | Chemistry Fundamentals II | 3 hrs |
| CHM 2210 | Organic Chemistry | 3 hrs |
| PCB 3023 | Molecular Cell Biology | 3 hrs |
| PCB 3034 | Principles of Ecology | 3 hrs |
| PCB 3063 | Genetics | 3 hrs |
| PCB 4683C | Population Biology and Evolution | 5 hrs |
| Other Requirements |  |  |

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

At least 15 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, AP, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the minor.

A minor in Biology will not be awarded to students who have, or expect to earn, any other Life Science degree.

## BUSINESS: Minor for Non-Business Majors <br> College of Business Administration <br> Department of Economics, BA 229F <br> B. Moore, 407-823-3266, bmoore@bus.ucf.edu

## Credit Hour Requirements

## 24 hours

Required Accounting Course(s)
(6 hrs)
ACG 2021 Principles of Financial Accounting and

ACG 2071 Principles of Managerial Accounting
Required Courses
( 15 hrs )
ECO 2013 Principles of Economics I
ECO 2023 Principles of Economics II
FIN 3403 Business Finance
MAN 3025
Management of Organizations
MAR 3023 Marketing

## Restricted Elective

(3 hrs)
A 3000/4000 level business course
(GEB 3004 may not be used)

## Other Requirements

- A grade of "C" (2.0) is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

At least 9 hours of upper division credit used in the minor must be earned at UCF.
No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship or Independent Study credit can not be used toward the minor.
CHEMISTRY: Minor
College of Arts and Sciences
Department of Chemistry, CH 117
http://www.cas.ucf.edu/chemistry
chemistry@ucf.edu
Brooks Madsen, 407-823-2246

| Credit Hour Requirements | $\mathbf{2 8}$ hours |  |
| :--- | :---: | :---: |
| Required Courses | (21 hrs) |  |
| CHM 2045C | Chemistry Fundamentals I | 4 hrs |
| CHM 2046 | Chemistry Fundamentals II | 3 hrs |
| CHM 2046L | Chemistry Fundamentals Laboratory | 1 hr |
| CHM 2210 | Organic Chemistry I | 3 hrs |
| CHM 2211 | Organic Chemistry II | 3 hrs |
| CHM 2211L | Organic Laboratory Techniques I | 2 hrs |
| CHM 3120C | Analytical Chemistry | 5 hrs |
|  |  |  |
| Restricted Upper Division Electives | $\mathbf{( 7 ~ h r s )}$ |  |

At least one course must be selected from group I and the remaining from group I and/or II:
Group I: Select at least one course
CHM 3212L Organic Laboratory Techniques II
CHM 4130C Advanced Analytical Laboratory Technique
BCH 4103L Biochemical Methods
CHS 3530C Forensic Analysis of Controlled Substances
CHM 3411L Physical Chemistry Laboratory
CHM 5451L Polymer Chemistry Laboratory

## Group II:

| BCH 4053 | Biochemistry I |
| :--- | :--- |
| BCH 4054 | Biochemistry II |
| CHM 3410 | Physical Chemistry I |
| CHM 3411 | Physical Chemistry II |
| CHM 5225 | Advanced Organic Chemistry I |
| CHM 4220 | Organic Chemistry III |
| CHS 4200 | Concepts in Industrial Chemistry |
| CHM 5235 | Applied Molecular Spectroscopy |
| CHM 5450 | Polymer Chemistry |
| CHS 4615 | Environmental Chemistry |

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 11 hours used in the minor must be earned at UCF within the department, with a minimum GPA of 2.0.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor.


## CHILDREN'S SERVICES: Certificate

College of Health and Public Affairs
School of Social Work, HPA 204
Mary Van Hook, 407-823-2114

The Children's Services Certificate is designed to prepare students to work with children and families who are facing issues of abuse or neglect, or are involved in some way with the child welfare system. Students learn to assess abuse and neglect and to develop appropriate ways to work with the families and elements of the child welfare system. The certificate includes both classroom academic work and
a specialized field internship. The program is a joint effort between the Schools of Social Work in Florida and the Department of Children and Families to improve services to children and their families.

## Credit Hour Requirements

## Required Courses

SOW 3352 Practice II: Interpersonal Skills
SOW 4654 Children's Services
SOW 5655 Child Abuse: Treatment \& Prevention
SOW 4510 Field Education*

* Placement with the Department of Children and Families-working with protective services or placement in an agency that serves children.

NOTE: Students need to discuss their interest in the certificate with the field office while arranging for their BSW placement.

## COMMUNICATIVE DISORDERS: Minor

College of Health and Public Affairs
Department of Communicative Disorders
HPA II 101
Doris Wolf, 407-249-4798
E-mail: dwolf@mail.ucf.edu

## Credit Hour Requirements

## 22 hours

## Required Courses

SPA 3002 Intro to Communicative Disorders 3 hrs
SPA 3112 Basic Phonetics 3 hrs
SPA 3112L Basic Phonetics Lab 1 hr
LIN 3XXX Language Development: Birth-8yrs 3 hrs
SPA 3101 Physiological Bases of Speech/Hearing 3 hrs

SPA 4402 Language Dis. Across the Lifespan
SPA 4201 Articulation/Phonological Disorders 3 hrs

## Other Requirements

A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
At least 19 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship or Independent Study credit can not be used toward the minor.

## Licensed Speech Language and Audiology Assistant

This state license may be obtained by completing the minor plus one additional course as recommended by the academic advisor.

COMMUNITY ARTS - PAVE: Minor<br>College of Arts and Sciences<br>Department of Art, VAB 117<br>http://reach.ucf.edu/~art

art@ucf.edu
Joyce Lilie, 407-823-2676

## Minor Requirements

## Partners in Art in Visual Education (PAVE)

A minor in Community Arts/PAVE is offered for the student who is majoring in Art, Music, Theatre, or English (with a Creative Writing focus). Students interested in the minor should contact the department chair.

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.

Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

At least 15 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used toward the minor.

## COMPUTER INFORMATION TECHNOLOGY: Minor, Certificate <br> College of Engineering and Computer Science <br> School of Electrical Engineering and Computer Science, CSB 201 <br> E-mail: computerscience@ucf.edu <br> http://www.cs.ucf.edu <br> Mark Llewellyn, 407-823-2341

## Credit Hours Requirements

Required Courses
COP 3502C Computer Science I
COP 3503C Computer Science II
CDA 3103C Computer Organization
MAD 2XXX Foundations of Discrete Math
COP 3223 C Programming
COP 3330 Object Oriented Programming
CGS 2545C Database Concepts
CGS 3269 Comp Arch Concepts
CGS 3285 Comp Networks Concepts
CGS 3763 Operating System Concepts 3 hrs
COP 3346 Unix 3 hrs
Additional three credits chosen from any upper level
course offered by the School of Electrical Engineering and Computer Science.

Other Requirements

A grade of "C" (2.0) or better is required in each course used to satisfy the minor.
"S" grades are not accepted.
At least 18 hours used in the minor must be earned within Computer Science at UCF.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, cooperative education, or Independent Study credit can not be used toward the certificate.

COMPUTER SCIENCE: Minor<br>College of Engineering and Computer Science<br>School of Electrical Engineering and Computer Science, CSB 201<br>E-mail: computerscience@ucf.edu<br>http://www.cs.ucf.edu

William Allen, 407-823-2341

Credit Hour Requirements
Required Courses
COP 3502C Computer Science I
COP 3503C Computer Science II
COP 3530C Computer Science III
COT 3100C Introduction to Discrete Structure
COT 3960 Foundation Exam
Restricted Upper Division Electives
Select from the following:
CDA 3103C Computer Organization
COP 3402C Systems Software
any other regularly scheduled 4000-level (or higher) course offered by computer science at UCF.
Other Requirements

A grade of "C" (2.0) or better is required in each course used to satisfy the minor.
"S" grades are not accepted.
At least 9 hours used in the minor must be earned within Computer Science at UCF.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, cooperative education, or Independent Study credit can not be used toward the minor.
COMPUTER SCIENCE, APPLIED: Minor, Certificate
College of Engineering and Computer Science
School of Electrical Engineering and Computer Science, CSB 201
E-mail: computerscience@ucf.edu
http://www.cs.ucf.edu
Ray Enger, 407-823-2341

Credit Hour Requirements
Required Courses
Select one course
CGS 1060C Introduction to Computer Science
CGS 2100C Computer Fundamentals for Business
Applications
Select one course
COP 2500C Concepts in Computer Science
COP 3502C Computer Science I
Restricted Electives
(6 hrs)
Select from the following:
CGS 2515 Spreadsheet Concepts
CGS 2545C Database Concepts
CGS 2585C Desktop/Internet Publishing
CGS 3175 Internet Applications
CGS 3269 Computer Architecture Concepts

CGS 3285 Computer Networks Concepts
CGS 3763 Operating Systems Concepts
Computer Science Electives
(6 hrs)
Any upper division courses offered within Computer Science at UCF or additional courses chosen from the restricted electives (exclusive of independent studies, internships, and those courses listed under Required Courses).

## Other Requirements

- A minimum grade of "C" (2.0) or better is required in each course used to satisfy the minor.
"S" grades are not accepted.
At least 9 hours used in the minor must be earned within the Computer Science program.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, cooperative education, or Independent Study credit can not be used toward the minor.


## CRIMINAL JUSTICE: Minor <br> College of Health and Public Affairs <br> Department of Criminal Justice and Legal Studies, HPA 311 <br> David Fabianic, 407-823-2603 <br> E-mail: cjadvise@mail.ucf.edu

Credit Hour Requirements
Required Courses
CCJ 3024 Criminal Justice System
CCJ 3014 Crime in America
Restricted Electives
Two of the following:
CCJ 3290 Prosecution and Adjudication
CCJ 3306 The Corrections and Penology

Six semester hours of Criminal Justice Courses
(selected with the aid of an advisor).

## Other Requirements

A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
At least 15 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship or Independent Study credit can not be used toward the minor.

## DIGITAL MEDIA: Certificate

College of Arts and Sciences
CREAT Digital Media Program, VAB 205

## http://www.creat.cas.ucf.edu

## digitalmedia@creat.cas.ucf.edu

Program Director: J. Michael Moshell, 407-823-6100

The certificate program in Digital Media provides students an opportunity to study this evolving field, and to participate in senior projects in partnership with media professionals.

## Entrance Requirement

Admission to the Digital Arts Seminar requires evaluation of a portfolio of work which demonstrates the student's creativity and technical accomplishment is some artistic or technical domain.

All evaluations are conducted by the program Curriculum Committee.

Credit Hour Requirements:
Required Course:
IDS 3930 Seminar in Digital Arts

12 hours
(3 hrs)
3 hrs

Any course listed under the Advanced Specializations of the Digital Media major (substitutions must be approved by the program Director prior to being taken)

Senior Project:
(6 hrs)
IDS 4680 Digital Media Project
(may be repeated for credit)

## Other Requirements

- A minimum grade of "C" (2.0) is required in each course used to satisfy the certificate.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- All courses used in the certificate must be taken at UCF.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can be used in the certificate only with prior written permission.
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e-BUSINESS: Minor
College of Business Administration
Office of Student Support, BA 240, 407-823-2184

Credit Hour Requirements<br>Required Courses<br>*MAN 4XXX eStrategy<br>*ISM 4XXX eTechnology<br>*MAR 3880 eMarketing

18 hours
(9 hrs)

## Restricted Electives

 (9 hrs)Select three courses
*MAN 4802 Entrepreneurship
*ISM 4932: ST E-Commerce
*ISM/MAR 4XXX Database Marketing Research
*MAR 4XXX Strategic Foundations in Global E-Business
*MAR 5941 Small Business Consulting
(must be E-business related)
**ISM 4941 Internship in MIS
(must be E-business related)
**MAN 4941 Management Internship
(must be E-business related)
**MAR 4941 Marketing Internship
(must be E-business related)

* Requires additional prerequisites
** Note: Only one internship will count toward the minor degree. Internships may also require additional prerequisites.


## Other Requirements

A minimum grade of 2.0 or better is required in all courses used to satisfy the minor.
Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

- At least nine hours used in the minor must be earned at UCF.

No credit by exam (CLEP, TSD, Military credit) may be used.
Independent Study or Directed Research credit can not be used toward the minor.

## ECONOMICS: Minor

(for both Business Majors and non-majors)
College of Business Administration
Department of Economics, BA 325
B. Sen, 407-823-2069, bsen@bus.ucf.edu

Credit Hour Requirements
Required Courses
ECO 2013 Principles of Economics I
ECO 2023 Principles of Economics II
ECO 3101 Intermediate Price Theory
ECO 3203 Aggregate Econ Conditions Anal
ECO 3411 Quantitative Business Tools II
Upper Division Restricted Electives
Select from any ECO, ECP or ECS courses at the 3000-4000 level

## Other Requirements

A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

- At least 15 hours used in the minor must be earned at UCF within the department.

No credit by exam (CLEP, TSD, Military credit) may be used.

- 3 hours of Internship or Independent Study credit can be used toward the minor with prior approval of the academic advisor.


## ENGLISH - CREATIVE WRITING: Minor

College of Arts and Sciences
Department of English, CNH 301
english@ucf.edu
Dawn Trouard, 407-823-2212
Credit Hour Requirements 21 hours
Required Course
(3 hrs)
CRW 3013 Creative Writing for English Majors
Restricted Elective Courses
(6 hrs)
Select one course after completing CRW 3013
CRW 3120 Fiction Writing Workshop
CRW 3310 Poetry Writing Workshop
CRW 3211 Creative Nonfiction Writing
Select one course
CRW 4122 Advanced Fiction Writing Workshop
(PR: CRW 3120)
CRW 4320 Advanced Poetry Writing Workshop
(PR: CRW 3310)
CRW 4224 Advanced Nonfiction Workshop
(PR: CRW 3211)
Restricted Upper Division Electives
( 12 hrs )
CRW 3311 Structure of Verse
CRW 3410 Writing Scripts
CRW 4114 History of Prose Style

CRW 5932 Teaching Creative Writing
and any of the above courses not already used

## Other Requirements

- A grade of "C" (2.0) is required in each course used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor.


## ENGLISH - LINGUISTICS: Minor <br> College of Arts and Sciences <br> Department of English, CNH 301 <br> english@ucf.edu <br> Dawn Trouard, 407-823-2212

Credit Hour Requirements
Required Courses
LIN 3010 Principles of Linguistics
LIN 4100 History of the English Language
LIN 4680 Modern English Grammar
Restricted Upper Division Electives
LIN 4612 African American English
LIN 4660 Linguistics and Literature
LIN 4801 Language and Meaning
LIN 5137 Linguistics
ANT 3640 Language and Culture
PHI 4400 Philosophy of Science

## 18 hours

(9 hrs)
3 hrs
3 hrs
3 hrs
(9 hrs)
or any course approved by the Linguistics Committee

## Other Requirements

A grade of "C" (2.0) is required in each course used to satisfy the minor.
Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.

Internship, Co-op, or Independent Study credit can not be used toward the minor.

## ENGLISH - LITERATURE: Minor

College of Arts and Sciences
Department of English, CNH 301
english@ucf.edu
Dawn Trouard, 407-823-2212

Credit Hour Requirements
Required Course

## 21 hours

(3 hrs)

ENG 3014 Theories and Techniques of Lit Study
(PR for all 4000 level AML, ENG, ENL, and LIT courses)

## Restricted Upper Division Electives

( 18 hrs )
English courses with AML, ENG, ENL, or LIT prefixes chosen by student and departmental advisor Other Requirements

- A grade of "C" (2.0) or better is required in each course used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 12 hours used in the minor must be earned at UCF within the department, and must be regularly scheduled, upper level courses.
- No credit by exam (CLEP, TSD, Military credit) may be used.

Internship, Co-op, or Independent Study credit can not be used toward the minor.

## Credit Hour Requirements

Required courses
ENC 3211 Theory \& Practice of Tech Writing 3 hrs
ENC 3311 Advanced Expository Writing 3 hrs
ENC 4215 Techniques of Technical Publications 3 hrs
ENC 4218 Visual Elements in Documentation 3 hrs
ENC 4293 Technical Documentation I 3 hrs
ENC 4294 Technical Documentation II 3 hrs
ENC 4295 Technical Documentation III 3 hrs
Students completing the minor may intern with a Central Florida corporation
Other Requirements
A grade of "C" (2.0) is required in each course used to satisfy the minor.

- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor.

ENGLISH - WRITING: Minor
College of Arts and Sciences
Department of English, CNH 301

Dawn Trouard, 407-823-2212

Credit Hour Requirements
Restricted Elective Courses

## 18 hours

(18 hrs)

Any 3000 or 4000 level ENC or CRW classes for which the student has met the prerequisites, including

CRW 3120 Fiction Writing Workshop
CRW 3310 Poetry Writing Workshop
CRW 3013 Creative Writing for English Majors
CRW 3211 Creative Nonfiction Writing
CRW 3311 Structure of Verse
CRW 4122 Advanced Fiction Writing Workshop
CRW 4123 Science Fiction Writing
CRW 4224 Advanced Nonfiction Workshop
CRW 4320 Advanced Poetry Writing Workshop
ENC 2210 Writing for the Business Professional
ENC 3211 Theory and Practice of Technical Writing
ENC 3241 Writing for the Technical Professional
ENC 3310 Magazine Writing I
ENC 3311 Advanced Expository Writing
ENC 3942 Journal Writing Practicum

## Other Requirements

- A grade of "C" (2.0) is required in each course used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.

Internship, Co-op, or Independent Study credit can not be used toward the minor.

College of Arts and Sciences

# Department of Philosophy, CNH 411 

http://www.cas.ucf.edu/philosophy

## liveoak@ucf.edu

Director: Ronnie Hawkins, 407-823-6514

The Environmental Studies minor degree is an interdisciplinary program that assists students to prepare for a diverse set of academic endeavors and careers. It delivers the tradition of a liberal arts education with the rigor of the natural and social sciences, providing the introspection and artistic presentation of the humanities with the inquisitiveness that we share concerning our environment.

## Credit Hour Requirements

## 21 hours

Note: It is the student's responsibility to ensure that any prerequisite courses have been completed before enrolling in many of these courses.

## Required Course

IDS 3XXX Interdisc Environmental Studies 3 hrs
Science \& Environmental Electives (9 hrs)
Natural Sciences
BSC 1050\&L Biology and Environment + lab
BSC 2010C General Biology
BSC 2011C Biological Diversity
BOT 3152C Local Flora
BOT 4156C Florida Wildflowers
BOT 3800 Ethnobotany
BOT 3820C Plants and the Urban Environment
BOT 4303C Plant Kingdom
BOT 4696C Conservation and Managem't of Native Plants
BOT 5623C Plant Geography and Ecology
BOT 4713C Plant Taxonomy

BSC 4312C Marine Biology
PCB 3034 Principles of Ecology
PCB 3034L Principles of Ecology Laboratory
PCB 3442 Florida Aquatic Ecology
PCB 4302C Physiochemical Limnology
PCB 4303C Biological Limnology
PCB 4683C Population Biology and Evolution
PCB 5045C Conservation Biology
PCB 5326C Ecosystems of Florida
PCB 5435C Marine Ecology of Florida
PCB 5485 Models in Ecology
PCB 5328 Landscape Ecology
CHM 3120C Analytical Chemistry
CHM 4615 Environmental Chemistry
HSC 4500 Epidemiology

## Technology \& Society

EGN 4813 Science in History
EGN 4814 Technology in History
EGN 4818 Technology in North America
EGN 4824 Energy and Society
EGN 4825 Environment and Society
Computational Science
CGS 1060C Introduction to Computer Science
CGS 4140 Computerized Health Information Systems
STA 2023 Statistical Methods I

## Environmental Engineering

ENV 3001 Intro to Environmental Engineering
ENV 4121C Air Pollution

| ENV 4341 | Solid Waste Management |
| :--- | :--- |
| ENV 4432 | Potable Water Treatment |
| ENV 5334 | Characterization of Hazardous Waste Sites |
| Social \& Humanities Electives |  |
| Environment \& Society |  |
| ECO 4302 | Economics of the Environment |
| ECO 4701 | The Global Economy |
| INR 4351 | International Environmental Law |
| PUP 3204 | Environmental Politics |
| PUP 4503 | Government and Science |
| PAD 4351 | Issues in Environ Program Management |
| PAD 5336 | Intro to Urban Planning |
| PAD 5338 | Land Use and Planning Law |
| PLA 4631 | Land Use and Environmental Law |
| Geography |  |
| CEG 3301 | Eng and Environmental Geology |
| GEO 1200 | Physical Geography |
| GEO 2370 | Resources Geography |
| GEO 3470 | World Political Geography |
| GEO 4131C | Remote Sensing of the Environment |
| Philosophy |  |
| PHI 3033 | Philosophy, Religion, and the Environment |
| PHI 4400 | Philosophy of Science |
| PHI 3640 | Environmental Ethics |
| PHI 4633 | Ethics and Biological Science |
| PHM 4031 | Environmental Philosophy |
| PHM 5035 | Environmental Philosophy |
| Sociology |  |
| EP |  |

SOP 3004 Social Psychology
SCE 4023 Teaching Sci and Tech to Children
ANT 2000 General Anthropology
ANT 3312 Ethnology of North American Indians
ANT 2100 Arch and the Rise of Human Culture
ANT 2511 The Human Species

## Writing, Journalism Courses

JOU 2100 News Reporting
JOU 4181 Public Affairs Reporting
PGY 3610C Photojournalism I
ENC 3211 Theory and Practice of Technical Writing
LIT 4433 Survey of Technical and Scientific Literature
LIT 3313 Science Fiction
CRW 3211 Creative Nonfiction Writing
Other Requirements A minimum GPA of 2.0 is required in all courses used to satisfy the minor.

- 18 hours must be taken at the upper division.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study require prior approval to be used toward the minor.

EXCEPTIONAL EDUCATION: Minor<br>College of Education<br>Department of Human Services and Wellness, ED 214<br>http://www.edcollege.ucf.edu<br>Wilfred Wienke, 407-823-2401<br>E-mail: wienke@mail.ucf.edu

The Exceptional Education minor is intended to provide a limited, but substantive experience in the fields of education and exceptional children. The minor is not intended for students enrolled in the College of Education and does not lead to teacher certification nor admission to the College of Education. The minor is appropriate for students who are seeking an enhanced understanding of education or are considering a career in the fields of education or exceptional education. This minor will strengthen the marketability of the student's major program.

## Credit Hour Requirements

Required Courses
RED 3012 Foundation of Reading
EEX 3102 Lang. Dev. and Comm Disorders
EEX 4003 Teaching Exceptional Students
EEX 4601 Introduction to Behavior Management 3 hrs
EEX 4753 Parent/Professional Collaboration 3 hrs
EDF 4603 Analysis of Critical Issues

## Restricted Electives

EED 3250 Behavioral Issues of the Emotionally
Handicapped 3 hrs
ELD 4011 Intro to Specific Learning Disabilities 3 hrs
EMR 4011 Intro to Mental Retardation 3 hrs
EDF 4214 Classroom Learning Principles 3 hrs

## Other Requirements

- Completion of all parts of the CLAST with appropriate passing scores, not alternatives, or completion of an AA degree from a Florida public post secondary institution, including completion of CLAST with appropriate scores or alternatives.
- A minimum GPA of 2.5 of all Gordon Rule classes including ENC 1101, 1102, and two college level math courses, MAC 1105 or higher, is required
- No credit by exam (CLEP, Military credit) may be used. Transfer credits from other universities will be considered.

Note: Completion of the minor does not complete the requirements for certification in Exceptional Education nor does it constitute admission to the College of Education.

## FILM - CINEMA STUDIES: Minor

College of Arts and Sciences
Film Department, COM 121
http://www.film.ucf.edu

## film@ucf.edu

Sterling Van Wagenen, 823-3456

## Entrance Requirement

- Completion of a Minor Declaration and Minor Application

Credit Hour Requirements
26 hours
Required Courses
FIL 1XXX Foundations of Story
FIL 2400 History of Motion Pictures
FIL 3006 Art of the Cinema 3 hrs
FIL 3200C Intro to Film Production 3 hrs
FIL 3401 Film History to 1945 hrs
FIL 3402 Film History from 1945 to Present 3 hrs
FIL 3503 Film Theory and Criticism I 3 hrs
FIL 3503 Film Theory and Criticism II 3 hrs
Restricted Electives (Choose One)
(3 hrs)
FIL 3309 Women in Film
FIL 3520 Italian Film
FIL 3521 French Film
FIL 3XXX Black Images in Film
FIL 3522 German Film
FIL 3412 Black Cinema
Other Requirements
A grade of "C" (2.0) is required in all courses used to satisfy the minor.

Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
At least 12 hours must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, Co-op, or Independent Study credit can not be used toward the minor.

FRENCH: Minor<br>College of Arts and Sciences<br>Foreign Languages and Literatures, CNH 523<br>http://pegasus.cc.ucf.edu/~forlang<br>foreignlanguage@ucf.edu<br>C. E. Stebbins, 407-823-2472

## Credit Hour Requirements

## 18 hours

## Restricted Electives

- Select six upper division courses in French, including the 3000-level advanced oral communication and composition courses.
- A native or near-native speaker must substitute an alternate upper division course for the advanced oral communication course. Approval of a departmental advisor is required prior to registration.


## Other Requirements

- A grade of "C" (2.0) is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

At least 15 hours used in the minor must be earned at UCF within the department.

- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor without departmental permission.


## GERMAN: Minor

# Foreign Languages and Literatures, CNH 523 

http://pegasus.cc.ucf.edu/~forlang
foreignlanguage@ucf.edu
C. E. Stebbins, 407-823-2472

## Credit Hour Requirements

## 18 hours

## Restricted Electives

- Select six upper division courses in German, including the 3000-level advanced oral communication and composition courses.
- A native or near-native speaker must substitute an alternate upper division course for the advanced oral communication course. Approval of a departmental advisor is required prior to registration.


## Other Requirements

- A grade of "C" (2.0) is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

At least 15 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the minor without departmental permission.


## GERONTOLOGY: Certificate

College of Health and Public Affairs
School of Social Work, HPA 204
Margaret Sauer, 407-823-2114

In recognition of the special needs of the elderly citizens of Central Florida, the University offers a fifteen hour interdis-ciplinary program leading to a Certificate in Gerontology. If you are a non-social work student and planning your internship, check with your department's coordinator to plan for an internship in gerontology. The gerontology coordinator will also provide information for placement opportunities. The program may be of particular interest to students who are majoring in health
sciences, psychology, social work, nursing, or sociology. Other students, such as those majoring in business, physical education, or art education may also find the program valuable.

## Credit Hour Requirements

Required Courses

## 15 hours

( 6 hrs )

GEY 2000 Gerontology: Interdisciplinary Overview 3 hrs
XXX 4941 Internship 120 hours 3 hrs
Electives
(9 hrs)

- Students select three additional courses from the following: A maximum of two courses in their major and at least one course must be outside their college.

College of Health and Public Affairs.

HSA 4220 Long Term Care 3 hrs
HSA 3210 Long Term Administration 3 hrs
HSC 4564 Health Care Needs of the Elderly 3 hrs
NUR 4286 Gerontologic Nursing 3 hrs
NUR 4932 A Multidisc. App. to End of Life Issues
PLA 4XXX Legal Issues of the Elderly 3 hrs
SOW 4645 Social Services for the Elderly 3 hrs
College of Arts \& Sciences
DEP 3464 Psychology of Aging 3 hrs
EXP 5067 Human Factors and Aging 3 hrs
SYP 4730 Sociology of Aging 3 hrs
GEY 3930H Images of Aging 3 hrs
SYP 4734 Minority Aging 3 hrs

3 hrs

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.

Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
At least 12 hours used in the certificate must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.

Internship or Independent Study credit can not be used toward the minor.

## GERONTOLOGY: Minor <br> College of Health and Public Affairs <br> School of Social Work, HPA 204 <br> Margaret Sauer, 407-823-2114

Credit Hour Requirements
18 hours
Required Courses
(6 hrs)
GEY 2000 Gerontology: Interdisciplinary Overview 3 hrs
XXX 4941 Internship 120 hours
3 hrs
Electives ( 12 hrs )

- Students select four additional courses from the following: A maximum of two courses in their major and at least two courses must be outside their college.

College of Health and Public Affairs
HSA 4220 Long Term Care 3 hrs
HSA 3210 Long Term Administration 3 hrs
HSC 4564 Health Care Needs of the Elderly 3 hrs
NUR 4286 Gerontologic Nursing 3 hrs
NUR 4932 A Multidisciplinary Approach to End 3 hrs
of Life Issues
PLA 4XXX Legal Issues of the Elderly 3 hrs
SOW 4645 Social Sciences for the Elderly 3 hrs
College of Arts and Sciences
DEP 3464 Psychology of Aging 3 hrs
EXP 5067 Human Factors and Aging 3 hrs
SYP 4730 Sociology of Aging 3 hrs
GEY 3930H Images of Aging 3 hrs

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor
- Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted
- At least 12 hours used in the minor must be earned at UCF within the program
- No credit by exam (CLEP, TSD, Military credit) may be used
- Internship or Independent Study credit may not be used toward the minor
HEALTH SCIENCES: MinorCollege of Health and Public Affairs
Department of Health Professions, HPA II 210
Timothy Worrell, 407-823-2214
E-mail: worrell@pegasus.cc.ucf.edu
Credit Hour RequirementsRequired CoursesHSA 3122 U.S. Health Care Systems3 hrs
HUN 2002 Modern Concepts of Nutrition ..... 3 hrs
HSC 3110C Medical Self Assessment ..... 3 hrsRestricted Upper Division Electives(9 hrs)

9 additional hours of upper division courses in the Health Professions department.

## Other Requirements

- Majors may not count courses presently required in a department program.
- A minimum GPA of 2.5 is required in all coursework, and a minimum grade of " C " (2.0) is required in all Health Professions courses.
- Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship or Independent Study credit can not be used toward the minor.


## HEALTH SERVICES ADMINISTRATION: Minor

College of Health and Public Affairs

## Department of Health Professions, HPA II 210

Dawn Oetjen, 407-823-2359

| Credit Hour Requirements | $\mathbf{1 8}$ hours |  |
| :--- | :--- | :---: |
| Required Courses | $\mathbf{( 1 5 ~ h r s )}$ |  |
| HSA 3122 | U.S. Health Care Systems | 3 hrs |
| HSA 4120 | Community Health Services | 3 hrs |
| HSA 4180 | Org and Mngmnt for Health Agencies | 3 hrs |
| HSA 4193 | Health Care Automation | 3 hrs |
| HSC 4500 | Epidemiology | 3 hrs |
| Restricted Elective | $\mathbf{( 3 ~ h r s )}$ |  |

HSA 3170 Health Care Finance or
HSC 3640 Health Law or
HSC 4653 Health Care Ethics
(Additional prerequisite courses may be required)
Other Requirements

- A minimum GPA of 2.5 is required in all coursework, and a minimum grade of " C " $(2.0)$ is required in all courses for the minor.
- Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship or Independent Study credit can not be used toward the minor.

HISTORY: Minor
College of Arts and Sciences
Department of History, CNH 551
http://pegasus.cc.ucf.edu/~history; history@ucf.edu

Richard Crepeau, 407-823-2224
Credit Hour Requirements 18 hours
Restricted Upper Division Electives
( 15 hrs )
Five upper division courses taught within the History Department
History Elective
(3 hrs)
Any course taught within the History Department
Other Requirements

- A grade of "C-" (1.75) or better is required in all courses used to satisfy the minor.
- Grades below "C-" (1.75) or "S" grades from other institutions are not accepted.
- At least 12 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used without academic advisor's approval.
- Internship, Co-op, or Independent Study credit can not be used toward the minor without departmental approval.


## HOSPITALITY MANAGEMENT: Minor

Rosen School of Hospitality Management
Classroom Bldg I, Suite 302, 407-823-2188
http://www.hospitality.ucf.edu
E-mail: Hospitality@mail.ucf.edu
Interim Dean: Abraham Pizam, 407-823-2188

Credit Hour Requirements
Required Courses
HFT 1000 Introduction to Hospitality Mngmnt 3 hrs
HFT 3540 Guest Services Management I 3 hrs
Choose any two courses from the following: ( 6 hrs )
HFT 2903 Hospitality Financial Accounting 3 hrs

HFT 3431 Hospitality Managerial Accounting 3 hrs
HFT 2503 Hospitality Marketing 3 hrs
HFT 2220 Hospitality Human Resource Mgmt 3 hrs
HFT 2444 Hospitality Information Systems 3 hrs
HFT 3600 Legal Environment in Hospitality 3 hrs
Choose any two courses from the following: ( 6 hrs )
HFT 3700 Tourism Management 3 hrs
HFT 3261 Restaurant Management 3 hrs
HFT 3274 Principles of Resort Time Sharing 3 hrs
HFT 4755 Theme Park \& Attraction Mngmnt 3 hrs
HFT 2750 Meetings/Convent'n/Eposit'n Industry 3 hrs
FSS 2221C Quantity Food Preparation 3 hrs
HFT 2254 Lodging Operations 3 hrs

## Other Requirements

- A minimum GPA of 2.0 in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" from other institutions are not accepted.
- At least 12 credit hours used in the minor must be earned at UCF within the school.
- No credit by exam (CLEP, TSD, Military credit) may be used in the minor.
- Students not in attendance at the first meeting of any School course may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.
- Final exams will be given during Exam Week only.
- Internship or Independent Study credit can not be used toward the minor.


## HUMANITIES: Minor

## College of Arts and Sciences

Department of Philosophy, CNH 411

# http://www.cas.ucf.edu/philosophy <br> philosophy@ucf.edu 

Shelley Park, 407-823-2273

A multicultural minor focusing on the art, literature, philosophy, and religion of various world cultures. This minor is intended to provide a limited, yet substantive, introduction to the humanities program in Knowledge, Responsibility, and Society. Students interested in the Liberal Arts major may find this minor particularly helpful. In consultation with a departmental advisor, student will select courses in accordance with the distributions listed below.

## Credit Hour Requirements

Humanities Foundations
Select two courses:
HUM 3431 Ancient Humanities
HUM 3435 Medieval Humanities
HUM 3255 Modern Humanities
HUM 3251 Contemporary Humanities

## Humanistic/Religious Traditions

Select two courses:
HUM 3401 Asian Humanities
HUM 3417 Hindu Thought and Culture
HUM 3419 Islamic Thought and Culture
HUM 3552 Christian Thought
ANT 3311
JST 3401 The Jewish People I

## Applications

Select two courses:
PHI 3601 Practical Wisdom
PHI 3803 Philosophy and Creativity
PHI 3033 Philosophy, Religion, and the Environment

## 6 hours

Indians of the Southeastern U.S.

## 6 hours

REL 3162 Healing: Culture, Art, and Praxis
HUM 4554 Religious Quest and the Human Dilemma
HUM 3340 Performance Theory
Upper Division Restricted Elective

## 3 hours

Select one additional course from the above list or from the following:
HUM 3320 Contemporary Multicultural Studies
HUM 4301 Classical Ideal
HUM 4303 Spiritual Ideal
PHI 4804 Critical Theory
PHI 3800 Aesthetics
PHI 3700 Philosophy of Religion
Other Requirements

- A "C" (2.0) grade or better is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor.


## INTERNATIONAL BUSINESS: Minor for Business Majors

College of Business
Office of Student Support, BA 240
Stan Atkinson, 407-823-3575

Credit Hour Requirements
Required Courses
GEB 4361 Business in the International Envt
ECO 3703 International Economics
FIN 4604 International Financial Management

## 18 hours

(9 hrs)
3 hrs
3 hrs
3 hrs

MAR 4156 International Marketing
MAN 4600 International Management
Electives
ANT 3212
ECS 4003 Comparative Economic Systems
ECS 4013 Economic Development
GEO 3470
INR 4035 International Political Economy
INR 4401 International Law I
INR 4224 Contemporary International Politics of Asia
INR 4243 International Politics of Latin America
Special Topics Seminars in International Business;
3000/4000 level foreign language course.

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship or Independent Study credit can not be used toward the minor.


## INTERPERSONAL COMMUNICATION: Minor

## College of Arts and Sciences

School of Communication, COM 288
http://www.cas.ucf.edu/communication
communication@ucf.edu
K. Phillip Taylor, 407-823-2681


- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the School of Communication.

No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the minor.


## ITALIAN: Minor

College of Arts and Sciences
Foreign Languages and Literatures, CNH 523
http://pegasus.cc.ucf.edu/~forlang
foreignlanguage@ucf.edu
C. E. Stebbins, 407-823-2472

## Credit Hour Requirements

## 18 hours

## Restricted Electives

Select 6 upper division courses in Italian, including the 3000-level advanced oral communication and composition courses.

A native or near-native speaker must substitute an alternate upper division course for the advanced oral communication course. Approval of a departmental advisor is required prior to registration.

## Other Requirements

A grade of "C" (2.0) is required in all courses used to satisfy the minor.

- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.

No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the minor without departmental permission.


## JAZZ STUDIES: Certificate

College of Arts and Sciences
Department of Music, CNH 205
http://pegasus.cc.ucf.edu/~ucfmusic
music@ucf.edu
Lee Eubank, 407-823-2869

This certificate is designed for undergraduate students majoring in music who desire to devote time to specific coursework in each of these areas. This is only a component of the B.A. or B.Music degree, provided that the student works with an advisor in the program.

## Admission Requirement

Student must satisfactorily audition for the Department of Music.

## Required Courses

MUT 3170 Jazz Theory I 2 hrs
MUT 3171 Jazz Theory II
MUT 3641 Jazz Improvisation I
MUT 3642 Jazz Improvisation II
MUL 2016 Evolution of Jazz
MUS 4932 Independent Study in Jazz
( 13 hrs )

2 hrs
2 hrs
2 hrs
3 hrs
2 hrs

## Other Requirements

- Must complete all course and non-course requirements (recitals and proficiency examinations) of the Music major in order to qualify for the certificate within the degree.
- A minimum GPA of 2.0 is required in all music courses attempted, whether or not used to satisfy the certificate.

Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
At least 9 hours used in the certificate must be earned at UCF within the Department.
No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the certificate.


## JUDAIC STUDIES: Minor, Certificate http://www.cas.ucf.edu/judaic_studies <br> College of Arts and Sciences <br> Judaic Studies Program, CNH 201 <br> http://www.cas.ucf.edu/judaic_studies <br> E-mail: judaicst @ucf.edu <br> Moshe Pelli, 407-823-5039

The Interdisciplinary Program in Judaic Studies offers both a Minor and a Certificate. The Program cooperates with the departments of English, Foreign Languages, History, Philosophy, Political Science, and Sociology/Anthropology, and with the Liberal Studies and Women's Studies Programs.

Students who desire to minor in Judaic Studies are encouraged to meet with the program director. The certificate in Judaic Studies will be awarded to students completing 15 credits in Judaic Studies.

## Credit Hour Requirements

Required Courses (or proficiency)
HBR 1120
HBR 1121

## Restricted Upper Division Electives

## Jewish History

JST 3144 Dead Sea Scrolls
JST 3401 The Jewish People I
JST 3402 The Jewish People II
JST 3550 Introduction of Modernism into Judaism
JST 3701 History of the Holocaust

## Literature

JST 3100 The Hebrew Creative Mind
JST 3751 Literature of the Holocaust

## Culture

JST 3820 Modern Hebrew Culture
JST 3810 The Jewish National Movement
JST 3XXX Modern Jewish Experience
Other courses, including special topics, with the approval of the Director
Other Requirements
A grade of "C" (2.0) or better is required in all courses used to satisfy the minor.
Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
At least 12 hours used in the minor must be earned at UCF
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, Co-op, or Independent Study credit can not be used toward the minor.

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Orlando, Florida
(407) 823-2000

# LATIN AMERICAN AREA STUDIES: Minor <br> College of Arts and Sciences <br> Sociology \& Anthropology, PH 403 <br> achase@mail.ucf.edu 

Arlen Chase, 407-823-2124

The minor provides students with a background that can be applied to careers in teaching, government, business, non-profit organizations, as well as international, inter-American and Peninsular Affairs.

## Credit Hour Requirements

18 hours
Admission Requirement
Admission by interview with the program Director

## Required Skills

Students must complete the introductory language
sequence in Spanish or show proficiency

## Restricted Electives

 ( 18 hrs )18 semester hours taken from the following, with 12 of the hours in three different disciplines and at least 6 hours in one. Courses must be selected in consultation with the Director

## Anthropology:

ANT 3168
ANT 3332
ANT 3163
ANT 4824
ANT 4180

Maya Archaeology
People and Cultures of Latin America
Mesoamerican Archaeology
Advanced Archaeological Fieldwork
Seminar in Laboratory Analysis

Art:
ARH 4655 Meso American Art

## Economics:

ECO 2013 Principles of Economics I
ECO 3703 International Economics
Foreign Language:
SPN 2230 Intermediate Spanish Lang \& Civ I
SPN 2231 Intermediate Spanish Lang \& Civ II
any upper division Spanish Language, Literature, Business or Civilization course

## History:

LAH 3130
LAH 3200
LAH 3400
LAH 3470

Latin American History I
Latin American History II
History of Mexico and Central America
History of the Caribbean

## Political Science:

CPO 4303 Comparative Latin American Politics
INR 4243 International Politics of Latin America
CPO 3034 Politics of Developing Areas

## Required Thesis

A thesis must be approved before graduation

## Other Requirements

- A grade of "C" (2.0) or better is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 12 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor without departmental permission.


# LEGAL STUDIES: Minor <br> College of Health and Public Affairs <br> Department of Criminal Justice and Legal Studies, HPA 311 

David B. Slaughter, 407-823-2603
E-mail: dslaught @mail.ucf.edu

Credit Hour Requirements
Required Courses

21 hours
(3 hrs)

PLA 3013 Law and the Legal System
Restricted Upper Division Electives
15 semester hours of legal studies courses selected with the aid of an advisor.
Restricted Electives
(3 hrs)
3 semester hours of law-related courses selected with the aid of an advisor.
Other Requirements
A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
At least 18 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship or Independent Study credit can not be used toward the minor.

MAGAZINE JOURNALISM: Minor
College of Arts and Sciences
School of Communication, COM 258
http://www.cas.ucf.edu/communication journalism@ucf.edu

## Prerequisites

- Grammar and Keyboard proficiency requirement

Credit Hour Requirements
Required courses
JOU 2100 News Reporting
JOU 3510 Magazine Publishing
JOU 4224 Magazine Editing and Production
Restricted Upper Division Electives

18 hours
(9 hrs)
3 hrs
3 hrs
3 hrs
(9 hrs)

ENC 3310 Magazine Writing I
JOU 3200 Editing I
JOU 3202 Editing II
JOU 4300 Feature Writing
JOU 4308 Freelance Writing
JOU 4340C New Media Studies
Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

At least 15 hours used in the minor must be earned at UCF within the School of Communication.

- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor without departmental permission.

MARKETING: Minor
College of Business Administration
Department of Marketing, BA 353
Ronald E. Michaels, 407-823-2108

## Credit Hour Requirements

Required Courses
MAR 3023 Marketing
Restricted Electives

## 15 hours

(3 hrs)
3 hrs
(12 hrs)
Select four
MAR 3323 Integrated Marketing Communication
MAR 3391 Professional Selling
MAR 3403 Sales Force Management
MAR 3503 Customer Behavior
MAR 3613 Marketing Analysis and Research
MAR 3641 Marketing Intelligence
MAR 3880 e-Marketing
**MAR 4156 International Marketing
MAR 4231 Retailing Management
MAR 4711 Sports Marketing
MAR 4712 Healthcare Marketing
*MAR 4803 Marketing Management
*MAR 4804 Marketing Strategy
MAR 4841 Services Marketing
**MAR 4XXX Strategic Foundations in Global e-Business
*Requires prerequisites in addition to MAR 3023
**Either MAR 4156 or MAR 4XXX (not both) may be taken

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least nine hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.

Internship, Independent Study, or Directed Research credit can not be used toward the minor.

MARKETING: Certificates
College of Business Administration
Department of Marketing, BA 353
Ronald E. Michaels, 407-823-2108
*Restricted to Marketing majors

## 9 hours

Certificates will be awarded at the time of degree completion

## Certificate in Selling and Sales Management

MAR 3403 Sales Force Management
**MAR 4941 (internship in sales-related position)
One additional Marketing elective

## Certificate in Retailing Management

MAR 4231 Retailing Management
**MAR 4941 (internship in retail-related position)
One additional Marketing elective

## Certificate in e-Marketing

MAR 3880 e-Marketing
**MAR 4941 (internship in "e"-related position)
One additional Marketing elective

## Certificate in Sports Marketing Management

MAR 4711 Sports Marketing
**MAR 4941 (internship in sports-related position)
One additional Marketing elective

## Certificate in Healthcare Marketing

MAR 4712 Healthcare Marketing
**MAR 4941 (internship in healthcare-related position)
One additional Marketing elective

## Certificate in Services Marketing

MAR 4841 Services Marketing
**MAR 4941 (internship in services-related position)
One additional Marketing elective

* These nine hours count as the nine elective marketing hours required in the major.
** Certificate attainment is subject to the availability of internship opportunities in the area of interest.

MARKETING Track: International Business
College of Business Administration
Department of Marketing, BA 353
Ronald E. Michaels, 407-823-2108

Credit Hour Requirements
Required Courses
MAR 3503 Customer Behavior
MAR 3613 Marketing Analysis and Research
MAR 4803 Marketing Management
Restricted Electives*
(9-12 hrs)
ACG 4AAA International Accounting

27 hours
(9 hrs)

| ECO 4EEE | The Global Economy |
| :---: | :---: |
| FIN 4604 | International Financial Management |
| MAN 4600 | International Management |
| MAN 4156 | International Marketing or |
| MAR 4XXX | Strategic Foundation in Global e-Business |
| Electives** | (6-9 hrs) |
| MAR 3323 | Integrated Marketing Communication |
| MAR 3391 | Professional Selling |
| MAR 3403 | Sales Force Management |
| MAR 3641 | Marketing Intelligence |
| MAR 3880 | e-Marketing |
| MAR 4231 | Retailing Management |
| MAR 4711 | Sports Marketing |
| MAR 4712 | Healthcare Marketing |
| MAR 4804 | Marketing Strategy |
| MAR 4841 | Services Marketing |
| * Required | for BSBA-MAN-IB track. |
| ** IB2000 may be used for up to six credit hours. Other |  |
| approved internship or independent studies may be used for up |  |
| to three credit | hours. |

to three credit hours.

## MASS COMMUNICATION: Minor

## College of Arts and Sciences

School of Communication, COM 228
http://www.cas.ucf.edu/communication
communication@ucf.edu
Mike Meeske 407-823-2681

## Credit Hour Requirements

Restricted Electives

## 18 hours

( 18 hrs )

ADV 3000 Principles of Advertising
FIL 2400 History of Motion Pictures
FIL 3410 History of Animated Films
JOU 3004 History of American Journalism
MMC 3420 Mass Media Research Methods
MMC 4200 Mass Communication Law
MMC 4300 International Media
MMC 4602 Contemporary Media Issues
PUR 4000 Public Relations
RTV 3000 Foundations of Broadcasting
RTV 3200 Production Fundamentals and Aesthetics
RTV 4403 Radio, Television and Society
VIC 3001 Visual Communication

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the School of Communication.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor.


## MATHEMATICS: Minor

College of Arts and Sciences
Department of Mathematics, MAP 201B
http://www.cas.ucf.edu/mathematics

## Credit Hour Requirements

Required Courses
Select one complete Calculus sequence
MAC 2311, MAC 2312, MAC 2313 or
MAC 2281, MAC 2282, MAC 2283
MAP 2302 Differential Equations

## 21 hours

( 15 hrs )
12 hrs

3 hrs
(MAC 2311 and 2312 may be waived by the Department Standards Committee for a student with adequate high school preparation in calculus. The student would increase Restricted Electives' hours accordingly to earn the hours required in the minor)

## Restricted Electives

(6 hrs)
The Restricted Electives must be taken from the Department of Mathematics at UCF and must include one course at the 4000-5000 level.

MAA XXXX (any 3000, 4000, or 5000 level course)
MAD XXXX (any 3000, 4000, or 5000 level course)
MAP XXXX (any 3000, 4000, or 5000 level course)
MAS XXXX (any 3000, 4000, or 5000 level course)
MTG XXXX (any 3000, 4000, or 5000 level course)
any mathematics Honors courses that are approved for this purpose by the Department Standards Committee.
(Either MAS 3105 or MAS 3106 may be used but not both. Courses may be selected from MAA 4226 and MAA 4227, or MAA 5210 but not both.)

## Other Requirements

- A grade of "C" (2.0) or better is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

At least 6 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the minor.

MILITARY SCIENCE: Minor
College of Engineering and Computer Science
Department of Military Science, BLDG 501
LTC John J. Ruzich, 407-823-2430

## Credit Hour Requirements

19 hours
Required Courses
MIS 3301 The Small Unit Leader 4 hrs
MIS 3410 Leadership Responsibilities 4 hrs
MIS 4421 Military Law 4 hrs
MIS 4430 Advanced Military Science 4 hrs
AMH 3540 Military History 3 hrs
Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.

No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship or Independent Study credit can not be used toward the minor.

[^9]| Credit Hour Requirements | $\mathbf{3 0}$ hours |  |
| :--- | :--- | :---: |
| Required Courses | $(\mathbf{2 3} \mathbf{~ h r s})$ |  |
| BSC 2010C | General Biology | 4 hrs |
| MCB 3020C | General Microbiology | 5 hrs |
| PCB 3233 | Immunology | 3 hrs |
| PCB 3233L | Immunology Laboratory | 1 hr |
| PCB 3523 | Molecular Biology I | 3 hrs |
| PCB 4524 | Molecular Biology II | 3 hrs |
| BSC 3404C | Quantitative Biological Methods | 4 hrs |
| Restricted Electives | $\mathbf{( 7 ~ h r s )}$ |  |

At least two courses from the Restricted Elective category of the baccalaureate curriculum.
Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship or Independent Study credit can not be used toward the minor.

MUSIC: Minor
College of Arts and Sciences
Department of Music, CNH 205
http://pegasus.cc.ucf.edu/~ucfmusic
music@ucf.edu
Lee Eubank, 407-823-2869

## Admission Requirement

A successful audition on the student's principal instrument or voice.

## Credit Hour Requirements

Required Courses
MUT 1111 Music Theory IA
MUT 1112 Music Theory IB
MUT 1241 Ear Training and Sight Singing IA 1 hr
MUT 1242 Ear Training and Sight Singing IB 1 hr
MUL 2010 Enjoyment of Music
Major Ensemble- 4 semesters
(credit must spread over at least 4 separate semesters)
Performance level I-2 semesters
Performance level II-2 semesters 4 hrs
(on the same performance medium)
MUS 1010 Music Forum
0 hrs

## Other Requirements

- Two semesters of a major performing organization and two semesters of performance level II, must be completed at UCF
- A minimum GPA of 2.0 is required in all music courses attempted, whether or not used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

At least 12 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the minor.


## MUSIC COMPOSITION: Certificate

College of Arts and Sciences
Department of Music, CNH 205
http://pegasus.cc.ucf.edu/~ucfmusic
$\underline{\text { music@ucf.edu }}$

This certificate is designed for undergraduate students majoring in music who desire to devote time to specific coursework in each of these areas. This is only a component of the B.A. or B.Music degree, provided that the student works with an advisor in the program.

## Admission Requirement

Student must satisfactorily audition for the Department of Music.

Credit Hour Requirements

## Required Courses

MUC 3311 MIDI Sequencing
MUT 4344 Seminar in Music Arranging
MUC 1101C Composition I 1 hr
MUC 2104C Composition II
MUT 3401 Counterpoint 3 hrs
MUS 4932 Independent Study in Composition 2 hrs

## Other Requirements

- Must complete all course and non-course requirements (recitals and proficiency examinations) of the Music major in order to qualify for the certificate within the degree.
- A minimum GPA of 2.0 is required in all music courses attempted, whether or not used to satisfy the certificate.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least nine hours used in the certificate must be earned at UCF within the Department.

No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the certificate.


## MUSIC TECHNOLOGY: Certificate

## College of Arts and Sciences

Department of Music, CNH 205

## http://pegasus.cc.ucf.edu/~ucfmusic

## music@ucf.edu

Lee Eubank, 407-823-2869

This certificate is designed for undergraduate students majoring in music who desire to devote time to specific coursework in each of these areas. This is only a component of the B.A. or B.Music degree, provided that the student works with an advisor in the program.

## Admission Requirement

Student must satisfactorily audition for the Department of Music.

## Credit Hour Requirements

Required Courses
MUC 3311 MIDI Sequencing I
MUC 4441 MIDI Sequencing II
MUS 4347C Digital Notation
MUC 1101C Composition I
MUN 2023 Synthesizer Ensemble

## 11 hours

(11 hrs)
3 hrs
3 hrs
3 hrs
1 hr
1 hr

## Other Requirements

- Must complete all course and non-course requirements (recitals and proficiency examinations) of the Music major in order to qualify for the certificate within the degree.
- A minimum GPA of 2.0 is required in all music courses attempted, whether or not used to satisfy the certificate.

Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
At least nine hours used in the certificate must be earned at UCF within the Department.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, Co-op, or Independent Study credit can not be used toward the certificate.

NONPROFIT MANAGEMENT: Certificate
College of Health \& Public Affairs
Department of Public Administration, HPA II 238
http://www.cohpa.ucf.edu/pubadm/
Mary Ann Feldheim, 407-823-2604

The Certificate program will provide basic knowledge in nonprofit management, resource development, volunteer management, strategic planning, and program evaluation for those students interested in nonprofit sector management as a career.

## Credit Hour Requirements

Required Courses
PAD 4144
PAD 4148
PAD 4147
PAD 4327
PAD 4153

## Restrictive Elective Course

See advisor for approved courses.
Other Requirements
A minimum grade of " C " (2.0) is required in each course.
Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.

- At least 12 hours used in the program must be earned at UCF within the Department of Public Administration.

No credit by exam (CLEP, TSD, Military credit) may be used.

# NORTH AMERICAN INDIAN STUDIES: Minor 

College of Arts and Sciences
Department of Sociology and Anthropology, PH 403
David E. Jones, 407-823-2227

The North American Indian Studies minor will develop a more sophisticated understanding and appreciation of the history and culture of the North American Indians. The minor is especially appropriate for all UCF undergraduates.

## Minor Requirements:

a. Interview with the North American Indian Studies Director.
b. Consultation with the Director to develop a program of study and plan course selections.
c. Final approval of the minor is contingent upon completion of a thesis paper under the guidance of a faculty research director.

## Credit Hour Requirements

## (18 hours)

Required Courses
(6 hours)
ANT 3312 Survey of the North American Indians 3 hrs
ANT 4912 Directed Thesis Research 3 hrs
Restricted Electives (12 hours)
Courses used in the minor must be taken in at least two departments. Select four courses from the following list.

ANT 3245 Religions of the North American Indians 3 hrs
ANT 3313 Indians of the North American High Plains 3 hrs
ANT 3311 Indians of the Southeastern United States 3 hrs
ANT 3XXX Florida Archaeology 3 hrs
ANT 4906 Independent Study 3 hrs
ANT 3314 Indians of the Northeast Woodlands ..... 3 hrs
ANT 3318 Indians of the Northwest Coast ..... 3 hrs
AMH 3441 History of the Frontier: Eastern America ..... 3 hrs
AMH 4110 Colonial America ..... 3 hrs
AMH 4112 The Atlantic World ..... 3 hrs
AML 3XXX Native American Literature ..... 3 hrs
ANT 4153 North American Archaeology ..... 3 hrs
SYD 3752 Modern Law in Indian Country ..... 3 hrs
SYD 3751 North American Indian Women Today ..... 3 hrs
SYD 3750 Contemporary Social Issues and
North American Indians ..... 3 hrs
Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
" S " grades are not accepted.
At least 15 hours used in the minor must be earned at UCF.
- No credit by exam (CLEP, TSD, Military credit) may be used.


## ORGANIZATIONAL COMMUNICATION: Minor

## College of Arts and Sciences

School of Communication, COM 258
communication@ucf.edu
K. Phillip Taylor, 407-823-2681

Credit Hour Requirements
Required Courses
COM 3120 Organizational Communication
COM 3311 Communication Research Methods 3 hrs

## Restricted Upper Division Electives

COM 3011C Communication and Human Relations
COM 3110 Business and Professional Communication
SPC 3425C Group Interaction and Decision-Making
SPC 3445 Leadership Through Oral Communication
COM 4461 Intercultural Communication
COM 4462 Conflict Management
Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the School of Communication.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor.


## PHILOSOPHY: Minor <br> College of Arts and Sciences <br> Department of Philosophy, CNH 411 <br> http://www.cas.ucf.edu/philosophy <br> philosophy@ucf.edu <br> Shelley Park, 407-823-2273

The Philosophy minor is intended to provide a limited, yet substantive, introduction to the philosophy program in Knowledge, Responsibility, and Society. Students, in consultation with a departmental advisor, will select courses in accordance with the distributions listed below.

Credit Hour Requirements
Philosophical Foundations:

21 hours
(9 hrs)

Select one course from each of the following groups:

| Reasoning |  |  |
| :---: | :---: | :---: |
| PHI 2011 | Philosophical Reasoning |  |
| PHI 2101 | Critical Thinking |  |
| PHI 2100 | Formal Logic I |  |
| Ethics |  |  |
| PHI 3670 | Ethical Theory |  |
| Knowledge |  |  |
| PHI 3320 | Philosophy of Mind |  |
| PHI 4341 | Ways of Knowing |  |
| PHI 4300 | Theories of Knowledge |  |
| Disciplinary and Interdisciplinary Knowing |  | (3 hours) |
| Select one course |  |  |
| PHI 3400 | Philosophy of Law |  |
| PHI 3700 | Philosophy of Religion |  |
| PHI 4400 | Philosophy of Science |  |
| PHI 4420 | Philosophy of Social Science |  |
| PHI 3451 | Philosophy of Psychology |  |
| Applicatio |  | (6 hours) |
| Select two courses |  |  |
| PHI 3033 | Philosophy, Religion, and the Environment |  |
| PHI 3601 | Practical Wisdom |  |
| PHI 3640 | Environmental Ethics |  |
| PHI 3941 | Philosophy Practicum |  |
| PHI 4931 | Philosophy in the News |  |
| PHI 4633 | Ethics and Biological Science |  |
| PHI 4804 | Critical Theory |  |
| PHM 3100 | Freedom and Justice |  |

## Upper Division Restricted Elective <br> (3 hours)

Select an additional course from those listed above or another upper division Philosophy course
Note: Appropriate Special Topics in Philosophy may be substituted for some core courses with prior approval by departmental advisor.

## Other Requirements

- A grade of "C" (2.0) or better is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor without prior approval by the Chair.
- Any substitutions must be approved by the department prior to being taken.

PHYSICS: Minor<br>College of Arts and Sciences<br>Department of Physics, MAP 310<br>http://www.physics.ucf.edu<br>physics@ucf.edu<br>Ralph Llewellyn, 407-823-2325

## Credit Hour Requirements

Required Courses
PHY 2048 Physics for Eng and Sci I
PHY 2048L Physics Laboratory for Eng and Sci I 1 hr

| PHY 2049 | Physics for Eng and Sci II | 3 hrs |
| :--- | :--- | :--- |
| PHY 2049L | Physics Laboratory for Eng and Sci II | 1 hr |
| PHY 3101 | Physics for Eng and Sci III | 3 hrs |
| Restricted Upper Division Electives | (9 hrs) |  |

Selected from upper-level Physics lecture or laboratory courses appropriate for majors

## Other Requirements

A minimum GPA of 2.0 is required in all courses used to satisfy the minor.

- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 12 hours used in the minor must be earned at UCF within the department.

No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the minor.


## POLITICAL SCIENCE: Minor <br> College of Arts and Sciences <br> Department of Political Science, CNH 415 <br> http://pegasus.cc.ucf.edu/~politics

politics@ucf.edu
Robert Bledsoe, 407-823-2608

## Credit Hour Requirements

Required Course
POS 2041 American National Government
Restricted Upper Division Electives

18 hours
(3 hrs)
3 hrs
( 15 hrs )

- Five upper division Political Science courses (selected with the aid of a departmental advisor)
- Only three hours of POS 4941 (Internship) may be counted


## Other Requirements

A 2.0 GPA is required in all courses used to satisfy the minor.
Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
At least 12 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, Co-op, or Independent Study credit can not be used toward the minor without departmental permission.

## POLITICAL SCIENCE/PRELAW: Minor

College of Arts and Sciences
Department of Political Science, CNH 415
http://pegasus.cc.ucf.edu/~politics
politics@ucf.edu
Roger Handberg, 407-823-2608

Credit Hour Requirements
Required Courses
POS 2041 American National Government
POS 4284 Judicial Process and Politics
Restricted Elective
INR 4401 International Law I
INR 4402 International Law II
POS 4603 American Constitutional Law
POS 4604 American Constitutional Law II
Restricted Upper Division Electives
(9 hrs)

- Three Upper Division Political Science Courses (selected with the aid of a departmental advisor)
- Only three hours of POS 4941 (Internship) may be counted

Other Requirements

A 2.0 GPA is required in all courses used to satisfy the minor.
Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
At least 12 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, Co-op, or Independent Study credit can not be used toward the minor without departmental permission.

## PSYCHOLOGY: Minor

College of Arts and Sciences
Psychology Department, PH 302
http://pegasus.cc.ucf.edu/~psych
psychology@ucf.edu
Jack McGuire, 407-823-2216
Undergraduate Advising: K. Mottarella 407-823-2219
Psychology Advising Center, PH 305G

The Psychology Department offers minors in several emphasis areas; Clinical Psychology, Human Factors Psychology, and Industrial/Organizational Psychology. The guiding principle in design of a minor is to select those Psychology courses which will strengthen the graduate school preparation and/or the marketability of the student's major program. Emphasis areas will not appear on the transcript.

## Credit Hour Requirements

## Required Courses

PSY 2013 General Psychology
STA 2014C Principles of Statistics
or
STA 2023 Statistical Methods I
PSY 3214C Research Methods in Psychology 4 hrs

12 hours of Psychology courses

## Other Requirements

A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

- At least 12 hours used in the minor must be earned at UCF within the department.

No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, Co-op, or Independent Study credit can not be used toward the minor.

## PUBLIC ADMINISTRATION: Minor

College of Health and Public Affairs
Department of Public Administration, HPA II 238
Jo A. Kiefer, 407-823-2604
E-mail: jkiefer@mail.ucf.edu

Credit Hour Requirements
Required Courses
PAD 3003
PAD 4034
PAD 4104
PAD 4204
PAD 4414
PAD 4720

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.

No credit by exam (CLEP, TSD, Military credit) may be used.
Internship or Independent Study credit can not be used toward the minor.

## RELIGIOUS STUDIES: Minor <br> College of Arts and Sciences <br> Philosophy Department, CNH 411 <br> http://www.cas.ucf.edu/philosophy <br> philosophy@ucf.edu

Steve Levensohn, 407-823-2273

The religious studies minor provides a limited yet coherent range of courses which introduce the student to a range of religious institutions and ideas. Courses are drawn from the departments of Anthropology \& Sociology, Art, English, History, Judaic Studies, Philosophy, Political Science, and Psychology, and are to be selected in consultation with the Religious Studies advisor.

## Credit Hour Requirements

## Required Courses

REL 2300 World Religions
Restricted Electives

## 21 hours

(3 hrs)
3 hrs
(18 hrs)

See department for approved list of courses

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 12 hours used in the minor must be earned at UCF.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor without prior approval by the Director.


## RUSSIAN AREA STUDIES: Minor

College of Arts and Sciences

History Department, CNH 551<br>history@ucf.edu

Richard Crepeau, 407-823-2224

## Credit Hour Requirements

Language requirement
2 semester hours or proficiency

## Required Courses

EUH 4576
hrs
CPO 4643 Government and Politics of Russia 3 hrs
PHH 3041
Restricted Upper Division Electives
EUH 4571
EUH 4574
CPO 3614 Politics of Eastern Europe
ECO 3703 International Economics
INR 4035 International Political Economy
EUH 4582

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.

Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

- At least 12 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.

Internship, Co-op, or Independent Study credit can not be used toward the minor.

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Orlando, Florida
(407) 823-2000

SOCIAL SCIENCES - INTERDISCIPLINARY: Minor
College of Arts and Sciences

## Liberal Studies Program <br> http://www.cas.ucf.edu/liberal_studies

ls@mail.ucf.edu
Don Jones, 407-823-0144

Credit Hour Requirements
Required Courses

## 21 hours

(3 hrs)

A methods course, selected from
POS 3703 Scope and Methods of Political Science
PSY 3214C Research Methods in Psychology
SYA 3300 Research Methods

## Restricted Electives

Select a min. of six hours in each of 3 different departments
Communication
Economics
Political Science
Public Service Administration
Psychology
Sociology \& Anthropology
Other Requirements
A minimum GPA of 2.0 is required in all courses used to satisfy the minor.

- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

At least 15 hours used in the minor must be earned at UCF.
At least 15 hours must be upper division classes
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, Co-op, or Independent Study credit can not be used toward the minor.
SOCIOLOGY: MinorCollege of Arts and Sciences
Department of Sociology \& Anthropology, PH 403http://www.cas.ucf.edu/soc_anthro/firstpage.html
sociology@ucf.edu
Jay Corzine, 407-823-2227

## Credit Hour Requirements

Required Courses
SYG 2000 General Sociology
Restricted Electives
2000-4000 level Sociology courses
Restricted Upper Division Electives
3000-4000 level Sociology courses

## Other Requirements

Maintain a minimum GPA of at least 2.0 in all courses used to satisfy the minor.
Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
At least 15 hours used in the minor must be earned at UCF within the department
No credit by exam (CLEP, TSD, Military credit) may be used.
Co-op or internship credit can not be used toward the minor.
No more than 3 hours of Independent Study credit can be used toward the minor.

## SPACE STUDIES: Minor

College of Engineering and Computer Science
Department of Mechanical, Materials and Aerospace Engineering, ENGR 381
E. Ramon Hosler, 407-823-5828

Fax 407-823-0208

In response to the needs of the Central Florida space community, UCF offers a multidisciplinary Minor in Space Studies. It is intended for students of all disciplines and includes courses from aerospace engineering, electrical engineering, environmental engineering, instructional programs, physics, physical education, and political science.

## Credit Hour Requirements

## Required Courses

AST 2002 Astronomy
EGN 2930 ST: Space Science and Technology
GEO 4131C Remote Sensing of the Environment
Restricted Electives
EAS 3010 Fundamentals of Aerospace Flight
EAS 3101 Fundamentals of Aerodynamics
EAS 3530 Space Systems Concepts
EAS 4505 Orbital Mechanics
EGN 4830 Telecommunications
GEO 1200 Physical Geography
GEO 2370 Resources Geography
INR 4404 Space Law
PET 4351 Applied Exercise and Human Physiol
PUP 3508 Space Studies
PUP 4510 Space Policy

## 21 hours

(9 hrs)
3 hrs
3 hrs
3 hrs
( 12 hrs )

## Other Requirements

Formal declaration of the minor should occur before nine credit hours have been completed.
A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
At least 15 hours used in the minor must be earned at UCF.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship or Independent Study credit can not be used toward the minor.

## SPANISH: Minor

## College of Arts and Sciences

Foreign Languages and Literatures, CNH 523

## http://pegasus.cc.ucf.edu/~forlang

foreignlanguage@ucf.edu
C. E. Stebbins, 407-823-2472

## Credit Hour Requirements

## 18 hours

## Restricted Electives

- Select six upper division courses in Spanish, including the 3000-level advanced grammar (SPA 3300), advanced oral communication (SPA 3760), and composition courses (SPA 3420).
- A native or near-native speaker must substitute an alternate upper division course for the advanced oral communication course. Approval of a departmental advisor is required prior to registration.


## Other Requirements

A minimum grade of "C" (2.0) is required in all courses used to satisfy the minor.
Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
At least 15 hours used in the minor must be earned at UCF within the department.
No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, Co-op, or Independent Study credit can not be used toward the minor without

STATISTICS: Minor<br>College of Arts and Sciences<br>Statistics Department, CC II 212<br>http://www.cas.ucf.edu/statistics<br>statistics@ucf.edu<br>L. Hoffman, 407-823-5525

Credit Hour Requirements
Required Courses
STA 2023 Statistical Methods I
or
STA 3032 Probability and Statistics for Engineers
STA 4163 Statistical Methods II 3 hrs
STA 4164 Statistical Methods III 3 hrs
Restricted Upper Division Electives
(9 hrs)

STA 3xxx-4xxx courses
(STA 2023 or STA 3032 or the equivalent can not be used as a restricted elective)
Other Requirements
A grade of "C" (2.0) is required in all courses used to satisfy the minor.

- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.

No credit by exam (CLEP, TSD, Military credit) may be used.
Internship, Co-op, or Independent Study credit can not be used toward the minor.

## TECHNOLOGY AND SOCIETY: Minor

## College of Engineering and Computer Science

Richard G. Denning, ENGR 207, 407-823-2156

The College of Engineering offers a minor in Technology and Society to interested UCF students. The minor is intended for students not enrolled in the College of Engineering, although students in the College may also be awarded the minor.

## Credit Hour Requirements

## 18 hours

Suggested Prerequisite Courses
MAC 1105 College Algebra
GEP Cultural and Historical Foundations

## Restricted Upper Division Electives

A minimum of nine hours must be taken from the EGN/ETI prefix courses listed below
EGN 4033 Technology and Social Change
EGN 4813 Science in History
EGN 4814 Technology in History
EGN 4818 Technology in North America
EGN 4823 Topics in Urban Development
EGN 4824 Energy and Society
EGN 4825 Environment and Society
EGN 4830 Telecommunications
EGN 4832 Computers, Cybernetics and Society
EGN 4844 Man and Machine
ETI 3671 Technical Economic Analysis
ETI 4205 Applied Logistics
ETI 4700 Occupational Safety
GEO 2370 Resources Geography
LIT 3313 Science Fiction

LIT 4433 Survey of Technical and Scientific Literature
PUP 3204 Environmental Politics
PUP 4503 Government and Science
PUP 4510 Space Policy
Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades less than "C-" (1.75) or "S" grades from other institutions are not accepted.
- At least 15 hours used in the minor must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship or Independent Study credit can not be used toward the minor.

THEATRE - GENERAL: Minor<br>College of Arts and Sciences<br>Theatre Department, THE 120<br>http://pegasus.cc.ucf.edu/~theatre<br>theatre@ucf.edu

Joe Rusnock, 407-823-2861

## Credit Hour Requirements

## 27 hours

## Entrance Requirement

A successful interview and audition or portfolio review

## Required Courses

(27 hrs)
Note: The number assigned many courses will change.
Use the Prefix and title to determine the proper course.

THE 1020 Theatre Survey
THE 2090* Theatre Production/Performance I 1 hr
THE 3303 Play Analysis

3 hrs

3 hrs

THE 2091* Theatre Production/Performance II 1 hr THE 3092* Theatre Production/Performance III 1 hr THE 3110 Theatre History I 3 hrs

THE 3111 Theatre History II 3 hrs
THE 3305 Dramatic Literature I 3 hrs
THE 2271 Performance Studies 3 hrs
THE 2261 Technical Theatre Production 3 hrs
THE 3306 Dramatic Literature II 3 hrs

* Course must be taken at UCF


## Other Requirements

Participation on a minimum of one departmental production during both the Fall and Spring terms for four semesters

- A grade of "C" (2.0) is required in all courses used to satisfy the minor.

Grades below "C" (2.0) or "S" grades from other institutions are not accepted.

- At least 18 hours used in the minor, including those marked by an asterisk, must be earned at UCF within the department.
- No credit by exam (CLEP, TSD, Military credit) may be used.

Internship, Co-op, or Independent Study credit can not be used toward the minor.

## TRANSLATION AND INTERPRETATION: Certificate

College of Arts and Sciences
Foreign Languages and Literatures, CNH 505
http://pegasus.cc.ucf.edu/~forlang
foreignlanguage@ucf.edu
Maria Redmon, CNH 512, 407-823-5738
redmon@ucf.edu

## Required Skills

Students must pass an oral exam for proficiency in Spanish and English before being admitted to the certificate program.

## Required Courses

## (9 hours)

SPT 3800 Spanish Translation and Interpretation 3 hrs
SPT 3809 Medical Span Trans/Interp 3 hrs
SPT 3831 Spanish Legal Trans/Interp 3 hrs
Restricted Upper Division Electives (9 hours)
SPN 3933 Spanish Across the Curriculum 3 hrs
SPN 4941 Internship 3 hrs
Any upper division SPN or SPT course with advisor's approval

## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the certificate.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 12 hours used in the certificate must be earned at UCF within the Department of Foreign Languages and Literatures.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Independent Study or Co-op credit can not be used toward the certificate.
- Satisfactory completion of translation and interpretation exit exam.


## WOMEN'S STUDIES: Minor

College of Arts and Sciences
Women's Studies Program, CNH 207A
Cecilia Rodriguez Milanes, 407-823-6502,
email: cmilanes@mail.ucf.edu

The minor in Women's Studies provides students with an opportunity to learn about women's
historical and contemporary roles, gain a working knowledge of interdisciplinary feminist scholarship, and reflect on their life experiences as shaped by gender and other forms of diversity. Courses are drawn from the departments of Art, Communications, Criminal Justice, English, Exceptional and Physical Education, Health Professions and Physical Therapy, History, Philosophy, Political Science, Psychology, Nursing, Social Work, Sociology and Anthropology, and Theatre.

## Credit Hour Requirements

## Required Courses

WST 3015 Introduction to Women's Studies 3 hrs

Select one course from the Feminist Theory group:
PHM 3123 Feminist Theories or 3 hrs LIT 4554

Upper Division Electives
Select two courses in each of two areas listed below:
Women's History
AMH 3561 Women in American History I 3 hrs
AMH 3562 Women in American History II 3 hrs
ASH 4304 Women in China 3 hrs
EUH 4610

## Representations of Women

AML 3283 Contemporary Amer. Women's Fiction 3 hrs
ARH 4458 Women and Art in 20th Cent America 3 hrs
ARH 4892 Women in Art 3 hrs
COM 4014 Gender Issues in Communication 3 hrs
FIL 3309 Women in Film 3 hrs
LIT 3383 Women in Literature 3 hrs
PHI 3022 Sexuality, Gender \& Philosophy 3 hrs

## Women's Wellness

NUR 4935 Women's Health Issues 3 hrs
SOP 2772 Sexual Behavior 3 hrs

SOP 3742 Psychology of Women 3 hrs

## Women and Social Policy

ANT 3302 Sex, Gender and Culture 3 hrs
ANT 4308 Women and Gender Issues in Lat Am 3 hrs
CCJ $4670 \quad 3 \mathrm{hrs}$
CCJ 4681 Domestic Violence and Justice System 3 hrs
CPO 4710 Women and Comparative Politics 3 hrs
INR 4085 Women, Gender, and Globalization 3 hrs
PUP 4323 Women and Politics 3 hrs
SYD 3800 Sex Roles in Modern Society 3 hrs
SYO 4100 Family Trends 3 hrs
SYP 4810 Women in Contemporary Society 3 hrs

* Students may be allowed to take one course from a list of restricted courses.


## Other Requirements

- A minimum GPA of 2.0 is required in all courses used to satisfy the minor.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 12 hours used in the minor must be earned at UCF.
- No credit by exam (CLEP, TSD, Military credit) may be used.
- Internship, Co-op, or Independent Study credit can not be used toward the minor without approval of the program coordinator.
- No more than one 2000 level course can be used toward the minor.


## WOMEN'S STUDIES: Certificate

College of Arts and Sciences
Women's Studies Program, CNH 207A
Cecilia Rodriguez Milanes, 407-823-6502,

The certificate program in Women's Studies is designed to provide students with a basic, working knowledge of gender roles and women's issues. The certificate program is open to both degree-seeking and non degree-seeking students, but should be particularly beneficial to students in professional degree programs who will serve women and/or girls as a client population, but whose elective hours are restricted.

## Credit Hour Requirements

## Required Course:

WST 3015 Introduction to Women's Studies

## Restricted Electives

See listing for minor. Certificate students are exempt from the distribution requirements and should select foundations courses that best complement their major area of study.

## Internship Option:

(0-3 hrs)
Internships required by a student's major degree program may count for credit toward the certificate, if placement is substantively related to women and/or women's issues.

## Other Requirements

- A GPA of 2.0 or better is required in all courses used to satisfy the certificate.
- Grades below "C" (2.0) or "S" grades from other institutions are not accepted.
- At least 9 hours used in the certificate must be earned at UCF.

No credit by exam (CLEP, TSD, Military credit) may be used.

- Internship, Co-op, or Independent Study credit can not be used toward the certificate without approval of the program director.
- No more than one 2000 level course can be used toward the certificate.


## ADDITIONAL UCF PROGRAMS

## FOREIGN STUDY ABROAD: Program

## College of Arts and Sciences

Foreign Languages and Literatures, CNH 201

## http://pegasus.cc.ucf.edu/~forlang

## foreignlanguage@ucf.edu

## Heinrich Barsch 407-275-4397

The Department of Foreign Languages and Literatures has been offering a Summer Study program in Spain since 1972, in Italy since 1975, in Québec Canada since 1990, and in Germany since 1991. These programs are approved by the State of Florida Board of Regents and are offered annually. Credit courses are available in language at various levels. The programs are open to all students of the State University System of Florida and to others as well.

## Jonquière, Québec, Canada

Jonquière is a modern city of 60,000 in the picturesque and mountainous Lac Saint-Jean region, about 120 miles north of Québec City. Students live with carefully selected French-speaking families, receive 6 hours or more of classroom instruction in French each weekday, and must pledge to speak French only at all times during the program. Courses in French language and civilization are offered at the intermediate and advanced levels, and all participants earn 8 credits. Educational weekend excursions and a number of socio-cultural activities are included. The program takes place during Summer A term.

## Koblenz, Germany

Koblenz is a charming city located in one of the most picturesque regions of Europe, at the junction of the Rhine and Moselle rivers. Since France, Belgium and Luxemburg are very close, the city has always had an international flair. The program is housed at the University of Koblenz and offers courses in German language and civilization at the intermediate and advanced levels; all participants earn 8 credits. A number of spectacular excursions are included. This program takes place during Summer B term.

## Urbino, Italy

The city of Urbino, on the slopes of the Eastern Appennines, is one of the major centers for the study of Renaissance art and architecture. The modern university sponsors a number of conventions of learned societies and cultural events in the summer. Courses in Renaissance art and modern Italian letters are given in English; language courses are conducted in Italian. A number of weekend excursions throughout central Italy are included. This popular program takes place during Summer B term.

## Madrid and Andalucía, Spain

This program is intended for students who desire to begin or continue their study of Spanish language
and civilization. Students are housed with select Spanish families and earn 8-9 semester credits for the program. Language and literature courses are offered from the beginning through advanced levels. This intense learning experience includes a tour of Andalucía and its famed cities. The program takes place during Summer B term.

## ENGLISH STUDY ABROAD: Program

## College of Arts and Sciences

Department of English, CNH 301

## english@ucf.edu

Anna Lillios, 407-823-2212, lillios@ucf.edu

The Department of English has established an exchange with University College Northampton (UCN) in England. Students may participate in the reciprocal-exchange program for a semester or a year. Credit courses are available in many different fields, besides English. The semester and yearlong programs are open to UCF students of all majors who have a 3.0 GPA .

## Northampton, England, and Galway, Ireland

University College of Northampton is located in the heart of England one hour from London, Oxford, and Cambridge. Northampton is both an ancient county town and a prosperous modern city. The 100 -acre campus has up-to-date classrooms and facilities that accommodate 10,000 students in over 100 degree programs. Students who study in England enroll at UCF and take a wide variety of courses for full credit at UCN.
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Statewide Articulated A.S. TO B.S. Programs

The University offers five specialized degree programs for students who have graduated from a Florida Community College with an A.S. degree in one of the following five programs: Electrical Engineering Technology, Business Administration, Hospitality Management, Nursing, and Radiologic Technology. These programs were approved in the Fall of 1999 by the State Board of Education for implementation starting in Fall 2000. UCF is the only university in the State University System to implement all five of these articulation agreements.

Students who wish to transfer to UCF under the provisions of the statewide articulated A.S. to B.S. programs must meet specific criteria:

1. Students must graduate with the specific program and new A.S. degree in Fall 2000 or later.
2. Students may only transfer from the specific major to the specific major; e.g., Business Administration to General Business. One cannot, for example, transfer an A.S. in Business Administration to a B.S. in Accounting under this agreement.
3. Students who have graduated with an A.S. degree prior to Fall 2000, are not eligible to participate in these programs. The new community college A.S. degrees have slightly different requirements. Students who do not have the new A.S. should complete their general education at the community college and then transfer into the appropriate non-A.S. to B.S. program at UCF.
4. Students should write on the front of their application for admission to UCF, "A.S. - B.A./B.S." designating their desire to participate in the statewide articulation agreement.
5. UCF will allow students to complete the UCF required General Education courses at their community college while they are enrolled and working on their degree at UCF. However, students cannot be transient in their last 30 hours at UCF.

Applicants who qualify for this program are not guaranteed admission to the limited access programs in Nursing and Radiologic Sciences or programs that require specific grades on particular courses for admission.

Students should consult with their community college advisor when pursuing one of these programs to
make sure they have met all of the appropriate requirements for the degree, including the necessary General Education courses and common program prerequisites. Students are still required to complete all of the components of the Gordon Rule and CLAST prior to graduation from UCF. Students may be required to complete all common program prerequisites for these majors prior to enrollment in upper division course work. The total hours required for the General Education Program (GEP) will be 36 hours, excluding any necessary remediation.

Students admitted into these programs must meet the requirements as stated in the programs listed below. Students who change majors out of these programs must adopt the requirements of the most current catalog for the selected major, including the required UCF General Education Program.

Questions concerning the requirements of these majors should be referred to the appropriate academic department or the Director of Transfer Services, (407) 823-2231.

- Electrical Engineering Ttechnology (BSEET) AS to BSEET Track
- General Business (B.S.B.A.) AS to BS Track
- Hospitality Management (B.S.) A.S. to B.S. Track
- Nursing (B.S.N.) AS to BSN Track
- Radiologic Sciences (B.S.) AS to BS Track
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Course Descriptions
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## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{I}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Common Course Numbering System

## Classification of Courses

The University course numbering system is as follows:
0-0999 Subcollegiate level and not counted in meeting degree requirements.
1000-2999 Freshman and sophomore level courses and are designed primarily for these students.
3000-4999 Junior and senior level courses (upper-division) and are designed primarily for these and other advanced students. When approved for inclusion in an individual program of graduate study by a supervisory committee approved by the Office of Graduate Studies, selected 4000-4999 courses may serve the needs of individual graduate students.

5000-5999 Beginning graduate and advanced undergraduate level courses - open to graduate students and those seniors who receive approval of the appropriate Dean(s).

6000-6999 Courses open only to graduate students. (Seniors, within nine hours of graduation that have a minimum 3.0 GPA, and do not register for more than twelve hours may request college permission to take a 6000-level class.)

7000-7999 Doctoral-level courses.

## Florida's Statewide Course Numbering System

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's

Statewide Course Numbering System. This common numbering system is used by all public postsecondary institutions in Florida and by eighteen participating non-public institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions.

Each participating institution controls the title, credit, and content of its own courses and recommends the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have meaning in the Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the "SCNS taxonomy." Descriptions of the content of courses are referred to as "course equivalency profiles."

## Example of Course Identifier

$\left.\begin{array}{llllll}\text { Prefix } & \text { Level Code } & \text { Century Digit } & \begin{array}{l}\text { Decade } \\ \text { Digit }\end{array} & \text { Unit Digit } & \text { Lab Code } \\ & \text { (first digit) } & \text { (second digit) } & \begin{array}{l}\text { (third digit) }\end{array} & \text { (fourth digit) }\end{array}\right]$

## General Rule for Course Equivalencies

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between participating institutions that offer the course, with a few exceptions. (Exceptions are listed below.)

For example, a survey course in social problems is offered by 31 different post-secondary institutions. Each institution uses "SYG_010" to identify its social problems course. The level code is the first digit and represents the year in which students normally take the course at a specific institution. In the SCNS taxonomy, "SYG" means "Sociology, General," the century digit "0" represents "Entry-Level General Sociology," the decade digit "1" represents "Survey Course," and the unit digit "0" represents

In science and other areas, a " C " or " L " after the course number is known as a lab indicator. The " C " represents a combined lecture and laboratory course that meets in the same place at the same time. The "L" represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which meets at a different time or place.

Transfer of any successfully completed course from one institution to another is guaranteed in cases where the course to be transferred is equivalent to one offered by the receiving institution. Equivalencies are established by the same prefix and last three digits and comparable faculty credentials at both institutions. For example, SYG 1010 is offered at a community college. The same course is offered at a state university as SYG 2010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 2010 at the state university if the student transfers. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to the native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed which have not been designated as equivalent.

## The Course Prefix

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or sub-category of
knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix to identify the course.

## Authority for Acceptance of Equivalency Courses

State Board of Education Rule 6A-10.024(19), Florida Administrative Code, reads:
"When a student transfers among postsecondary institutions that are fully accredited by a regional or national accrediting agency recognized by the United States Department of Education and that participate in the common course designation and numbering system, the receiving institution shall award credit for courses satisfactorily completed at the previous participating institutions when the courses are judged by the appropriate common course designation and numbering system faculty task forces to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or non-public control of the previous institution. The award of credit may be limited to courses that are entered in the course numbering system. Credits so awarded shall satisfy institutional requirements on the same basis as credits awarded to native students."

## Exceptions to the General Rule for Equivalency

The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution:
A. Courses in the _900-_999 series (e.g., ART 2905)
B. Internships, practica, clinical experiences, and study abroad courses
C. Performance or studio courses in Art, Dance, Theatre, and Music
D. Skills courses in Criminal Justice
E. Graduate courses
F. Courses not offered by the receiving institution

College preparatory and vocational preparatory courses may not be used to meet degree requirements and are not transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to Dr. David R. Dees in Academic Services, MH 210, Phone 407-823-2691 or the Florida Department of Education, K-16 Articulation, 401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested from (850) 488-6402 or SunCom 278-6402.

## Alphabetical listing of prefixes:

ACG Accounting General
ACO Accounting: Occupational Technical
ADE Adult Education
ADV Advertising
AFA African-American Studies
AFH African History
AFR Air Force ROTC
AMH American History
AML American Literature

| ANG | Anthropology - Graduate |
| :--- | :--- |
| ANT | Anthropology |
| APA | Applied Accounting |
| APB | Applied Biology |
| ARE | Art Education |
| ARH | Art History |
| ART | Art |
| ASH | Asian History |
| AST | Astronomy |
| AVM | Aviation Management |
| BCH | Biochemistry |
| BCN | Building Construction |
| BOT | Botany |
| BSC | Introductory Biology |
| BTE | Business Teacher Education |
| BUL | Business Law |
| CAP | Computer Applications |
| CBH | Comparative Psychology \& Animal Behavior |
| CCE | Civil Construction Engineering |
| CCJ | Criminology \& Criminal Justice |
| CDA | Computer Design/Architecture |
| CEG | Civil Geotechnical Structures |
| CES | Civil Engineering Structure |
| CET | Computer Engineering Technology |
| CGN | Civil Engineering |
| CGS | Computer General |
| CHI | Chinese |
| CHM | Chemistry |
| AR |  |
| AR |  |


| CHS | Chemistry - Specialized |
| :---: | :---: |
| CIS | Computer \& Information Systems |
| CJT | Criminal Justice Technology |
| CLA | Classical and Ancient Studies |
| CLP | Clinical Psychology |
| COC | Computer Concepts |
| COE | Cooperative Education |
| COM | Communications |
| COP | Computer Programming |
| COT | Computer Theory |
| CPO | Comparative Politics |
| CRM | Computer Resources/Management |
| CRW | Creative Writing |
| CWR | Civil Water Resources |
| CYP | Communication Psychology |
| DAA | Dance Activities |
| DAE | Dance Education |
| DEP | Development Psychology |
| EAB | Experimental Analysis of Behavior |
| EAS | Engineering: Aerospace |
| ECM | Engineering: Computer Mathematics |
| ECO | Economics |
| ECP | Economic Problems \& Policy |
| ECS | Economic Systems \& Development |
| EDA | Education: Administration |
| EDE | Education: Elementary |
| EDF | Education: Foundation |
| EDG | Education: General |


| EDH | Education: Higher |
| :--- | :--- |
| EDM | Education: Middle School |
| EDP | Education: Psychology |
| EDS | Education: Supervision |
| EEC | Education: Early Childhood |
| EED | Education: Emotional Disorders |
| EEL | Engineering: Electrical |
| EES | Environmental Engineering Science |
| EET | Electrical Electronic Technology |
| EEX | Education: Exceptional Child - Care Competencies |
| EGC | Guidance \& Counseling |
| EGM | Engineering: Mechanical |
| EGN | Engineering: General |
| EGS | Engineering: Support |
| EIN | Engineering: Industrial |
| ELD | Education: Specific Learning Disabilities |
| EMA | Engineering: Materials |
| EME | Education: Technology \& Media |
| EML | Engineering: Mechanical |
| EMR | Education: Mental Retardation |
| ENC | English Composition |
| ENG | English - General |
| ENL | English Literature |
| ENU | Engineering: Nuclear |
| ENV | Engineering: Environmental |
| ENY | Entomology |
| EPH | Education: Physical \& Multiple Handicapped |
| ESE | Education: Secondary |
| ED |  |
| ED |  |


| ESI | Engineering Systems - Industrial |
| :---: | :---: |
| ESL | English as a Second Language |
| EST | Electronic Specialty Technology |
| ETC | Engineering Tech: Civil |
| ETG | Engineering Tech: General |
| ETI | Engineering Tech: Industrial |
| ETM | Engineering Tech: Mechanical |
| EUH | European History |
| EVI | Education: Visually Impaired - Blind |
| EVS | Environmental Science |
| EVT | Education: Vocational Technical |
| EXP | Experimental Psychology |
| FIL | Film |
| FIN | Finance |
| FLE | Foreign Language Education |
| FOL | Foreign and Biblical Languages |
| FOT | Foreign \& Biblical Languages in Translation |
| FRE | French Language |
| FRW | French Literature (Writings) |
| FSS | Food Service Systems |
| GEA | Geography: Regional Areas |
| GEB | General Business |
| GEO | Geography |
| GER | German Language |
| GEW | German Literature (Writings) |
| GLY | Geology |
| HBR | Modern Hebrew Language |
| HBT | Hebrew Language Translation |


| HFT | Hotel and Restaurant |
| :---: | :---: |
| HLP | Health Education |
| HMW | Modern Hebrew Literature (Writings) |
| HSA | Health Services Administration |
| HSC | Health Science |
| HUM | Humanities |
| HUN | Human Nutrition |
| IDH | Interdisciplinary Honors |
| IDS | Interdisciplinary Studies |
| INP | Industrial \& Applied Psychology |
| INR | International Relations |
| ISM | Information Systems Management |
| ISS | Interdisciplinary Social Sciences |
| ITA | Italian Language |
| ITW | Italian Literature (Writings) |
| JOU | Journalism |
| JPN | Japanese |
| JST | Judaic Studies |
| LAE | Language Arts \& English Education |
| LAH | Latin American History |
| LAT | Latin |
| LEI | Leisure |
| LIN | Linguistics |
| LIS | Library Science |
| LIT | Literature |
| MAA | Mathematics - Analysis |
| MAC | Mathematics - Calculus \& Precalculus |
| MAD | Mathematics - Discrete |


| MAE | Mathematics Education |
| :---: | :---: |
| MAN | Management |
| MAP | Mathematics - Applied |
| MAR | Marketing |
| MAS | Mathematics: Algebraic Structures |
| MAT | Mathematics |
| MCB | Microbiology |
| MET | Meteorology |
| MGF | Mathematics: General \& Finite |
| MHF | Mathematics: History \& Foundations |
| MIS | Military Science |
| MLS | Medical Laboratory Science |
| MMC | Mass Media Communication |
| MRE | Medical Records |
| MTG | Mathematics: Topology \& Geometry |
| MUC | Music: Composition |
| MUE | Music Education |
| MUG | Music Conducting |
| MUH | Music: History/Musicology |
| MUH | Music: Music Literature |
| MUN | Music: Music Ensembles |
| MUS | Music |
| MUT | Music: Theory |
| MVB | Music: Applied - Brasses |
| MVK | Music: Applied - Keyboard |
| MVO | Music: Applied - Other Instruments |
| MVP | Music: Applied - Percussion |
| MVS | Music: Applied - Strings |


| MVV | Music: Applied - Voice |
| :--- | :--- |
| MVW | Music: Applied - Woodwinds |
| NGR | Nursing - Graduate |
| NUR | Nursing |
| NUU | Nursing Universals |
| OCE | Oceanography |
| OST | Office Systems Technology |
| PAD | Public Administration |
| PCB | Process Cell Biology |
| PCO | Psychology for Counseling |
| PEL | Physical Education Acts (GEN) - Object Centrd., Land |
| PEM | Physical Education Acts (GEN) - Perform Centrd., Land |
| PEN | Physical Education Acts (GEN) - Water, Snow, Ice |
| PEO | Physical Education Acts (PROFNL) - Object Centrd., Land |
| PEP | Physical Education Acts (PROFNL) - Perf. Centrd. Land |
| PEQ | Physical Education Acts (PROFNL) - Water, Snow, Ice |
| PET | Physical Education Theory |
| PGY | Photography |
| PHH | Philosophy, History of |
| PHI | Philosophy |
| PHM | Philosophy of Man \& Society |
| PHS | Physics - Specialized |
| PHT | Physical Therapy |
| PHY | Physics |
| PHZ | Physics Continued |
| PLA | Paralegal/Legal Asst./Legal Admin. |
| POS | Political Science |
| POT | Political Theory |
| PH |  |
| PH |  |
| PH |  |


| PPE | Psychology of Personality |
| :---: | :---: |
| PSB | Psychobiology |
| PSC | Physical Sciences |
| PSY | Psychology |
| PUP | Public Policy |
| PUR | Public Relations |
| RAT | Radiation Therapy |
| RED | Reading Education |
| REE | Real Estate |
| REL | Religion |
| RET | Respiratory Therapy |
| RMI | Risk Management \& Insurance |
| RTE | Radiological Sciences |
| RTV | Radio-Television |
| RUS | Russian Language |
| SCE | Science Education |
| SED | Speech Education |
| SLS | Student Life Skills |
| SOP | Social Psychology |
| SOW | Social Work |
| SPA | Speech Pathology \& Audiology |
| SPC | Speech Communication |
| SPN | Spanish Language |
| SPS | School Psychology |
| SPW | Spanish Literature (Writings) |
| SSE | Social Studies Education |
| STA | Statistics |
| STD | Student Development |


| SUR | Surveying |
| :--- | :--- |
| SYA | Sociology Analysis |
| SYD | Sociology of Demography and Area of Studies |
| SYG | Sociology, General |
| SYO | Sociology - Social Organizations |
| SYP | Sociology - Social Processes |
| TAX | Taxation |
| THE | Theatre |
| TPA | Theatre Production \& Administration |
| TPP | Theatre Performance \& Performance Training |
| TTE | Transportation \& Traffic Engineering |
| URP | Urban and Regional Planning |
| VIC | Visual Communication |
| ZOO | Zoology |

## Courses Numbered 0-999

Depending upon previous background and test scores earned, individual students may be required to complete more than the minimum number of credits required for graduation in their respective programs. Courses numbered less than 1000 (Statewide Common Course Numbers) are sub-collegiate level and may not be counted in meeting degree credit hour requirements for graduation.

## Special Courses

In addition to the regular courses listed in this catalog, special courses may be available. Students should consult their academic advisor for details.

## Special

## Undergraduates Grad ${ }^{\mathbf{1}}$

Directed Independent Studies
Directed Independent Research
Special Topics/Seminars
*Internships, Practicums,

Cooperative Education ${ }^{3} \quad$ 1949, 2949, 3949, 49495949

| Honors Undergraduate Thesis | 3970 |
| :--- | :---: |
| Honors Directed Reading ${ }^{1}$ | 4903 |
| Honors Directed Reading ${ }^{2}$ | 4904 |
| Study Abroad | 5957 |

*These courses may be assigned variable credit. Some may be repeated upon approval.
${ }^{1}$ The Special Graduate Courses are primarily for graduate students, but may be taken by advanced seniors with the consent of their deans.
${ }^{2}$ Enrollment is limited to those students who are fully admitted to the Graduate Program.
${ }^{3}$ Enrollment is limited to those students who are admitted into the Co-op program.

## Dual Usage of Credit Hours

With the exception of $3+2$ programs, courses used to meet the requirements of an undergraduate degree cannot typically also be used to meet the requirements of a graduate program. Students should contact their advisor or college for specific program requirements or additional information.

## UCF Course Description Legend

PR: (Prerequisite) course.

## CR: (Corequisite)

 course.A course in which credit must be earned prior to enrollment in the listed

A course that must be taken concurrently with, or prior to, the listed

## CI: (Consent of the Instructor)

## Hours Code

Each course listed is followed by a code that shows hours of credit and contact hours.

ENV 4121C is offered by the College of Engineering (EN), in the Civil and Environmental Engineering (CEE) Department, carries 3 hours of credit but requires 5 contact hours which consist of 2 hours in class and 3 hours laboratory or field work.

## College/School/Department Indicator

Following the course number for each course listed is an indicator denoting the college, school, and department responsible for the course. The college designators are AS = Arts \& Sciences, BA = Business Administration, ED = Education, ECS = Engineering and Computer Science, HM = Hospitality Management, and HPA = Health and Public Affairs. Department indicators are listed below (by college):

## COLLEGE/

| SCHOOL | DEPARTMENT | ABBREVIATI |
| :--- | :--- | :---: |
| AS | African American Studies | AAS |
| AS | Art | ART |
| AS | Arts \& Sciences | CAS |
| AS | Biology | BIOL |
| AS | Chemistry | CHEM |
| AS | Communication | COMM |
| AS | English | ENG |
| AS | Foreign Languages | LANG |
| AS | Judaic Studies | JUD |
| AS | Liberal Studies | LS |
| AS | Mathematics | MATH |
| AS | Motion Picture Technology | FILM |
| AS | Music | MUSIC |
| AS | OASIS | OASIS |
| AS |  |  |


| AS | Radio/TV | R/TV |
| :---: | :---: | :---: |
| AS | Sociology \& Anthropology | SOC/AN |
| AS | Statistics | STAT |
| AS | Theatre | THEA |
| AS | Women's Studies | WOM |
| BA | Accounting | ACCT |
| BA | Business | BUS |
| BA | Economics | ECON |
| BA | Finance | FIN |
| BA | Management | MAN |
| BA | Marketing | MAR |
| ED | Education | EDU |
| ED | Educational Foundations | EDF |
| ED | Educational Services | EDS |
| ED | Exceptional \& Physical Ed | EPE |
| ED | Instructional Programs | IP |
| ECS | Air Force ROTC-Aerospace | AFROTC |
| ECS | Civil \& Environmental | CEE |
| ECS | Electrical Eng \& Computer Sci | EECS |
| ECS | Engineering | ENGR |
| ECS | Engineering Technology ENT |  |
| ECS | Industrial \& Management | IEMS |
| ECS | Mechanical/Materials/Aerospace | MMAE |
| ECS | Military Science-Army ROTC | AROTC |
| HM | Hospitality Management | HOSP |
| HPA | Communicative Disorders | COMD |
| HPA | Criminal Justice \& Legal Studies | CJLS |
| HPA | Health \& Public Affairs | HPA |


| HPA | Health Information Management | HIM |
| :--- | :--- | :--- |
| HPA | Health Professions | HP |
| HPA | Molecular \& Microbiology | M\&M |
| HPA | Nursing | NURS |
| HPA | Public Administration | PUB |
| HPA | Social Work | SOWK |

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Orlando, Florida
(407) 823-2000

Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

## ACG 2021 BA-ACCT 3(3,0)

Principles of Financial Accounting: PR: Sophomore standing and MAC 1105 or equivalent. Nature of accounting, financial statements, the accounting cycle, assets, current liabilities, long-term debt, and owner's equity; accounting for proprietorships and corporations.

ACG 2021H BA-ACCT 3(3,0)
Honors Principles of Financial Accounting: PR: MAC 1105, participation in the honors program. Same as ACG 2021 with honors level content.

ACG 2023 BA-ACCT 6(6,0)
Principles of Accounting I and II: PR: Junior standing and MAC 1105 or equivalent. Same as 2021, 2071. Credits may not be earned in both ACG 2023 and the ACG 2021, 2071 sequence.

ACG 2071 BA-ACCT 3(3,0)
Principles of Managerial Accounting: PR: ACG 2021 and MAC 1105 or equivalent. The purpose of this class is to thoroughly familiarize the student with the various uses of accounting information for planning and control.

ACG 3101 BA-ACCT 3(3,1)
Intermediate Financial Accounting I: PR: Junior standing and MAC 1105, ECO 2013 and ECO 2023; and ACG 2071 or ACG 2023 or its equivalent with a grade of "C" in the accounting course.

Review of the accounting cycle, financial statement preparation and the framework of accounting theory. An in-depth study of current assets, fixed assets, and intangible assets.

## ACG 3111 BA-ACCT 3(3,0)

Intermediate Financial Accounting II: PR: ACG 3101 with a grade of "C" or better. Accounting theory and practice for current and long-term liabilities, stockholders' equity earning per share, investments, revenue recognition, and selected current topics.

## ACG 3301 BA-ACCT 3(3,0)

Management Accounting: PR: C.I. and Junior standing. To thoroughly familiarize the student with the various uses of accounting information for planning and control.

ACG 3361 BA-ACCT 3(3,0)
Cost Accounting I: PR: Junior standing, MAC 1105, ECO 2013, and ECO 2023, and ACG 2071 with a grade of "C" in ACG 2071, completion of or concurrent enrollment in ACG 3101. Cost concepts, cost of goods manufactured, job order costing, process costing, standard costing, relevant cost analysis, and overhead/joint cost allocations.

## ACG 3501 BA-ACCT 3(3,0)

Financial Accounting for Governmental and Nonprofit Organizations: PR: ACG 3101 with a grade of "C" or better, or C.I. Accounting for governments and other nonprofit organizations, with emphasis on financial reporting issues and problems.

## ACG 4203 BA-ACCT 3(3,0)

Advanced Accounting: PR: Intermediate Financial Accounting II with a grade of "C" or better. Accounting for business combinations and the preparation of consolidated financial statements. Accounting issues related to foreign operations. Also includes a study of current reporting topics.

ACG 4252 BA-FIN 3(3,0)
International Financial and Managerial Accounting: PR: ACG 2021, ACG 2071. An examination of environmental factors affecting international accounting standards and multinational corporate operations. Not open to accounting majors.

## ACG 4401 BA-ACCT 3(3,1)

Accounting Information Systems: PR: ACG 3101 and CGS 2100C, with a grade of "C" or better. An introduction to manual and computer-based accounting information systems.

## ACG 4651 BA-ACCT 3(3,0)

Auditing: PR: ACG 3111 and ACG 4401 with a grade of "C" or better. The standards, practices, and procedures followed in the audit function.

## ACG 5005 BA-ACCT 1.5(1.5,0)

Accounting Foundations: PR: Acceptance to Graduate Study. Accounting and reporting from an
investment and managerial decision making perspective.
ACG 5206 BA-ACCT 3(3,0)
Seminar in Financial Reporting: PR: Acceptance for graduate study and all accounting foundation courses. An in-depth study of advanced financial reports.

ACG 5346 BA-ACCT 3(3,0)
Cost Accounting II: PR: Acceptance for graduate study. ACG 3361, ACG 3111, FIN 3403, ECO 3411. Overhead allocation, capital budgeting and analysis. EOQ analysis, decentralization, and quantitative decision analysis.

ACG 5506 BA-ACCT 3(3,0)
Accounting for Governmental and Non-business Organizations: PR: ACG 3501, ACG 3111 and acceptance for graduate study. Study of problems and methods of applying managerial accounting concepts in a nonprofit environment.

ACG 5625 BA-ACCT 3(3,0)
Auditing and EDP: PR: Acceptance for graduate study, ACG 3111, ACG 4401, and ACG 4651. An examination of auditing procedures followed when a company uses a computer to process financial records.

## ACG 5636 BA-ACCT 3(3,0)

Advanced Auditing Topics: PR: Acceptance for graduate study and ACG 4651, STA 2023. Special topics relative to the standards, practices, and procedures followed in the audit function. Includes statistical sampling, advanced computer systems, advanced applications, and reporting problems.

## ACG 5675 BA-ACCT 3(3,0)

Operational Auditing: PR: Acceptance for graduate study and ACG 3111, ACG 4651. The standards, principles, practices, and procedures followed in the internal audit function.
ADE 4382
ED-IP 3(3,0)

Teaching Adult Learners: Effective teaching techniques including technology, distance instruction, and support systems appropriate to the special needs of adult learners.

## ADV 3000 AS-COMM 3(3,0)

Principles of Advertising: Overview of the field of advertising; purposes, techniques, the role of agencies, advertisers and the media.

## ADV 4101 AS-COMM 3(3,0)

Advertising Copywriting: PR: ADV 3000 or C.I. and Grammar Proficiency Exam. Advertising copywriting teaches the development of creative strategies for advertising and emphasizes writing for various ad media.

Radio-Television Advertising: PR: Majors only, ADV 3000 or C.I. Radio and television advertising sales, including interpretation of rate structures, program audiences, and creative approaches to sponsor needs.
AFA 2102 AS-AAS 3(3,0)
Introductory Perspectives on African American Studies: Multidisciplinary perspectives are used to explore key issues and basic methodologies in African American Studies, featuring presentations by representative faculty from various disciplines.
AFA 3104 AS-AAS 3(3,0)
The African American Experience: PR: AFA 2102. The black experience in the African diaspora; interdisciplinary examination of major texts, theories, practices and philosophic foundations in African American intellectual and cultural history.

AFA 3955 AS-AAS 6(6,0)
Study Abroad in Eastern Caribbean: PR: AFA 4XXX (Caribbean Experience) or Junior standing. Interdisciplinary study abroad program focuses on the arts and humanities of African diasporic cultures in the Eastern Caribbean.

AFH 3100 AS-AAS 3(3,0)
African History to 1870: PR: C.I. Sub-Saharan African institutions and peoples from the earliest time until 1870.

AFH 3200 AS-AAS 3(3,0)
African History Since 1870: PR: C.I. Sub-Saharan African history from 1870 to the present.
AFR 1101 ECS-AFROTC 1(1,2)
The Air Force Today I: History, mission, organization, and doctrine of the United States Air Force and a study of U.S. Strategic Offensive and Defensive Forces.

## AFR 1111 ECS-AFROTC 1(1,2)

The Air Force Today II: A brief review of the Army, Navy, and Marine force. An introduction to special operations and counterinsurgency.

## AFR 2130 ECS-AFROTC 1(1,2)

The Development of Air Power I: A study of the development of air power from experiments by 18th-century balloonists to the achievement of combat air power capabilities during World War II.

## AFR 2131 ECS-AFROTC 1(1,2)

The Development of Air Power II: A study of the development of aerospace capabilities since World War II, highlighting technological advancements and the role of aerospace power in the contemporary world.

AFR 3220 ECS-AFROTC 3(3,2)

Air Force Leadership and Management I: An introductory study of Air Force management fundamentals, communica-tions skills, and basic leadership styles.

AFR 3230 ECS-AFROTC 3(3,2)
Air Force Evaluation and Management II: A concluding study of Air Force management fundamentals, including performance evaluation skills.

## AFR 4201 ECS-AFROTC 3(3,2)

National Security Forces in Contemporary American Society I: Examination of the military and its role in American society. A study of the framework and formation of defense strategy.

## AFR 4210 ECS-AFROTC 3(3,2)

National Security Forces in Contemporary American Society II: PR: An examination of defense implementation and its impact on the decision-making process. A study of the military justice system and its protection of individual rights.

AMH 2010 AS-HIST 3(3,0)
U.S. History: 1492-1877: Survey of U.S. History from 1492-1877.

AMH 2020 AS-HIST 3(3,0)
U.S. History: 1877-Present: PR: AMH 2010 or C.I. Survey of U.S. History from 1877 to the present. May be taken before AMH 2010.

## AMH 2020H AS-HIST 3(3,0)

Honors U.S. History: 1877-Present: PR: AMH 2010 or C.I. Same as AMH 2020 with honors-level content.

AMH 3370 AS-HIST 3(3,0)
American Economic History: PR: AMH 2010 and AMH 2020, or C.I. An introduction to the economic development of the U.S., with emphasis on agriculture, labor, industrialization, transportation, and banking.

AMH 3402 AS-HIST 3(3,0)
History of the South to 1865: PR: AMH 2010 or 2020 or C.I. Development of the southern colonies, beginning sectionalism, the cotton economy, and slavery, Calhoun's constitutional theories, secession, Civil War and its aftermath.

AMH 3403 AS-HIST 3(3,0)
History of the South Since 1865: PR: AMH 2010 and 2020 or C.I. Reconstruction, the "solid South" and the racial dilemma, progressivism for whites only, southern literature, 20th-century economic, political and social changes, and the new Reconstruction.

History of Florida to 1845: PR: AMH 2010 and 2020 or C.I.
AMH 3423 AS-HIST 3(3,0)
Florida History 1845-Present: PR: AMH 2010 and 2020 or C.I.
AMH 3441 AS-HIST 3(3,0)
History of the Frontier: Eastern America: PR: AMH 2010 and 2020 or C.I. The progression of the westward movement from the colonial settlements to the Mississippi, considered as an interpretive approach to American history.

AMH 3442 AS-HIST 3(3,0)
History of the Frontier: Western America: PR: AMH 2010 and 2020 or C.I. The development of the trans-Mississippi West and its impact upon American history.
AMH 3540 AS-HIST 3(3,0)
Military History: A survey of US military history from the European background of the colonial period through the contemporary military experience.

## AMH 3561 AS-HIST $\mathbf{3 ( 3 , 0 )}$

Women in American History I: PR: AMH 2010, AMH 2020. Examines women in indigenous, colonial, African-American slave and free societies, Republican Motherhood, impact of industrialization on women's roles, and emergence of women's rights movement.

## AMH 3562 AS-HIST $\mathbf{3 ( 3 , 0 )}$

Women in American History II: PR: AMH 2010, AMH 2020 or C.I. Examines industrialization, entry of women into higher education and professions, winning of suffrage, changing profile of female wage earner, and rise of modern feminist movement.

## AMH 3571 AS-HIST 3(3,0)

Black American History I: PR: AMH 2010, AMH 2020 or C.I. History of Black Americans from Africa, to slavery, to freedom and its limits in pre-World War I America.

AMH 3572 AS-HIST $\mathbf{3 ( 3 , 0 )}$
Black American History II: PR: AMH 2010, AMH 2020 or C.I. A history of Black America in the Twentieth Century and the continuing struggle for equality in America.

AMH 3586 AS-HIST 3(3,0)
History of the Hispanic Minorities in the U.S.: Course begins with 16th century through the modern period. Special emphasis on Chicanos, Puerto Ricans, and Cubans.

## AMH 3610 AS-HIST 3(3,0)

Sport in America: History of sport from colonial times to present. Emphasis on social and economic development, intercollegiate and professional sport, and changing attitudes toward work, sport, and
play.
AMH 3800 AS-HIST 3(3,0)
Canadian History: Canada since Colonial times and the present, but with emphasis on the period since the British North America Act, 1867.

AMH 4110 AS-HIST 3(3,0)
Colonial America, 1607-1763: PR: AMH 2010 and 2020 or C.I. The voyages of discovery, the origins of the thirteen colonies, and their political, economic, social, and religious life in the 17th and 18th centuries.

AMH 4112 AS-HIST 3(3,0)
The Atlantic World: PR: C.I. The impact and transforming effect of the Atlantic System on the peoples of Western Europe, Western Africa, the Caribbean and the Americas.

AMH 4130 AS-HIST 3(3,0)
The Age of the American Revolution, 1763-1789: PR: AMH 2010 and 2020 or C.I. The American Revolution - its ori-gins, course, and impact upon American society - the Articles of Confederation, the Philadelphia Convention and its work.

## AMH 4140 AS-HIST 3(3,0)

Jeffersonian America: PR: AMH 2010 and 2020 or C.I. The Confederation era, the Federalists, Jeffersonian Democracy, and the War of 1812.

## AMH 4160 AS-HIST 3(3,0)

Jacksonian America: PR: AMH 2010 and 2020 or C.I. The risk of American nationalism, Jacksonian Democracy, the Mexican War, and sectional conflict.

## AMH 4170 AS-HIST $\mathbf{3 ( 3 , 0 )}$

Civil War and Reconstruction: PR: AMH 2010 and 2020 or C.I. Reconstruc-tion, and impact of industrialism.

AMH 4201 AS-HIST 3(3,0)
The Gilded Age and Progressivism: PR: AMH 2010 and 2020 or C.I. The Rise of Industrialized and Urbanized America, The emergence of the New South and the New West, the Populist Movement, overseas expansion, Progressivism.

AMH 4231 AS-HIST 3(3,0)
United States History: 1914-1939: PR: AMH 2010 and 2020 or C.I. The progressive reforms of Woodrow Wilson, World War I, post-war prosperity, the Depression, the New Deal, and the coming of World War II.

United States History: 1939-1960: PR: AMH 2010 and 2020 or C.I. World War II, the Cold War and America in the fifties.

## AMH 4273 AS-HIST 3(3,0)

U. S. History Since 1960: PR: AMH 2010 and AMH 2020 or C. I. Civil rights and Women's Liberation Movements, Vietnam War, Watergate, the decline of liberalism and the rise of conservatism, end of the Cold War.

AMH 4311 AS-HIST 3(3,0)
American Culture I: PR: AMH 2010 and 2020 or C.I. The European Backgrounds: Puritanism; Enlightenment; the Great Awakening; Revolutionary Thought: Romanticism; the Southern Mind and the Yankee Response; Popular Culture and the rise of recreation.

## AMH 4313 AS-HIST 3(3,0)

American Culture II: PR: AMH 2010 and 2020 or C.I. The Darwinian Revolution; revolt of the intellectuals; the media explosion; mass entertainment in mass culture; the loss of community, the nuclear age, and presentism.

## AMH 4510 AS-HIST $\mathbf{3 ( 3 , 0 )}$

Rise of the United States to World Power, 1776-1914: PR: AMH 2010 and 2020 or C.I. The evolution of basic American policies. American expansion. America's major wars, and the emergence of America as a world power.

AMH 4511 AS-HIST 3(3,0)
United States as a Great Power: 1914-Present: PR: AMH 2010 and 2020 or C.I. American foreign policy in World War I, the interwar period, World War II, and the Cold War.

## AMH 5116 AS-HIST 3(3,0)

Colloquium in U.S. Colonial History: PR: Senior Standing or C.I. Reading and discussion of the literature on selected topics in U.S. history.

## AMH 5137 AS-HIST 3(3,0)

Colloquium in U.S. Revolutionary Period: PR: Senior Standing or C.I. Reading and class discussion of the literature on selected topics in the Revolutionary Era, 1763-1789.

AMH 5149 AS-HIST 3(3,0)
Colloquium in Early U.S. History, 1789-1815: PR: Senior standing or C.I. Reading and class discussion of the literature on selected topics of the early national period.

## AMH 5169 AS-HIST 3(3,0)

Colloquium Age of Jackson: PR: Senior Standing or C.I. Intensive reading and class discussion on selected topics of the Jacksonian age.

Colloquium in Civil War and Reconstruction: PR: Senior Standing or C.I. Intensive reading and class discussion on selected topics of the Civil War and Reconstruction era.

## AMH 5219 AS-HIST 3(3,0)

Colloquium in Late 19th Century U.S.: PR: Senior Standing or C.I. Reading and class discussion of the literature on selected topics of late 19th-century U.S.

AMH 5296 AS-HIST 3(3,0)
Colloquium in 20th Century U.S.: PR: Senior Standing or C.I. Reading and class discussion on selected topics in 20th-century U.S.

AMH 5391 AS-HIST 3(3,0)
Colloquium in U.S. Cultural History: PR: Senior Standing or C.I. Students will read and discuss a common or diverse body of the significant literature in the field.

## AMH 5407 AS-HIST 3(3,0)

Colloquium in American South: PR: Senior Standing or C.I. Intensive reading and class discussion on selected topics of Southern history from colonial origins to the present.

## AMH 5446 AS-HIST 3(3,0)

Colloquium in U.S. Frontier: PR: Senior Standing or C.I. Reading and class discussion of the literature on selected topics of frontier history.

## AMH 5515 AS-HIST 3(3,0)

Colloquium in U.S. Diplomatic History: PR: Senior Standing or C.I. A survey of the historical literature of American foreign policy. May be repeated for credit when content is different

## AMH 5566 AS-HIST 3(3,0)

Colloquium: Women in American History: Intensive reading and class discussion on selected topics of Women in American History from colonial time to the present.

AMH 5937 AS-HIST 3(3,0)
AP American History: Participants will enhance their knowledge of weighing evidence and interpretations presented in historical scholarship with respect to the social, cultural, intellectual, economic, and political-diplomatic history of the U.S.

AML 3031 AS-ENG 3(3,0)
American Literature I: PR: ENC 1102. Major American writers from beginning through Whitman.
AML 3051 AS-ENG 3(3,0)

American Literature II: PR: ENC 1102. Major American writers from Twain to present.

Contemporary American Women's Fiction: PR: ENC 1102. Examines how novels and short stories by contemporary U.S. women define identity from diverse woman-centered and feminist perspectives.

## AML 3614 AS-ENG 3(3,0)

Topics in African-American Literature: PR: ENC 1102. Literature by and about African-American culture in the United States. May be repeated for credit.

AML 3615 AS-ENG 3(3,0)
Harlem, Haiti, and Havana: PR: ENC 1102. A comparative approach to African American and Caribbean writers, focusing on literary styles, historical contexts, and themes such as nationalism, popular music, and folk religion.

AML 3640 AS-ENG 3(3,0)
Native American Literature: PR: ENC 1101 and ENC 1102. Native American genres, including traditional oral narratives, ritual and contemporary poetry, autobiography, and the novel.

AML 4101 AS-ENG 3(3,0)
American Novel: PR: ENC 1102. Analysis of major American novelists.
AML 4153 AS-ENG 3(3,0)
American Poetry at Mid-Century: PR: ENC 1102 and LIT 2000. Study of major figures from the "Middle Generation": Berryman, Bishop, Jarrell, Lowell, Plath, Rich, Roethke, and others.

AML 4261 AS-ENG 3(3,0)
Literature of the South: PR: ENC 1102 or C.I. Development of Southern literature from its beginnings in the "Old South" through the post-Civil War and the Southern-Renaissance to the present. Emphasizes reading from Poe, Ransom, Tate, Faulkner, Porter, Warren, O'Connor, Percy, and Styron.

AML 4265 AS-ENG 3(3,0)
Florida Writers: PR: ENC 1102. This course will examine writers who have lived in and written about Florida, such as Hemingway, Rawlings, Hurston, and Stevens.

AML 4321 AS-ENG 3(3,0)
Modern American Literature: PR: ENC 1102. Major writers of modern American literature.
AML 5156 AS-ENG 3(3,0)
Modern American Poetry: Study of trends, modes, major figures (Eliot, Pound, H.D. Lawrence, Stevens, Hart, Crane, Moore, W.C. Williams, etc.) within the Modernist movement in American poetry.

Problems in Maya Studies: PR: ANG 5168 or C.I. In-depth study of current methodological,
theoretical, and/or topical problems in Maya Studies.
ANG 5167 AS-SOC/AN 3(3,0)
Maya Hieroglyphs: PR: ANG 5168 or CI. The study of Maya writing, the translation of Maya hieroglyphs, and the significance of translations to reconstructions of ancient Maya culture.

ANG 5168 AS-SOC/AN 3(3,0)
The Ancient Maya: PR: Batchler's Degree or C.I. Overview of the archaeology of the ancient Maya of Mexico, Belize, Guatemala, and upper Mexico

ANG 5228 AS-SOC/AN 3(3,0)
Maya Iconography: PR: ANG 5168 or CI. Study and interpretation of ancient Maya iconoagraphy as reflected in art, artifacts, and constructed features.

ANG 5324 AS-SOC/AN 3(3,0)
Contemporary Maya: PR: Bachelor's degree or C.I. Overview of the cultures and peoples comprising the contemporary Maya of Central America

## ANT 2000 AS-SOC/AN 3(3,0)

General Anthropology: An introductory survey of the four major subfields of anthropology: Social Anthropology, Physical Anthropology, Linguistics, and Archaeology.

ANT 2000H AS-SOC/AN 3(3,0)
General Anthropology Honors: Extensive honors work in the field of anthropology. Expectations, requirements, and standards are greater than for standard General Anthropology.

ANT 2100 AS-SOC/AN 3(3,0)
Archaeology and the Rise of Human Culture: The evolution of human society from foraging and hunting groups to the earliest cities and states.

ANT 2410 AS-SOC/AN 3(3,0)
Cultural Anthropology (Anthropology II): An introduction to human diversity as exemplified among various cultures and ethnic groups.

ANT 2511 AS-SOC/AN 3(3,0)
The Human Species: Human biological variation in an evolutionary perspective.
ANT 2511H AS-SOC/AN 3(3,0)
Honors The Human Species: PR: Admission to University Honors Program. Human biological variation in an evolutionary perspective.

## ANT 3115 AS-SOC/AN 3(3,0)

Archaeological Method and Theory: A survey of archaeological field and labor-atory techniques,
including the interpre-tation of written archaeological reports.
ANT 3142 AS-SOC/AN 3(3,0)
Old World Prehistory: A comparative study of social evolution in Africa, Europe, and Asia from the earliest humans to the beginnings of recorded history.

ANT 3145 AS-SOC/AN 3(3,0)
Archaeology of Complex Societies: Theoretical perspectives on ancient hierarchies of power.
ANT 3158 AS-SOC/AN 3(3,0)
Florida Archaeology: PR: ANT 2000 or C.I. Florida prehistory from Paleo-Indian to European contact including archaeological periods, cultural areas, sites, and artifacts.

ANT 3163 AS-SOC/AN 3(3,0)
Mesoamerican Archaeology: An introduction to the prehistory of Mexico. Guatemala and upper Central America from earliest times through the Spanish conquest.

ANT 3164 AS-SOC/AN 3(3,0)
Ancient Incas: PR: ANT 2000 or SYG 2000 or C.I. The ancient Inca civilization, including examination of pre-Inca cul-tures and modern Andeans. Uses archaeological, ethnohistorical, historical, and contemporary anthropological sources.

ANT 3168 AS-SOC/AN 3(3,0)
Maya Archaeology: An examination of the Prehistoric Maya culture focusing on both the archaeology and current issues in the field.

ANT 3184 AS-SOC/AN 3(3,0)
Mortuary Archaeology: PR: ANT 2000. Archaeological interpretations of death; basic data collection, skeletal analysis, and comparative study of mortuary ritual - both ancient and modern.

ANT 3212 AS-SOC/AN 3(3,0)
Peoples of the World: A comparative study of religion, family, politics, philoso-phy, and other elements of socio-cultural organization of pre-literate societies.

ANT 3241 AS-SOC/AN 3(3,0)
Magic, Ritual, and Belief: Patterns in religious behavior in various societies, with primary emphasis on myth, rite, taboo, and festival social phenomena.

ANT 3245 AS-SOC/AN 3(3,0)
Native American Religions: PR: ANT 2000 or C.I. The religious beliefs of native New World peoples.

ANT 3262 AS-SOC/AN 3(3,0)

Rural Society: An introduction to rural society in the U.S. and abroad. Problems of third world development in the rural sector.

## ANT 3273 AS-SOC/AN 3(3,0)

Law and Culture: An introduction to law as an organizing force in society, including a study of primitive forms of law and social control.

ANT 3302 AS-SOC/AN 3(3,0)
Sex, Gender and Culture: The tradition-al and changing roles of women and men viewed in a cross-cultural perspective.

ANT 3311 AS-SOC/AN 3(3,0)
Indians of the Southeastern United States: A study of the social and cultural history of the Indians of the Southeast.

ANT 3312 AS-SOC/AN 3(3,0)
Ethnology of North American Indians: A survey of the aboriginal cultures of North America, with emphasis on the pre-contact cultural condition.

ANT 3313 AS-SOC/AN 3(3,0)
Indians of North America High Plains: A study of the social and cultural history of the Indians of the North American High Plains.

ANT 3314 AS-SOC/AN 3(3,0)
Indians of the Northeast Woodlands: PR: ANT 2003 or other lower-level social science course. The prehistory, history and culture of Native Americans of the North American Northeast

ANT 3318 AS-SOC/AN 3(3,0)
Indians of the Northwest Coast: PR: ANT 2003 or other lower-level social science course. The prehistory, history and culture of Native Americans of the Northwest Coast of North America.
ANT 3319 AS-SOC/AN 3(3,0)
Anthropology of Diaspora: PR: ANT 2000 or C.I. Comparative study of socio-cultural constructions of race and the pro-cesses of acculturation and resistance in African Diasporas of the New and Old Worlds.

ANT 3332 AS-SOC/AN 3(3,0)
People and Cultures of Latin America: An overview of the history and society of the peoples of Latin America, emphasizing patterns of subsistence and social organization.

ANT 3340 AS-SOC/AN 3(3,0)
Caribbean Cultures: PR: ANT 2000 or C.I. Comparative study of peoples and cultures of the Anglophone, Francophone and Hispanophone Caribbean.

ANT 3363 AS-SOC/AN (3,0)
Anthropology of Japan: An examination of Japanese culture and its contemporary behavioral and organizational patterns by drawing upon archaeology, cultural history, linguistics, cultural anthropology, and social organization.

ANT 3541 AS-SOC/AN 3(3,0)
Biobehavioral Anthropology: An introduction to the study of human behavior in terms of mutual interaction between human biology and cultural environments.

ANT 3550 AS-SOC/AN 3(3,0)
Primatology: PR: ANT 2511 or C.I. Study of species from the Order Primates, including their morphology, ecology, behavior, and geographic distribution.

ANT 3640 AS-SOC/AN 3(3,0)
Language and Culture: PR: Sophomore standing. The study of language in a non-western setting; language and behavior; language and perception.

## ANT 4034 AS-SOC/AN 3(3,0)

History of Anthropological Thought: The exploration of the intellectual foundations of modern anthropology.

## ANT 4153 AS-SOC/AN 3(3,0)

North American Archaeology: PR: any lower level social science course. The cultural development of Native North Americans from prehistoric times to the period of the first European contact.

## ANT $4180 \quad$ AS-SOC/AN 3(1,4)

Seminar in Laboratory Analysis: The processing of archaeological finds from excavation through publication.

ANT 4308 AS-SOC/AN 3(3,0)
Gender Issues in Latin America: PR: Completion of a lower-level social science course or its equivalent. Issues of gender in Latin America through an anthropological approach, both theoretical and practical, with special attention to women's lives.

ANT 4462 AS-SOC/AN 3(3,0)
Medical Anthropology: PR: ANT 2000 or C.I. The field of medical anthropology.
Topics will include theories, methods, and applications.
ANT 4521C AS-SOC/AN 5(3,3)
Forensic Anthropology: PR: ANT 2511 or C.I. The study of human skeletal remains in relation to a legal context.

Human Osteology: PR: ANT 2511. The scientific study of the human skeleton and the methodology and techniques involved in the anthropological assessment of skeletal remains.

ANT 4586 AS-SOC/AN 3(3,0)
Human Origins: PR: ANT 2511. The fossil evidence for human evolution from Miocene hominoids through the australo-pithecines and the earliest members of the genus Homo.

ANT 4824 AS-SOC/AN 9(9,0)
Advanced Archaeological Fieldwork: PR: Students admitted only with permission of instructor. Supervised archaeological fieldwork.

## ANT 5166 AS-SOC/AN 3(3,0)

Problems in Maya Studies: PR: ANT 5168 The Ancient Maya or CI. In-depth study of current methodological, theoretical, and/or topical problems in Maya studies. May be repeated for credit.

ANT 5168 AS-SOC/AN 3(3,0)
The Ancient Maya: PR: B.A. or CI. Overview of the archaeology of the ancient May;a of Mexico, Belize, Guatemala, and upper Central American.

ANT 5479 AS-SOC/AN 3(3,0)
Comparative Cultural Analysis: The dynamics of cultural processes in a multi-ethnic setting
APA 3471 BA-ACCT 3(3,0)
Accounting for Engineers: General Accounting principles and practice, cost accounting, budgeting, and control techni-ques. Not usable for BSBA degree credit.

## APB 4651 HPA-HP 2(2,0)

Medical Pharmacology I: Drugs in pulmonary diseases; effects on nervous system, and neuroeffectors, depressants \& stimulants; influence on metabolism and endocrines. (MDRV) Bronchodilators, mycolytics, etc.

## APB 4652 HPA-HP 2(2,0)

Medical Pharmacology II: PR: APB 4651 or C.I. Drugs used in cardiovascular disorders. Includes inotropic, chrono-tropic agents, beta blocker drugs, calcium channel antagonists.

## ARA 1120 AS-LANG $\mathbf{4}(4,1)$

Elementary Arabic Language and Civilization I: Introduces the student to Arabic language skills. Open only to stu-dents with no experience in the language.

## ARA 1121 AS-LANG 4(4,1)

Elementary Arabic Language and Civilization II: PR: ARA 1120 or C.I. Continuation of ARA

Intermediate Arabic Language and Civilization I: PR: ARA 1121 or C.I. Development of language skills and cultural knowledge at the intermediate level.

ARE 3944 AS-ART 3(2,3)
Community Arts Practicum: A supervised experience for students to facilitate art programming in a variety of community settings.
ARE 4262 AS-ART 3(3,0)
Methods in Art Administration: PR: ARH 3820. Theories and methodologies for designing, implementing and administering art programs for a variety of populations.
ARE 4313 ED-IP 3(2,1)
Art in the Elementary School: Basic principles, purposes, scope and sequence: organization for instruction; evaluation of activities; selected art experiences.

## ARE 4351 ED-IP 3(2,1)

Teaching Art in the Elementary School: PR: EDF 4214 and EDG 4323. Transition from university art studio practices to public school teaching of art. Organizing, designing and analyzing art experiences, activities and classroom environments for the elementary school classroom.

ARE $4352 \quad$ ED-IP $\quad 3(2,1)$
Teaching Art in the Secondary School: PR: ARE 4143, EDF 4214, and EDG 4323. Transition from university art studio practices to High School Teaching of art. Organizing, designing and analyzing art experiences and activities appropriate for junior high and high school children. Examination of teaching methodology relative to the high school and junior high school settings.

ARE 4356 ED-IP 3(3,1)
Teaching Art Appreciation \& Criticism in the Classroom: PR: ARH 2050 and ARH 2051. An examination of art appreciation programs and concepts toward planning curriculum for the study of art history, popular art, art criticism, and aesthetics for specific educational settings.

ARE 4945 AS-ART 12(0,12)
Community Arts Internship: An on-site in-depth experience for community arts majors with a concentration in administration, education, or therapeutic experience.

ARE 5251 ED-IP 3(2,1)
Art for Exceptionalities: Concepts, principles, and methods of integrating art processes into the education of the physically, emotionally, and mentally handicapped.

ARE 5255 ED-IP $3(2,1)$

Arts in Recreation: Art activities and experiences appropriate for use in playground, leisure services, occupational orientation and other recreational areas.

ARE 5454 ED-IP 3(3,0)
Studio Experiences in Art Education: PR: Gradate admission or C.I. Materials available for instruction in public schools will be explored in depth in relation to their appropriateness and productive qualities. May be repeated for credit.

ARE 5648 ED-IP 3(3,0)
Contemporary Visual Arts Education: PR: ARE 4443 or C.I. Continued study of current programs and innovations in public school Visual Arts Programs.

ARH 2005 AS-ART 3(3,0)
Survey of Non-Western Art: An interdisciplinary examination of the history of major visual arts in various non-Western cultures.

ARH 2050 AS-ART 3(3,0)
The History of Art I: Painting, sculpture and architecture from the Prehistoric Era through the Renaissance period.

ARH 2050H AS-ART 3(3,0)
The History of Art I: Survey Art History to be offered for the Honors Program. May be repeated for credit.

ARH 2051 AS-ART 3(3,0)
The History of Art II: Painting, sculpture and architecture from the Baroque through the 20th century.

## ARH 2051H AS-ART 3(3,0)

Honors History of Art II: Same as ARH 2051 with honors-level content.
ARH 3456 AS-ART 3(3,0)
Art in the Last 25 Years: PR: ARH 2050 and ARH 2051 or C.I. A seminar for upper-level art students to examine current trends in the visual arts.

ARH 3520 AS-ART 3(3,0)
African Art: Teach the continuatives between African, Afro-Caribbean and Afro-American Arts.
ARH 3522H AS-ART 3(3,0)

Honors: African American Arts Seminar: An exploration of traditional, academic, and contemporary urban African American visual arts.
ARH 3683
AS-ART
3(3,0)

Southern Folk Arts: PR: Junior Standing or C.I. This course will explore contemporary issues related to folk art including definition, collecting, marketing, art criticism, tradition, innovation, and its relationship to the so-called fine arts and popular arts.

## ARH 3710 AS-ART 3(3,0)

History of Photography I: History of still photography from its earliest
inception to 1900. The content of this course is designed for art majors.


#### Abstract

ARH 3711 AS-ART 3(3,0)


History of Photography II: History of still photography from the early 20th century to the present. The content of this course is designed for art majors.

ARH 3720 AS-ART 3(3,0)
History of Prints: PR: ARH 2050 and ARH 2051 or C.I. History of printmaking in the Western world, surveying works by the "great printmakers."

## ARH 3728 AS-ART 3(3,0)

American Art: PR: ARH 2050 and ARH 2051 or C.I. Surveys American Art to 1900. Leading artists are identified and representative examples of their work are discussed within the context of major themes, patterns, sources.

ARH 3802 AS-ART 3(3,0)
Happenings and Conceptual Art: PR: Junior Standing or C.I. Aesthetic and social significance of "Total Art" in its attempt to break down customary distinctions between life and art.

## ARH 3820 AS-ART 3(3,0)

Visual Arts Administration Vitas: Grant applications; Personnel; copyright laws; museum practices, etc.

ARH 4170 AS-ART 3(3,0)
Greek \& Roman Art: PR: ARH 2050 or HUM 3431 and ENC 1102 or C.I. A study of the art and architecture of the ancient civilizations of the Mediterranean, comprising Greece, Eturia, and Rome.
ARH 4310 AS-ART 3(3,0)

Italian Renaissance Art: PR: ARH 2050 and ARH 2051 or C.I. A survey of Italian Art and Architecture from 1300 to 1500.

ARH 4350 AS-ART 3(3,0)
Baroque Art: PR: ARH 2050 and ARH 2051 or C.I. A study of European Art in the 17th and 18th centuries.

19th Century Art: PR: ARH 2050 and ARH 2051. A survey of the trends and developments in art during the 19th century, including the art of America and of Western Europe.

ARH 4450 AS-ART 3(3,0)
20th Century Art: PR: ARH 2050 and ARH 2051 or C.I. A survey of the art from Fauvism, Futurism, Cubism to the art of the present.

ARH 4458 AS-ART 3(3,0)
Women and Art in the 20th Century America: A course on women artists, feminist aesthetics, and women's artistic cultures, focusing on 20th century America.

ARH 4545 AS-ART 3(3,0)
Art of India: Art and architecture of
India from prehistoric times through the Gupta, Rajput, and Muslim periods.
ARH 4655 AS-ART 3(3,0)
Meso American Art: A survey of the art of Mexico and Central America, from the Pre-Colombia, through the Spanish Colonial, to the 20th century.

ARH 4800 AS-ART 3(3,0)
Theory and Criticism of the Visual Arts: PR: ARH 2050 and ARH 2051 or C.I. Criteria of criticism, analysis of works, elements of psychology and sociology of art. Developments in the art of the 20th century.

## ARH 4892 AS-ART 3(3,0)

Women in Art: PR: ARH 2050 and ARH 2051 or C.I. A survey of women artists from ancient times to the present as well as a study of the role Aesthetics and Ideology have played in determining representations of women in art.


#### Abstract

ARH 5451 AS-ART 3(3,0) Artistic World Views: PR: Post-Baccalaureate status, 9 hours of art courses, or C.I. Art from individuals and cultural perspectives of varying ethnic, religious, occupational, regional, and generational groups.


ARH 5478 AS-ART 3(3,0)
Contemporary Women Artists: PR: 6 credits of art courses or C.I. An in-depth study on contemporary women artists from a feminist perspective.

## ARH 5933 AS-ART 3(3,0)

Seminar in African and African-American Arts: PR: ARH 3520. Research on questions regarding continuities between African and African-American (including Latin-American) arts. Themes include signs and scripts, charms, and textiles.

ARH 5934 AS-ART 3(3,0)
Orlando Art Exhibition: PR: Graduate Standing or C.I. A partnership class which focuses on the study of an Art Exhibition in an Orlando art or history museum. May be repeated for credit.

ART 2110C AS-ART 3(2,4)
Beginning Ceramics: PR: ART 2201 or C.I. Basic concepts of ceramic design, experience in processes of forming, decorating, glazing, and firing pottery.

ART 2133C AS-ART 3(3,0)
Fibers \& Fabrics: Design and production training in surface design, floor loom weaving and fiber sculpture.

ART 2198C ED-IP 3(2,3)
Metals, Woods, Leathers and Stones: Processes and techniques of production.
ART 2201C AS-ART 3(2,4)
Design Fundamentals I: PR: ART 2820. Materials, processes, form. Emphasis on two-dimensional design problems,
including problems in black and white and basic color theory.
ART 2203C AS-ART 3(2,4)
Design Fundamentals II: PR: ART 2201C and ART 2820 or C.I. Continu-ation of color theory and basic three-dimensional design using the various sculptural media.

ART 2220C AS-ART 3(2,4)
Graphic Design I: PR: ART 2201C. Basic principles, concepts, and techniques in graphic design and art for visual publication.

ART 2230C AS-ART 3(2,4)
Design in Advertising: PR: ART 2201C. Principles and techniques. Not open to art majors specializing in graphic design. Intended for visual arts education majors and general university elective.
ART 2300C AS-ART 3(2,4)

Drawing Fundamentals I: PR: ART 2820 or C.I. Drawing as a means of formal organization. Introduction to problems in drawing methods and media. Emphasis on description techniques.
ART 2301C AS-ART $\mathbf{3}(2,4)$

Drawing Fundamentals II: PR: ART 2300C and ART 2820 or C.I. Continuation of ART 2300C.
ART 2394 AS-ART 3(3,0)

Drawing: Computer as a Medium: Object drawing, using the computer and drawing stylus as a
medium.
ART 2400C AS-ART 3(2,4)
Beginning Printmaking: Basic elements and techniques of printmaking covered. Relief, intaglio, and lithography. Assignments include practical application of printmaking as drawing tool.

## ART 2510C AS-ART 3(2,4)

Beginning Painting: PR: ART 2300C, ART 2201C, or C.I. Methods and materials of the painter. Introduction to the problems in painting.

ART 2600C AS-ART 3(2,4)
Introduction to Computer Graphics: PR: ART 2820 or C.I. The principles underlying the generation and display of graphical pictures by computer. Topics include graphical software packages and graphics systems.

## ART 2701C AS-ART 3(2,4)

Sculpture: PR: Three semester hours in three-dimensional work, ART 2201C, ART 2203C, ART 2300C, ART 2301C.

## ART 2820 AS-ART 3(3,0)

Art as Interface: An overview of art de-partment specializations, and selected his-torical and theoretical information influ-encing the art curriculum. Examination of aesthetic characteristics shared by the various disciplines and how knowledge of these data is used by the profession to share information with the community.

## ART 3111C AS-ART 3(2,4)

Intermediate Ceramics: PR: ART 2201C, ART 2203C, ART 2300C and ART 2301C. Continuation of ceramic processes.

## ART 3161 AS-ART 3(3,0)

Mixed Media: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C. Concepts and techniques involving the creation of art objects by integrating painting, sculpture, drawing, design, and art history.

ART 3232C AS-ART 3(2,4)
Intermediate Graphic Design II: PR: Acceptance in Graphic Design Concentration, ART 2201C, ART 2203C, ART 2300C, ART 2301C. Further development of studio techniques and problems in graphic design with emphasis on digital prepress.

ART 3239C AS-ART 3(2,4)
Intermediate Graphic Design I: PR: Sophomore level portfolio review and acceptance in Graphic Design Concentration and ART 2201C, ART 2203C, ART 2300C, ART 2301C. Methods related to studio projects in graphic design.

Illustration: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C. Pictorial and representational illustration using various media and techniques.

ART 3281C AS-ART 3(2,4)
Type \& Design: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C. A survey of type, calligraphy and letter forms and their appropriate use as subject matter for graphic design and publication.

## ART 3330C AS-ART 3(2,4)

Intermediate Drawing: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C. Intermediate problems in draw-ing, with emphasis on the human form.

## ART 3400C AS-ART 3(2,4)

Intermediate Printmaking: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C. Intermediate overview of printmaking process.

ART 3520C AS-ART $\mathbf{3}(2,4)$
Intermediate Painting: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C. Reinforces and extends methods and materials content of ART 2510C, and deals with issues of figurative painting.

## ART 3610C AS-ART 3(2,4)

Computer Graphic Design: PR: Acceptance in Graphic Design Concentration, ART 3239C, ART 2201C, ART 2203C, ART 2300C, ART 2301C. Problems involving the use of computer graphic systems for visual publication.
ART 3680 AS-ART 3(3,0)

Animation Production Methods: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, C.I. The development of a computer animation piece. All aspects of production will be covered. May be repeated for credit.

## ART 3833C AS-ART 3(4,2)

Processes and Ideas in Art: PR: Junior Standing. This course emphasizes the development of individual creativity and the generation of new insights concerning artistic expression. These "formative activities" must be manifested by students in the form of small sculptures and/or other forms of creativity.

## ART 4107C AS-ART 3(2,4)

Kiln Design and Building: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 3111C and ART 4114C. The design and construction of kilns, use of refractory materials, and the theory of efficient fuel combustion.

Advanced Ceramics: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 3111C. Advanced problems in the ceramic process. May be repeated for credit.
ART 4121C AS-ART 3(2,4)

Ceramic Raw Material: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 3111C. An in-depth understanding of the singular and diverse properties of clay and glaze materials.
ART 4124C AS-ART $\mathbf{3}(2,4)$

Ceramic Handbuilding II: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 2110. Technical skills in manipulating form, function, volume, color and surface texture.

## ART 4138C AS-ART 3(2,4)

Advanced Fiber \& Fabrics: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 2133C. Textile design and production, including non-loom weaving processes. May be repeated for credit.

## ART 4226C AS-ART 3(3,3)

Post Production for Animators: PR: FIL 3287C. Concepts and tools for finishing computer and traditional animations on film and video. Emphasis on compositing tools to combine elements in a finished animation.

## ART 4235C AS-ART 3(2,4)

Advanced Graphic Design: PR: Acceptance in Graphic Design Concentration, ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 3232C. Practical studio problems, with emphasis on organization of visual design elements.

## ART 4237C AS-ART 3(2,4)

Special Problems in Graphic Design: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 4235C. Advanced problems in visual design and reproduction. May be repeated for credit.

ART 4260C AS-ART $3(2,4)$
Advanced Illustration: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 3253C. Illustration problems involving the use of advanced level techniques in illustration media. May be repeated for credit.

ART 4320C AS-ART 3(2,4)
Advanced Drawing: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 3330C. May be repeated for credit.
ART 4402C AS-ART 3(2,4)

Advanced Printmaking: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 3400C. May be repeated for credit.

Advanced Computer Graphic Design: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, Acceptance in Graphic Design Concentration, ART 3232C, ART 3610C. Problems involving the use of advanced computer graphic systems for electronic publication.

## ART 4530C AS-ART 3(2,4)

Advanced Painting: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 3520C. Advanced problems in painting. May be repeated for credit.

## ART 4703C AS-ART 3(2,4)

Advanced Sculpture: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, ART 2701C. May be repeated for credit.

ART 4935C AS-ART 3(3,1)
BFA Exhibit/Seminar: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, must complete Studio course for BFA. This course is designed to prepare B.F.A. students for B.F.A. Exhibition
ART 4945 AS-ART 6(0,6)
C.R.E.A.T. Project: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, FIL 4288C. A practicum in which spec-ialists from Art, Film, Computer Science and other humanities design and develop a project in partnership with industry.

ART 5109C AS-ART 3(2,1)
Multi-Cultural Crafts Design: The content of this course will include an appreciation for and the production of Western and Non-Western art forms.

## ASH 3222 AS-HIST 3(3,0)

Islam and Its Empires: PR: Junior standing or C.I. History of the Middle East and North Africa from the birth of Islam to the 16th century.

## ASH 3223 AS-HIST $\mathbf{3 ( 3 , 0 )}$

The Modern Middle East: PR: Junior standing or C.I. History of the Middle East and North Africa from the 16th century to the present.

ASH 4304 AS-HIST 3(3,0)
Women in China: PR: AMH 2010 and AMH 2020, or EUH 2000 and EUH 2001, or WOH 2012 and WOH 2022. Historical changes and continuities in experiences of Chinese women during the traditional period, the modern era and contemporary times.

ASH 4404 AS-HIST $\mathbf{3}(3,0)$
China in 19th and 20th Centuries: PR: EUH 2000 and 2001 or C.I. The Mongols in China; coming of the Europeans; social structure; Communist movement; Japanese aggression.

## ASH 4442 AS-HIST 3(3,0)

Modern Japan, 19th and 20th Centuries: PR: EUH 2000 and 2001 or C.I. A survey of the Tokugawa Shogun-ate; Western contact in the 19th century; World War I; Japanese militarism; World War II; and U.S. occupation.

## ASH 5408 AS-HIST 3(3,0)

Colloquium in Modern China: PR: Graduate standing, Senior status, or C.I. Course explores works of scholarship in modern China including the rise of Communism, Chinese women and Sino-American relations.

## AST 2002 AS-PHYS 3(3,0)

Astronomy: Descriptive survey of solar system, galaxies and universe; physical properties of stars, H-R diagram, stellar evolution, black holes, neutron stars.

## AST 2002H AS-PHYS 3(3,0)

Honors Astronomy: Same as AST 2002 with Honors level content.
AST 2002L AS-PHYS $\mathbf{1}(0,3)$
Astronomy Lab: CR: AST 2002. Laboratory experiments covering selected topics in astronomy related to AST 2002.

AST 2022 AS-PHYS 3(3,0)
Observational Astronomy: PR: AST 2002, PHY 2053C. Locating objects in the sky, use of telescopes and supporting astronomical equipment, and data collection and analysis.

AST 3110 AS-PHYS 3(3,0)
Solar System Astronomy: PR: AST 2002, PHY 2053. Interdisciplinary approach to the dynamics of the Solar System through application of Physics, Atmospheric Science, Chemistry and Geology.

## AST 3211 AS-PHYS 3(3,0)

Stellar Astrophysics: PR: AST 2002, PHY 2053. The physics and dynamics of stars, including star formation and stellar evolution.

## AST 4501 AS-PHYS 3(3,0)

Celestial Mechanics: PR: PHY 2048, AST 2002. The orbital motions of celestial bodies, including orbit calculation, perturbation theory, and Hohmann transfer orbits.

## AVM 2510 UCF-HOSP 3(3,0)

Airline Management: PR: Junior Standing. The trends, operation, practices, and procedures of the airline industry. Special emphasis on ticketing, scheduling, marketing, and terminal management.

Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Finding a Course in this List

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## Availability of Courses

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## BCH 4053 AS-CHEM 3(3,0)

Biochemistry I: PR: CHM 2211. A consideration of proteins, carbohydrates, nucleic acids, enzymes and their effect on biochemical systems, and inter-relationship of intermediary metabolism.

## BCH 4054 AS-CHEM 3(3,0)

Biochemistry II: PR: BCH 4053. Continuation of BCH 4053.
BCH 4103L AS-CHEM 2(0,6)
Biochemical Methods: PR: BCH 4053. A laboratory course stressing the application of the chemical arts to the separation, identification, and quantification of materials of biological significance.

BOT 3152C AS-BIOL 3(1,4)
Local Flora: PR: BSC 2010C and BSC 2011C, or C.I. Recognition and identification of Florida higher plants, especially those common to central Florida, stressing environmental and ethnobotanical significance. Weekend field trips may be required.

BOT 3800 AS-BIOL 3(3,0)
Ethnobotany: PR: C.I. Historical and modern uses of plants economically important in various cultures. Designed for majors and non-majors.

Plants and the Urban Environment: PR: Junior standing or C.I. The selection, placement, propagation and care of ornamental plants in residential and industrial areas. For non-majors only.

## BOT 4156C AS-BIOL 4(2,6)

Florida Wildflowers: PR: BSC 2010, BSC 2011C, BOT 4303C, or C.I. The biology of wildflowers of Florida, their identification, taxonomy, distribution, flowering times, and roles played in the environment and welfare of man.

BOT 4223C AS-BIOL 4(3,3)
Plant Anatomy: PR: BSC 2010C and BSC 2011C, or C.I. A study of develop-ment, structure and function of the princi-pal organs and tissue of vascular plants.

BOT 4303C AS-BIOL 5(3,6)
Plant Kingdom: PR: BSC 2010C and BSC 2011C, or C.I. A survey of the plant kingdom utilizing comparative morphology, structure and functions to demonstrate relationships among extant and extinct forms.

BOT 4503C AS-BIOL 4(3,1-3)
Plant Physiology: PR: PCB 3023 or C.I. A Study of mechanisms used by plants to cope with the environment.

## BOT 4696C AS-BIOL 4(3,3)

Conservation and Management of Native Plants: PR: BOT 4713C, PCB 3043 and/or BOT 4503C or C.I. Identi-fication, conservation, propagation and management of Florida rare, endangered, indicator or reclamation species.

## BOT 4713C AS-BIOL 5(3,6)

Plant Taxonomy: PR: BSC 2010C and BSC 2011C, or C.I. Systematic classification and identification of vascular plants, with emphasis on the flora of peninsular Florida.

## BOT 5485C AS-BIOL 3(2,3)

Terrestrial Cryptogams: PR: BOT 4303C or C.I. A lecture-laboratory survey course on the biodiversity and classifica-tion of terrestrial-cryptogams (bryo-phytes, ferns, and fern allies) with special emphasis on those found in Florida.

## BOT 5623C AS-BIOL 4(3,3)

Plant Geography and Ecology: PR: PCB 3034 or C.I. The study of the abiotic and biotic processes that control the distribution of terrestrial flora at local, landscape, and global scales.

BSC 1005 AS-BIOL 3(3,0)
Biological Principles: A study of various biological factors which affect the health and survival of man in modern society. Designed for non-majors.

Biological Principles-Honors: PR: Honors. Biological factors that affect dependence on the environment; the role of human population preserving ecological integrity.

BSC 1005L AS-BIOL $\mathbf{1}(0,2)$
Biological Principles Laboratory: CR: BSC 1005. The laboratory to accompany BSC 1005.
BSC 1050 AS-BIOL 3(3,0)
Biology and Environment: Biological implications of the interaction among human society, population, and technology in relation to the environment and natural systems. Designed for non-majors.

BSC 1050L AS-BIOL $\mathbf{1 ( 0 , 2 )}$
Biology and Environment Laboratory: CR: BSC 1050. The laboratory to accompany BSC 1050. BSC 2010C AS-BIOL 4(3,2)

General Biology: PR: High school biology or C.I. Basic principles, unifying concepts, and facts of modern biology. Introduction to quantitative biological experimentation. Open only to students whose major requires this specific course.

BSC 2010H AS-BIOL 4(3,3)
General Biology Honors: PR: Eligibility for Honors Program. Basic principles and unifying concepts of modern biology. Introduction to quantitative experiment-ation using intensive, open-ended labs.

BSC 2011C AS-BIOL 4(3,3)
Biological Diversity: PR: BSC 2010C or C.I. Introduction to botany and zoology. Structure, function, and representative groups of plants and animals. Open only to students whose major requires this specific course.

## BSC 3404C HPA-M\&M 4(2,4)

Quantitative Biological Methods: PR: BSC 2010C, MCB 3020C, CHM 2046. A laboratory course which presents modern methods and instrumentation used in quantitative biological experimentation.

## BSC 3404H HPA-M\&M 4(2,4)

Quantitative Biological Methods-Honors: A laboratory course which pre-sents the concepts, modern methods, tech-niques and instrumentation used in quan-titative biological and molecular biologi-cal experimentation.Honors level content.

BSC 4101 AS-BIOL 3(3,0)
History of Biology: PR: BSC 2010C, BSC 2011C and 8 hours in biology or C.I. People and events involved in the development of major biological concepts and disciplines. Suitable for majors and non-majors.

Marine Biology: PR: PCB 3034, PCB 4683C, and STA 2023. The biological, ecological, physical and chemical aspects of the world's oceans.

## BSC 4422L AS-BIOL 1-4(0,3-12)

Biology Laboratory Techniques: PR: PCB 3043, CHM 2210, or C.I. Individual and small group instruction in current laboratory techniques beyond the scope of typical Biology laboratories. May be repeated for credit, up to a maximum of 4 credits total. Graded "s" or "u."

BSC 5408L AS-BIOL 3(0,9)
Advanced Biology Laboratory Techniques: PR: BS degree, C.I. This course will emphasize those biological techniques and resources necessary for students about to begin thesis research. Individual and small group instruction in current laboratory techniques, literature searches, and hands-on practice of techniques will be stressed. May not be repeated for credit.

BSC 5817 AS-BIOL 3(3,0)
Biology for AP Teachers: Participants will perform and evaluate the 12 required labs, analyze the design and grading of the Exam, and develop a representative program.

BTE 4410 ED-IP 4(4,0)
Course Construction in Business Education: PR: EVT 3365 or C.I. An overview and examination of business curriculum and methodology integrated into the vocational frameworks. Planning and preparation of materials, managing the laboratory and involvement in vocational student organizations.

## BUL 3130 BA-ACCT 3(3,0)

Legal and Ethical Environment of Business: PR: Junior standing. Analysis of the law as a dynamic social and political institution in the business environment, including ethical consider-ation. (Not open to Accounting majors).

## BUL 3320 BA-ACCT 3(3,0)

Business Law I: PR: Junior Standing. Introduction to law; a social and political institution in the business environment. Analysis of statutory and common law principles involved in the formation, operation, and termination of recognized business organizations. Analysis of the effects of government regulation on business activity, including anti-trust and securities regulation.

## BUL 3321 BA-ACCT 3(3,0)

Business Law II: PR: BUL 3320. Coverage of the Uniform Commercial Code; the law of commercial transactions, including sales, commercial paper, secured transactions and suretyship, contracts, wills and trusts, and property law.

BUL 4540 BA-ACCT 3(3,0)
Employment Law: PR: MAN 3025, CR: MAN 3301. An examination of current employment law and issues/trends in the legal environment impacting human resource management system design, HRM policy and employee relations.

Legal and Social Environment of Business: PR: Admission to graduate program. Analysis of the legal and ethical environment of business, the effects of legislation and regulation on business activity, and the role of law and ethics in the decision-making process.

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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

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## CAP 4020 ECS-EECS 3(3,0)

Digital Media: PR: COP 3530C or C.I. Information structures, algorithms and interactive tools for creation, compression, storage, indexing and transmission of multimedia (visual images, sound, tactile displays, etc.) Project-oriented.

## CAP 4021 ECS-EECS 3(3,0)

Building Virtual Worlds: PR: COP 3530C or C.I. Design and construction of software for networked interactive learning environments, entertainment and communication systems. Tools for enabling dramatic, artistic and technical creativity. Project oriented.

## CAP 4453 ECS-EECS 3(3,0)

Robot Vision: PR: COP 3530C and MAC 2312, or C.I. Pin hole camera and eye, perspective and orthographic projections, the processing of edges, regions, motion, shading, texture, object; robot arm usage.

## CAP 4630 ECS-EECS 3(3,0)

Artificial Intelligence: PR: COP 3530C. Current methods in Al: knowledge-based systems, representation, inference, planning, natural language. Programming in Lisp or Prolog required.

## CAP 5015 ECS-EECS 3(3,0)

Multimedia Compression on the Internet: PR: seniors and graduate students with interest in internet
technology. Multimedia data; internet technology; entropy; compression methods; lossy compression; vector quantization; transform coding; wavelet video compression; model based compression.

## CAP 5415 ECS-EECS 3(3,0)

Computer Vision: PR: COP 3530C. Image formation, binary vision, region growing and edge detection, shape representation, dynamic scene analysis, texture, stereo and range images, and knowledge representation.

## CAP 5512 ECS-EECS 3(3,0)

Evolutionary Computation: PR: Graduate standing or C.I. This course covers the field of evolutionary computation, focusing on the theory and application of genetic algorithms.

## CAP 5610 ECS-EECS 3(3,0)

Machine Learning: PR: CAP 4630 or C.I. Origin/evaluation of machine intelligence; machine learning concepts and their applications in problem solving, planning and "expert systems;" symbolic role of human and computers.

## CAP 5636 ECS-EECS 3(3,0)

Advanced Artificial Intelligence: PR: CAP 4630. Al theory of knowledge representation, "expert systems," memory organization, problem solving, learning, planning, vision, and natural language.

## CAP 5725 ECS-EECS 3(3,0)

Computer Graphics Systems I: PR: COP 3530C or equivalent. Architecture of graphics processors; display hardware; principles of programming and display software; problems and applications of graphic systems.

## CBH 3003 AS-PSYCH 3(3,0)

Comparative Psychology: PR: PSY 2013. A study of comparative behaviors of lower animals.
CCE 4003 ECS-CEE 3(3,0)
Introduction to the Construction Industry: PR: Civil Engineering with construction option. The construction industry. Topics covered include: project evaluation, project phases, project delivery systems, contracts, estimating and scheduling. Also drawing and specifications.

## CCE 4004 ECS-CEE 3(3,0)

Construction Methods: PR: EGN 3613 and junior standing. Construction project evaluation principles along with construc-tion methods for civil and structural systems. May be repeated for credit.

## CCE 4031 ECS-CEE 3(3,0)

Construction Project Management: PR: EGN 3613. Project management in the construction industry. Project financial evaluation on a life cycle basis. Essentials of project management such as estimating scheduling, contracts, and administration. May be repeated for credit.

CCE 4034 ECS-CEE 3(3,0)
Construction Estimating and Scheduling: PR: CCE 4003. This course covers construction project estimating and bidding and the preparation of construc-tion schedules. This is followed by in-depth coverage of time and const control

## CCE 4402 ECS-CEE 3(3,0)

Construction Equipment and Productivity: PR: CCE 4003, Junior standing. Selection of appropriate equip-ment based on operational parameters. Principles of construction productivity measurement and analysis. Discrete event simulation. May be repeated for credit.

CCE 4813 ECS-CEE 4(4,0)
Mechanical and Electrical Systems for Buildings: PR: CCE 4003 or C.I. Design and construction of mechanical and electrical systems for buildings.

CCJ 3004 HPA-CJ/LS 3(3,0)
Careers in Criminal Justice: PR: CCJ 3024. Introductory course with focus on components of the Criminal Justice process (law enforcement, courts, and corrections) and employment opportun-ities within the criminal Justice system.

CCJ 3014 HPA-CJ/LS 3(3,0)
Crime in America: A survey of crime and criminality in the United States, with emphasis on crime data, its weaknesses, and types of criminal behavior.

CCJ 3024 HPA-CJ/LS 3(3,0)
Criminal Justice System: An examination of the components and of their interdependence in light of their traditional autonomy.

CCJ 3058 HPA-CJ/LS 3(3,0)
Origins of Criminal Justice: PR: CCJ 3024. Study of criminal justice system evolution . Focus on developments contri-buting to the institutions and practices of the American criminal justice system

CCJ 3072 HPA-CJ/LS 3(3,0)
CJ Information Technology and Data Management: PR: CCJ 3024. Designed to familiarize with concepts of databases, uses, and applicability to crime analysis.

CCJ 3123 HPA-CJ/LS 3(3,0)
Crime Prevention: PR: CCJ 3024. An overview and analysis of crime prevention strategies used in the private and public sectors

## CCJ 3204 HPA-CJ/LS 3(3,0)

Criminal Law in Action: Basic concepts of criminal law: elements of major crimes, criminal responsibility, defenses, and parties to crime.

Prosecution and Adjudication: PR: CCJ 3024 or PLA 3013 or C.I. Examination of structures and goals of offices and prosecution and criminal trial courts, and of the processes of charging, adjudicating, and sentencing defendants.

## CCJ 3306 HPA-CJ/LS 3(3,0)

The Corrections and Penology: PR: CCJ 3024 or C.I. Theories, structures, and methods of institutional and non-institu-tional processing and treatment of con-victed criminals and juvenile offenders.

## CCJ 3312 HPA-CJ/LS 3(3,0)

Prisons and jails: PR: CCJ 3306. An overview and analysis of issues in institutional corrections, focussing on prison and jail history, inmates, guards, administration and management, and programming.

CCJ 3321 HPA-CJ/LS 3(3,0)
Community-Based Corrections: PR: CCJ 3024 and CCJ 3306 or C.I. An overview and analysis of correction interventions and treatment programs in the community.

CCJ 3341 HPA-CJ/LS 3(3,0)
Correctional Interventions in Criminal Justice: PR: CCJ 3014. Intervention techniques used with juvenile and adult offenders in institutional and community-based settings and study of the theoretical foundations.

CCJ 3450 HPA-CJ/LS 3(3,0)
The Criminal Justice Manager: PR: CCJ 3024 or C.I. Elements of first-line supervision and executive development. Administrative leadership; its nature; methods, and traits. Recent theories and research in leadership.

CCJ 3451 HPA-CJ/LS 3(3,0)
Justice System Technology: PR: CCJ 3024 or C.I. Examination of the relevance of scientific and technological developments to justice systems and their applicability to the operations and management of the systems.
CCJ 3483 HPA-CJ/LS 4(4,0)
Labor Relations in Criminal Justice: PR: CCJ 3024 and CCJ 3450 or C.I. Examine the role of public sector labor relations in criminal justice to include management-employee relationships, collective bargaining process, employee organizations, and federal-state laws.

CCJ 3520H HPA-CJ/LS 3(3,0)
Honors Juvenile Offenders: An Integrative Perspective: PR: C I. To provide students with an integrative understanding of the social, psychological, and legal dynamics evident in processing juvenile offenders.

Victims and the CJ System: PR: CCJ 3024. Course examines Victims as they affect the Criminal Justice system, the dimensions of criminal victimization, and victim offender programs.

## CCJ 4035 HPA-CJ/LS 3(3,0)

Crime and the Media: PR: CCJ 3024 or C.I. Explore how the criminal justice system, criminals, and crime are portrayed in the media and its impact on society and the criminal justice system.

CCJ 4075 HPA-CJ/LS 3(3,0)
Crime Analysis I: PR: CCJ 4152. Provides the essential data analysis skills necessary to effectively analyze crime, understand crime data structures and the problems inherent in crime data.

## CCJ 4076 HPA-CJ/LS 3(3,0)

Crime Analysis II: PR: CCJ 4152, CCJ 4075. Designed to provide advanced data analysis skills that will enable a crime analysis sophisticated methodologies to crime analysis.

## CCJ 4100 HPA-CJ/LS 3(3,0)

Criminal Investigation: PR: CCJ 4105. Course acquaints students with basic Procedures used in Criminal investiga-tions, purpose of investigations, and ingredients for successful investigations.

## CCJ 4105 HPA-CJ/LS 3(3,0)

Police and Society: PR: CCJ 3024. An examination of the varied roles of police in contemporary society. Emphasis is on dynamics of police/citizen interactions and the police subculture.

CCJ 4140 HPA-CJ/LS 3(3,0)
Community Policing: PR: CCJ 3014, CCJ 4105. The viability of community policing. The theoretical basis for community interventions are related to the daily operations required by community policing

## CCJ 4152 HPA-CJ/LS 3(3,0)

Crime and Place: PR: CCJ 3024. Provides an understanding of how physi-cal environmental features - the natural and built environment - influences crime events.

## CCJ 4233 HPA-CJ/LS 3(3,0)

Legal Aspects of Policing: PR: CCJ 4105. The legal dimensions of various police decision-making stages; including stops and frisks; arrests; searches and seizures wiretappings; and, interrogations

## CCJ 4270 HPA-CJ/LS 3(3,0)

Legal Aspects of the Criminal Court Process: PR: CCJ 3290. The legal dimen-sion of various criminal court decision making stages, including; bail; charging; preliminary hearing; grand jury; pretrial hearings plea hearings; trial; and, sentencing

Criminal Sentencing: PR: CCJ 3024, CCJ 3290. Examines the myriad theoretical, empirical and operational issues involved in criminal sentencing policy in American society.

## CCJ 4361 HPA-CJ/LS 3(3,0)

Death Penalty: PR: CCJ 3024. This course provides students an opportunity to analyze and discuss complex issues surrounding the death penalty and the criminal justice system.

## CCJ 4454 HPA-CJ/LS 3(3,0)

Policy Development in Law Enforcement: PR: CCJ 4105. The course is designed to deal with policy develop-ment in law enforcement. Major issues of organization, administration, personnel practices and police operations will be addressed.

CCJ 4459 HPA-CJ/LS 3(3,0)
Justice Agency Operations: PR: CCJ 3024 and CCJ 3450 or C.I. Elements, functions, and processes essential to the continuing management of various criminal justice agencies, institutions and court systems.

CCJ 4463 HPA-CJ/LS 3(3,0)
Cultural Diversity in Criminal Justice: PR: CCJ 3024. This course focuses on the problems and issues associated with race, ethnic and gender relations in the administration of justice in a democratic society.

CCJ 4484 HPA-CJ/LS 3(3,0)
Liability Issues in Criminal Justice: PR: CCJ 3024. Student of fundamental concepts found in civil law with an emphasis on civil liability regarding criminal justice practices.

## CCJ 4486 HPA-CJ/LS 3(3,0)

Criminal Justice Ethics: Focuses on the ethical issues and problems commonly encountered in the criminal justice system (policy courts and corrections).

CCJ 4540 HPA-CJ/LS 3(3,0)
Delinquency Control: PR: CCJ 3024 and CCJ 3290 or C.I. Examination of programs and institutions including juvenile court process, intake services, and remedial procedures and practices.

CCJ 4615 HPA-CJ/LS 3(3,0)
Serial Murder and Criminal Justice: PR: CCJ 3014. Study of extent, types, and explanations of serial murder, and responses of the general public, law enforcement, and prosecution.

## CCJ 4616 HPA-CJ/LS 3(3,0)

Criminal Profiling in Criminal Justice: PR: CCJ 3014. Examines criminal profiling undertaken by law enforcement and prosecution authorities which consists of gathering, reviewing and analyzing evidence pertaining to violent crimes.

CCJ $4630 \quad$ HPA-CJ/LS $\mathbf{4 ( 4 , 0 )}$

Comparative Justice Systems: PR: CCJ 3024 and CCJ 3290 or C.I. A survey of contemporary foreign criminal justice and differences emerging from various political, cultural and legal systems.

CCJ 4641 HPA-CJ/LS 3(3,0)
Organized Crime: An examination of organized crime, including structures, history and activities, and of issues surrounding efforts to define and control it.

## CCJ 4644 HPA-CJ/LS 3(3,0)

White Collar Crime: PR: CCJ 3014 and CCJ 3024. Classic definitions and state-ments on white collar crime concepts, concepts and criminal activities, types of fraud, investigations, environ-mental crime, and corporate crime.

CCJ 4651 HPA-CJ/LS 3(3,0)
Drugs and Crime: Focuses on the problems of drugs and drug control in contemporary society. Students will examine the problems of drugs in our society as well as specific strategies used by criminal justice agencies to prevent and control illicit drug use.

## CCJ 4661 HPA-CJ/LS 3(3,0)

Terrorism: PR: CCJ 3024 and CCJ 4105 or C.I. An examination of competing ideologies of a variety of social and political conflicts (both international and domestic) that give rise to terrorism and of the implications for the criminal justice system.

CCJ $4670 \quad$ HPA-CJ/LS 3(3,0)
Women and Crime: This course covers women in criminal justice as offenders and prisoners, as well as crime victims and professionals working in the system.

CCJ 4681 HPA-CJ/LS 3(3,0)
Domestic Violence and the Justice System: PR: CCJ 3024. Study of the nature and causes of forms of domestic violence, pertaining to laws, prevention strategies, and justice system response.

CCJ 4690 HPA-CJ/LS 3(3,0)
Sex Offenders and the Criminal Justice System: PR: CCJ 3024. Provides students a better understanding of how the criminal justice system deals with sex offenders and their offenses.

## CCJ 4701 HPA-CJ/LS 3(3,0)

Research Methods in Criminal Justice: Overview of the social science research methodology used in criminal justice, covers the major forms of research designs used by social science and evaluates their strengths and weaknesses.

CCJ 4907H HPA-CJ/LS 3(3,0)
Criminal Justice Research Methods Honors: PR: CCJ 3024. Overview of the social science research methodology used in criminal justice, covers the major forms of research designs used by social science and evaluates their strengths and weaknesses. Honors level content.

CCJ 4941 HPA-CJ/LS 6-9(0,12-3
Criminal Justice Internship: PR: C.I. Internship in municipal, county, state or federal criminal justice agency. Includes assignments in police, courts, corrections components.
CCJ 5015 HPA-CJ/LS 3(3,0)
The Nature of Crime: This course pro-vides an overview of major dimensions of crime in the U.S.; epidemology of crime, costs of crime, and typologies of crime and criminals.

CCJ 5040 HPA-CJ/LS 6(6,0)
International Perspectives on Law and Justice: PR: C.I. or graduate standing. Examination of the legal and criminal justice systems of other nations and territories through lecture, seminar, research and field visits.

CCJ 5073 HPA-CJ/LS 3(3,0)
Data Management Systems for Crime Analysis: PR: graduate standing or C.I. This course is designed to provide the conceptual basis, understanding, and skills necessary for complex crime data manipulation.

## CCJ 5105 HPA-CJ/LS 3(3,0)

Foundations of Law Enforcement: PR: C.I. Examines police role in modern society and law enforcement policy.

CCJ 5305 HPA-CJ/LS 3(3,0)
Foundations of Corrections: PR: C.I. Provides an overview of correctional process in U.S., including philosophical foundations and contemporary practices.

CCJ 5406 HPA-CJ/LS 3(3,0)
Research and Technology Implementation: Changing roles of social and physical sciences as related to the objectives and administration of public safety agencies.

CCJ 5456 HPA-CJ/LS 3(3,0)
The Administration of Justice: This course provides an overview of the criminal justice system and a critical analysis of formal and informal processing of offenders by criminal justice agencies.

CCJ 5467 HPA-CJ/LS 3(3,0)
Justice and Safety System Manpower: Processes essentials to administration to human resources in criminal justice and public safety agencies; structure and processes for acquisition, training, and maintenance of personnel.

CCJ 5704 HPA-CJ/LS 3(3,0)
Research Methods in Criminal Justice: An examination of the philosophy and techniques of research as applied in the Criminal Justice field.

CDA 3101 ECS-EECS 1(1,0)
Introduction to Data Communications: I/O processing, DMA, interrupts, asynchronous and synchronous data communications, serial communication standards, modems, and protocols.

## CDA 3103C ECS-EECS 3(3,1)

Computer Organization: PR: COP 2500C. Combinational logic, arithmetic circuits, sequential logic design, finite state machine design, software tools for logic design, and assembly language programming.

## CDA 4150 ECS-EECS 3(3,0)

Computer Architecture: PR: COP 3402C and CDA 3103C. Basic processor design, hardwired and microprogrammed control, ALU, memory organization, pipelining, I/O and computer arithmetic.

## CDA 5106 ECS-EECS 3(3,0)

Advanced Computer Architecture I: PR: CDA 4150. Instruction set architectures, processor implementation, memory hierarchy, pipelining, computer arithmetic, vector processing, and I/O.

## CDA 5110 ECS-EECS 3(3,0)

Parallel Architecture and Algorithms: PR: COT 4210, CDA 5106. General-purpose vs. special-purpose parallel com-puters; arrays, message-passing; shared-memory; Taxonomy; parallelization tech-niques; communication synchronization and granularity; parallel data structures; automatic program restructuring.

## CDA 5215 ECS-EECS 3(3,0)

Architecture and Design of VLSI: PR: CDA 4150 or equivalent. Overview of VLSI technology. Logical design of basic subsystems; integrated system design tools; design of a VLSI computer system.

## CDA 5501 ECS-EECS 3(3,0)

Computer Communication Networks Architecture: PR: CDA 4150. Computer networks, layers, protocols and interfaces, local area networks networking.

## CDA 5530 ECS-EECS 3(3,0)

Performance Models of Computers and Networks: PR: senior standing or beginning graduate student. Performance Models of Computer Systems and Networks using probability models and discrete event simulations. Queuing Theory and modeling tools

CEG 3301 ECS-CEE 3(3,0)
Engineering and Environmental Geology: PR: EGN 3310 and CHS 1440 or equivalent. Principles of physical geology, with emphasis on engineering and environmental topics. Study of land forms, geologic maps, geologic structure, weathering, groundwater, mass wasting, and earthquakes.

Geotechnical Engineering I: PR: EGN 3331 and CWR 3201. Engineering pro-perties and classification of soils. Design considerations for compaction, seepage, consolidation, and settlement analysis.

## CEG 4801C ECS-CEE 3(2,2)

Geotechnical Engineering Design: PR: CEG 4101C. Project course on design of foundations and other soil structures using geotechnical design methodologies.

CEG 4812 ECS-CEE 1(1,0)
Historical Developments in Civil Engineering: Seminar covering major historical developments in civil engineering.

CEG 5015 ECS-CEE 3(3,0)
Geotechnical Engineering II: PR: CEG 4101C. Continuation of CEG 4101C with emphasis on shear strength and design factors for earth pressures, bearing capacity, and slope stability.

CEG 5700 ECS-CEE 3(3,0)
Geo-Environmental Engineering: PR: CEG 4101C. Geotechnical applications to environmental problems, groundwater flow, soil contamination and groundwater contaminate transport, geosynthetics and stability of landfill design, control of contaminated sites.

## CEN 4020 ECS-EECS 3(3,0)

Component-based Engineering Software: PR: EEL 4851C, EEL 4882. In-depth treatment of component-based software development including analysis design and implementation of correct and reusable software in different component levels

## CEN 5016 ECS-EECS 3(3,0)

Software Engineering: PR: COP 4020 and knowledge of Ada. Study of design techniques for large software systems, modularization, task assignment, management techniques, implementation techniques, testing, quality control, documentation, and maintenance.

## CES 4100 ECS-CEE 3(3,0)

Structural Analysis I: PR: EGN 3331. Topics in structural mechanics, energy methods, analysis of determinate and indeterminate structures by flexibility and stiffness methods.

## CES 4101 ECS-CEE 3(3,0)

Structural Analysis II: PR: CES 4101. Special structures; introduction to matrix structural analysis, dynamic loads including wind and earthquake.

CES 4130L ECS-CEE $1(0,3)$
Structures Laboratory: PR: EGN 3331; CR: CES 4100. Laboratory exercises on the behavior of structures and structural materials.

Steel Structures: PR: CES 4100. Design of structural steel members and buildings; emphasis on AISC-ASD building code; introduction to AISC-LRFD building code; tension and compression members, beams, beam-columns, connections.

## CES 4608C ECS-CEE 3(2,2)

Steel Design: PR: CES 4605. Project course on design of steel components, connections, and frame structures using AISC specifications.

CES 4702 ECS-CEE 3(3,0)
Reinforced Concrete Structures: PR: CES 4100 or C.I. Design of RC members using ACI code; beam flexure and shear; compression bending; bond and development; introduction to continuous frames.

## CES 4709C ECS-CEE 3(2,2)

Concrete Design: PR: CES 4702. Project course on design of concrete structures using concrete and structural analysis methodologies.

## CES 5325 ECS-CEE 3(3,0)

Bridge Engineering: PR: CES 4605; CES 4702. Structural systems for bridges, loading, analysis by influence lines, slab and girder bridges, composite design, prestressed concrete, rating of existing bridges, specifications and economic factors.

CES 5606 ECS-CEE 3(3,0)
Advanced Steel Structures: PR: CES 4605. Behavior and design of steel buildings; emphasis on AISC-LRFD building code; complex connections, tension members, stability of compression members, laterally unsupported beams, frames, and beam columns.

## CES 5706 ECS-CEE 3(3,0)

Advanced Reinforced Concrete: PR: CES 4702 or C.I. Design of frames, two-way floor systems, shear walls; shear and torsion; compression field theory; inelas-tic analysis; wind and seismic design; introduction to prestressed concrete.

CES 5821 ECS-CEE 3(3,0)
Masonry and Timber Design: PR: C.I. Structural properties of masonry and timber; design loads-codes and standards; analysis for axial loads, flexure and shear

## CET 2123C ECS-ENT 3(2,3)

Microprocessor Electronics I: PR: MAC 1105. Introduction to micro-processors. Includes machine language programming, an introduction to micro-processor-based system architecture, and binary and hexadecimal arithmetic.
CET 2364 ECS-ENT $3(3,0)$

Systems Applications in C: PR: MAC 1105. Use of C language in control of system processes, DOS
and BIOS interrupts, and interfacing with assembly language.

## CET 3144C ECS-ENT 3(2,2)

Applied Microprocessor Technology: PR: DC Circuit Analysis, Digital and Microprocessor Fundamentals, and high level programming language. Analysis and design of the components, archi-tecture, and interfacing of a micro-computer. Specific reference to IBM compatible microcomputers and peri-pherals. Troubleshooting and repair are emphasized in the laboratory.

## CET 3198C ECS-ENT 4(3,2)

Digital Systems: PR: DC Circuits and Digital Circuits 1. Finite State Machines and Algorithmic State Machines, includes design, synthesis and implementation of a digital system using schematic capture and VHDL

## CET 3323C ECS-ENT 4(3,2)

Digital Technology: PR: MAC 1105 and C.I. Digital logic gates, memory devices, Karnaugh Maps, combinational logic, arithmetic units, registers and sequential logic.

## CET 3383 ECS-ENT 3(3,0)

Applied Systems Analysis I: PR: CET 2364 or equivalent. Study of system analysis, design, development and implementation cycle. Includes Object Oriented Programming (OOP) to implement system programs.

CET 3503 ECS-ENT $3(3,0)$
Microcomputer Technology I: PR: CET 2123C and high level programming language. Microcomputer assembly programming, including overview of architecture and operating system environment.

## CET 3752 ECS-ENT 3(3,0)

Intro to Telephony: PR: EET 3085C or equivalent or C.I. An introductory level course in telephony technology. The telephony environment, telemanagement, telephony connectivity and services of telephony.

CET 4134C ECS-ENT 4(3,2)
Microprocessor Electronics II: PR: Digital Circuits I. The MC6800 software architecture programming and hardware architecture are covered in great detail. Assembly language programming, interfacing, and hardware characteristics as well as applications are covered.

## CET 4138 ECS-ENT 4(3,2)

Digital Programmable Devices: PR: CET 3198C or equivalent and C.I. Architecture and applications of various types of programmable logic devices. Design entry methods, e.g. HDL, schematic capture, etc. Lab exercises using PALS, PLDs, and FPGSs.

## CET 4188 ECS-ENT $\mathbf{4}(\mathbf{4}, \mathbf{0})$

Microcomputer Technology II: PR: CET 3303. Continuation of CET 3303. Advanced assembly language program-ming including macros, system subrou-tines, high-level language interfacing, device drivers, and operating system enhancements.

## CET 4333 ECS-ENT 3(3,0)

Computer Organization and Design: PR: CET 3323C. Basic computer architecture and system design. An introduction to memory, processor, Bus and I/O organization.

## CET 4334C ECS-ENT 3(2,2)

Applied Computer Systems II: PR: CET 4333. Continuation of CET 4333. High performance computer architecture. Parallel processing and scalable shared-memory multiprocessing.

CET 4427 ECS-ENT $\mathbf{3}(\mathbf{3}, 0)$
Applied Database I: PR: CET 2364 or equivalent. Design and implementation of data base systems within the concept of central administration, structured data storage. Programming project.

CET 4429 ECS-ENT 3(3,0)
Applied Database II: PR: CET 4427. Continuation of CET 4427. Study of hierarchical database system. Program-ming project is required.

CET 4483 ECS-ENT 3(3,0)
Intro to Local Area Network Technology: PR: EET 3085C or equiva-lent or C.I. An introductory level course in local area networks. Topics in data communications, computer networking, local area network technology, topolo-gies, and protocols will be covered.

## CET 4505 ECS-ENT 3(3,0)

Applied Operating Systems I: PR: CET 2364. Modifying the operating systems to support new types of devices. Analysis of limitations and strengths of commercial mass storage operating systems in industry. O.S. tool box usage.

CET 4523 ECS-ENT 3(3,0)
Applied Systems Analysis II: PR: CET 3383. Continuation of CET 3383, with emphasis on distributed processing which includes the interfacing of minis, main-frames, software, communications, and data base technology into a responsive information system.

## CET 4741L ECS-EECS 3(0,3)

Computer Networking Laboratory: PR: C.I. Laboratory exercises to enhance the understanding of concepts/principles discussed in computer networking and data communication texts.

## CET 4915C ECS-ENT 3(1,4)

Senior Design Project: PR: Computer, Electronics, or Information Systems Engineering Technology senior within 18 semester hours of graduation. Supervised individual or group projects involving
project definition, planning, design, development, testing and evaluation. Progress reports and final report are required.

## CET 4931 ECS-ENT 3(3,0)

Current Topics in Technology: PR: C.I. Study of recent state-of-the-art computer related topics from recognized electronics and computer oriented technical journals and texts. Requires written and verbal communication.

CGN 3501C ECS-CEE 3(2,3)
Civil Engineering Materials: PR: C.I. The characterization of materials used in civil engineering works to include concrete, soils, bituminous, polymers and composite materials.

## CGN 4300 ECS-CEE 3(3,0)

Civil Engineering Systems: PR: EGN 3613; MAC 2313; STA 3032. Mathemat-ical techniques commonly associated with operations research and economics which are applicable to the planning, design, and operation of civil engineering systems.

## CGN 4600 ECS-CEE 3(3,0)

Public Works Engineering: PR: ENV 3001 and CWR 3201. An overview of planning, design, operation and main-tenance of public works, with emphasis o water and wastewater treatment plants. May be repeated for credit.

## CGN 5320C ECS-CEE

Geographic Information systems: Programming theory and application of Geographic Information Systems to Civil Engineering projects.

CGN 5504C ECS-CEE 3(2,2)
Civil Engineering Materials: PR: EGN 3365, EGN 3331, or C.I. Structure, properties, and applications of materials used in civil engineering including concrete, steel, asphalt, wood, soils, and composite materials.

## CGN 5506C ECS-CEE 3(2,2)

Asphalt Concrete Mix Design: PR: CEG 4101C. Properties of asphalt, aggregate and asphalt mixtures, Marshall mix design, Hveem mix design, pavement rehabilitation.

CGS 1060C ECS-EECS 3(2,2)
Introduction to Computer Science: History, typical computer, number systems, control and data flow, peripheral components, memory devices, effects of computers on society, applications of computers. Not open to Computer Science Majors.

## CGS 1060H ECS-EECS 3(2,2)

Honors Introduction to Computer Science: PR: Admission to Honors Pro-gram. History, number systems, control and data flow, peripheral components, memory devices, effects of computers on
society, applications of computers. Not open to Computer Science Majors

## CGS 2100C ECS-EECS 3(2,1)

Computer Fundamentals for Business: Uses of computers and software in business, including business applications, commercial packages, and the internet. Not open to Computer Science majors.

## CGS 2515 ECS-EECS 3(3,0)

Spreadsheet Concepts: PR: CGS 1060C. Advanced techniques of spreadsheets, charts, macros, objects, database features and data analysis tools.

CGS 2545C ECS-EECS 3(2,1)
Database Concepts: PR: CGS 1060C or equivalent. Entity-relation model, relational database management systems, normal forms, performance or databases, report generation.

## CGS 2585C ECS-EECS 3(2,1)

Desktop/Internet Publishing: PR: CGS 1060C or equivalent. Principles and techniques of page layout and formatting for documents and newsletters, presentation techniques, construction of web pages and design of integrated websites.

CGS 3175 ECS-EECS 3(3,0)
Internet Applications: PR: CGS 1060C. HTML coding, using images, sound and animation, advanced text formatting, forms and CGS scripts, introduction to javascript.

## CGS 3269 ECS-EECS 3(3,0)

Computer Architecture Concepts: PR: CGS 1060C. CPU organization, current computer architectures, network file servers. (Same as CGS 3266/3267/3268)

CGS 3285 ECS-EECS 3(3,0)
Computer Network Concepts: PR: CGS 1060C or equivalent. Network media, protocol, current and evolving standards for local, metropolitan, wide area and wireless networks.

CGS 3763 ECS-EECS 3(3,0)
Operating System Concepts: PR: CGS 1060C. System calls, concept of processes, CPU scheduling, security issues, client server paradigms, and computer supported workgroups.

CGS 4140 ECS-EECS 3(3,0)
Computerized Health Information Systems: PR: CGS 2100C or equivalent. Analysis of computerized health information systems, with emphasis upon the design and implementation phases. On-site visitations of several local computerized health information systems. Not open to Computer Science majors.

CGS 5131 ECS-EECS 3(3,0)
Computer Forensics I: Seizure and Examination of Computer Systems: PR: Graduate Computer

Science status or C.I. Legal issues regarding seizure and chain of custody. Technical issues in acquiring computer evidence. Popular file systems are examined. Reporting issues in the legal system.

## CGS 5132 ECS-EECS 3(3,0)

Computer Forensics II: Network Security, Intrusion Detection, \& Forensic Analysis: PR:
Computer Forensics I, or C.I. Computer network protocols and security, network intrusion detection and prevention, digital evidence collection and evaluation, and legal issues involved in network forensics analysis.

CGS 5310 ED-IP 3(3,0)
Computer-Based Educational Systems: PR: COP 4020 or equivalent. The design and implementation of computer-based educational systems. Selected projects using high-level programming languages.

CHI 1120 AS-LANG $\mathbf{4}(4,1)$
Elementary Chinese Language and Civilization I: Designed to initiate the student to the major language skills: listening, speaking, reading and writing.

CHI 1121 AS-LANG $\mathbf{4}(4,1)$
Elementary Chinese Language and Civilization II: PR: CHI 1120 or equivalent. Continuation of CHI 1120.

## CHI 1140H AS-LANG $\mathbf{4}(\mathbf{4}, \mathbf{0})$

Honors Elementary Chinese Language and Civilization I: PR: Honors students or C.I. Introduces the student to Chinese culture through the major language skills: Listening, speaking, reading and writing. Open only to students with no experience in the language. Honors level content.

## CHI 1141H AS-LANG 4(4,0)

Honors Elementary Chinese Language and Civilization II: PR: Honors student or C.I. Continuation of CHI 1140H

## CHM 1020 AS-CHEM 3(3,0)

Concepts in Chemistry: PR: MAC 1105 or MGF 1106. Concepts will be examined to provide insight into the significant role that chemistry plays in our culture. Intended as a general education course.

## CHM 1032 AS-CHEM 3(3,0)

General Chemistry: PR: MAC 1105, MGF 1106 or equivalent. An introductory study of the fundamental concepts of chemistry, primarily oriented toward COH and PA majors.

CHM 1032L AS-CHEM 1(0,3)
General Chemistry Laboratory: CR: CHM 1032. An introductory study of physical and chemical properties of elements and compounds.

Chemistry Fundamentals I: PR: High school chemistry or CHM 1032. Basic physical theory of chemical reactivity, atomic structure, chemical bonding, periodicity, stoichiometry, equilibria, thermodynamics, and kinetics.

## CHM 2045H AS-CHEM 4(3,1)

Honors Chemistry Fundamentals I: PR: High school chemistry and admission to University Honors Program. Same as CHM 2045C with honors-level content.

## CHM 2046 AS-CHEM 3(3,0)

Chemistry Fundamentals II: PR: CHM 2045C. Continuation of CHM 2045C.
CHM 2046H AS-CHEM 3(3,0)
Honors Chemistry Fundamentals II: PR: CHM 2045C Honors. Same as CHM 2046 with
honors-level content.

## CHM 2046L AS-CHEM 1(0,3)

Chemistry Fundamentals Laboratory: PR: CHM 1032 or CR: CHM 2046. Illustration of chemical principles and introduction to the techniques of inorganic and physical chemistry.

## CHM 2046LH AS-CHEM 1(0,3)

Honors Chemistry Fundamentals Lab : PR: CHM 2045CH and CR: CHM 2046H. Illustration of chemical principles and introduction to the techniques of inorganic and physical chemistry with honors-level content.

## CHM 2205 AS-CHEM 5(5,0)

Introduction to Organic and Biochem-istry: PR: CHM 1032 or equivalent. An introduction to organic chemistry, stressing the chemistry of functional groups and a survey of the biochemistry of proteins, carbohydrates, lipids, and nucleic acids.

CHM 2210 AS-CHEM 3(3,0)
Organic Chemistry I: PR: CHM 2046. Theory and applications of organic chemistry: structure, bonding, kinetics, thermodynamics, reaction mechanisms, synthesis, and stereochemistry. Structure elucidation via spectrometic techniques.

## CHM 2211 AS-CHEM 3(3,0)

Organic Chemistry II: PR: CHM 2210. Continuation of CHM 2210.

## CHM 2211L AS-CHEM 2(0,6)

Organic Laboratory Techniques I: PR: CHM 2210. An introduction to the labor-atory techniques of organic chemistry, including the preparation, reaction, and analysis of organic compounds.

## CHM 3120C AS-CHEM 5(3,6)

Analytical Chemistry: PR: CHM 2046, 2046L. Laboratory practices of classical and instrumental
analysis. Choice of preferred analytical methods and techni-ques is emphasized through applications involving both inorganic and organic systems.

## CHM 3212L AS-CHEM 2(0,6)

Organic Laboratory Techniques II: PR: CHM 2211 and CHM 2211L. Open-end laboratory to develop synthesis techni-ques and structure elucidation skills.

## CHM 3410 AS-CHEM 4(3,1)

Physical Chemistry I: PR: CHM 2046, PHY 2049, and MAC 2312. Rigorous treatment of atomic and molecular structure, thermodynamics, kinetics, and chemical bonding.

CHM 3411 AS-CHEM 3(3,0)
Physical Chemistry II: PR: CHM 3410. Continuation of CHM 3410.

## CHM 3411L AS-CHEM 2(0,6)

Physical Chemistry Laboratory: PR: CHM 3120C and CR: CHM 3411. Classical as well as modern instrumental techniques coupled with computer data processing to measure physical properties and determine atomic and molecular parameters.

## CHM 4130C AS-CHEM $\mathbf{4}(2,6)$

Advanced Analytical Laboratory Technique: PR: CHM 2211, CHM 3120C and CHM 3411. A lecture-laboratory course designed to give in-depth coverage to modern methods of analysis including electrochemistry, spectroscopy, and separation techniques.

## CHM 4220 AS-CHEM 3(3,0)

Organic Chemistry III: PR: CHM 2211 or its equivalent. Organic reaction mechanisms and retrosynthetic analysis and their application to synthetic chemistry.

## CHM 4610 AS-CHEM 3(3,0)

Inorganic Chemistry: CR: CHM 3411. A discussion of descriptive inorganic chemistry based on various bonding theories, thermodynamics, and kinetics.

## CHM 4610L AS-CHEM <br> 2(0,6)

Inorganic Chemistry Laboratory: PR: CHM 4610. A study of physical and chemical properties and synthetic techniques in Inorganic Chemistry.

## CHM 4615 AS-CHEM 3(3,0)

Environmental Chemistry: PR: CHM 2046, senior level in biological, molecular, chemical or engineering sciences, or C.I. Principles of environmental chemistry, survey of environmental law, remediation technologies, industrial practices and environmentally responsible chemistry.

## CHM 4930 AS-CHEM 1(1,0)

Undergraduate Chemistry Seminar: PR: CHM 3411. A topic of current chemical interest will be
presented by students at a regularly scheduled departmental seminar.

## CHM 5225 AS-CHEM 3(3,0)

Advanced Organic Chemistry: PR: CHM 2211. Theoretical and physical organic concepts of organic systems from the perspective of modern structural theory, thermodynamics, and kinetics.

## CHM 5235 AS-CHEM 3(3,0)

Applied Molecular Spectroscopy: PR: CHM 3120C and CHM 2211. Determin-ation of chemical structure through inter-pretation of UV. IR, NMR and Mass Spectra.

## CHM 5305 AS-CHEM 3(3,0)

Applied Biological Chemistry: PR: CHM 2211. The identification from plants, synthesis, assessment of bioactivity, and design of pharmaceuticals and agrochemicals, as well as the impact of biotechnology in the chemical industry.

## CHM 5450 AS-CHEM 3(3,0)

Polymer Chemistry: PR: CHM 2211. An introduction to the chemistry of synthetic polymers. Synthetic methods, polymeri-zation mechanisms, characterization techniques, and polymer properties will be considered.

## CHM 5451C AS-CHEM 3(1,5)

Techniques in Polymer Science: PR: CHM 2211 and CHM 3410. A laboratory and lecture course designed to introduce students to the major polymerization mechanisms along with polymer characterization and processing methods using modern instrumentation.

## CHM 5580 AS-CHEM 3(3,0)

Advanced Physical Chemistry: CR: 3411 and PR: MAC 2313. Selected topics of thermodynamics, kinetics, quantum mechanics, and structure.

## CHM 5711 AS-CHEM 2(2,0)

The Chemistry of Materials: PR: CHM 2211, CHM 4130C, and CHM 3411. Structure and properties of chemical products, with an emphasis on the correlation between molecular form and the functional properties deemed desirable for the product.

## CHS $1440 \quad$ AS-CHEM $\mathbf{4}(3,1)$

Fundamentals of Chemistry for Engineers: PR: One year of high school chemistry or CHM 1032. Basic concepts of chemistry, with emphasis on problem solving and engineering applications. Atomic and molecular structure, states of matter, stoichiometry, equilibria, electrochemistry and thermodynamics.

## CHS 3501 AS-CHEM 3(3,0)

Introduction to Forensic Science: PR: 'C' grade or better in CHM 2046 \& L, or C.I. Intended for majors and non-majors to provide an overview of the specialty areas in Criminalistics (crime lab).

Forensic Microscopy: PR: 'C' grade or better in CHM 2046 \& L, PHY 2054C and CHS 3501. The study of the polarized light microscope and its use in the identification and comparison of trace evidence.

## CHS 3511C AS-CHEM $\mathbf{4}(2,6)$

Trace Evidence: PR: 'C' grade or better in CHS 3505C. An advanced study of the techniques used to identify and compare trace evidence.

## CHS 3530C AS-CHEM 4(2,6)

Forensic Analysis of Controlled Substances: PR: 'C' grade or better in CHM 3120C, CHM 3410, CHM $2211 \& \mathrm{~L}$ and CHS 3505C. The study of the presumptive tests, isolation, and instrumental techniques used in identification of controlled substances.

## CHS 3533C AS-CHEM 3(2,3)

Forensic Biochemistry I: PR: 'C' or better in BSC 2010C, PCB 3063 \& L, and PCB 3233 \& L. Introduction to the concepts and procedures of contemporary forensic biochemistry, including the identification of body fluids and the use of genetic markers to establish identity.

## CHS 3540C AS-CHEM 2(1,3)

Fire and Debris Analysis I: PR: CHM 3120C and C.I. A lecture/laboratory course covering the procedures for recovering and identifying flammable liquids in fire related evidence.

## CHS 3595 AS-CHEM 3(3,0)

Forensic Science in the Courtroom: PR: CHS 3501. The special needs of the forensic scientist in preparing for and participating in courtroom proceedings.

CHS 3949 AS-CHEM $0(0,8)$
Cooperative Education in Chemistry: PR: Departmental permission required before registering. Cooperative education experience in chemistry. May be repeated. Graded S/U.

## CHS 4200 AS-CHEM 3(3,0)

Concepts in Industrial Chemistry: PR: CHM 3410. An introduction to industrial practices, emphasizing the application of chemical principles in the development of a commercial process or product.

CHS 4506C AS-CHEM 3(2,3)
Forensic Investigation Technology: PR: CHS 3501, CHS 3505C. Modern technology applied to forensic investigation.

## CHS 4534C AS-CHEM 3(1,6)

Forensic Biochemistry II: PR: CHS 3533C and C.I. Advanced treatment of the theoretical and practical aspects of forensic DNA analysis and the use of population genetics and genetic data analysis
for evidence interpretation.

## CHS 4541C AS-CHEM 2(1,3)

Fire and Debris Analysis II: PR: CHS 3540C or C.I. An advanced lecture/ laboratory course covering the procedures for recovering and identifying flammable liquids in real fire related evidence.

## CHS 4591 AS-CHEM 4(0,40)

Forensic Science Internship: PR: Senior standing, within 8 hrs. of completion of degree requirements, and 2.5 overall GPA. Credit for full-time work ( 15 weeks; 600 hours) for a professional forensic laboratory. This course may be repeated for credit.

## CJT 3803 HPA-CJ/LS 3(3,0)

Security Management: PR: CCJ 3024. Examination of a global security manage-ment environment impacted by downsiz-ing a dramatically changing work force, religious extremism/terrorism, technolog-ical revolution and other challenges.

## CJT 3804 HPA-CJ/LS 3(3,0)

Security Administration: Discussion of modern security administration and the security-law enforcement interface, emphasizing a systems approach and utilizing the design of a security plan for a plant.

## CJT 3819 HPA-CJ/LS 3(3,0)

Physical Security: PR: C.J. major or minor or C.I./CCJ 3024. Concepts and procedures for the development, implementation, and management of a physical security program and its application to assets protection.

## CJT 3821 HPA-CJ/LS 3(3,0)

Practical Security Applications: An examination of basic security principles applied to practical specific security situations encountered in the Central Florida area.

## CJT 3842 HPA-CJ/LS 3(3,0)

Special Security Problems: Review and application of basic security principles to retail security, transportation/cargo security, utility security, computer security, and other special security situations.

## CJT 4843 HPA-CJ/LS 3(3,0)

Risk Management in Criminal Justice/Private Security: PR: CJT 3804. This course examines the concept of risk management in a criminal justice context.

## CLA 3850 AS-PHIL 3(3,0)

Classical Mythology: Myths of the Greeks \& Romans studied through excerpts from ancient sources and experienced through works of art, literature, and music.

Comparative Mythology: Common themes found in the myths of various cultures; theories of their origins, meaning and value in human experience.

## CLP 3143 AS-PSYCH 3(3,0)

Abnormal Psychology: PR: PSY 2013 and PPE 3003. Classification, causation, and treatment of deviant patterns of behavior.

## CLP 3302 AS-PSYCH 3(3,0)

Clinical Psychology: PR: PPE 3003 and CLP 3143. An overview of approaches to psychopathology, methods of clinical assessment, and various approaches to individual and group counseling.

## CLP 3413 AS-PSYCH 3(3,0)

Contemporary Behavior Therapy: PR: CLP 3143. Emphasis on the underlying principles and the specific intervention procedures which are utilized in contemporary behavior therapy, including treatment strategies for particular behavior disorders.

## CLP 3467C AS-PSYCH 3(2,2)

Interpersonal Effectiveness and Group Psychotherapy: PR: PSY 2013. Psychological aspects of interpersonal relationships, the rationale for group therapy, and strategies for enhancing interpersonal skills and personal growth.

## CLP 4134 AS-PSYCH 3(3,0)

Childhood Psychopathology: PR: PSY 2013, CLP 3143, DEP 2004, PPE 3003. An in-depth survey of the prevalence, classification, symptoms, diagnosis, consequences, and treatments of disorders of infancy, childhood, and adolescence.

## CLP 4402C AS-PSYCH 3(2,2)

Psychology of Physical Disability: PR: PSY 2013. Psychological aspects of physical disability and rehabilitation. Psychological adjustment, body-mind relationships, family and societal dynamics relative to therapeutic intervention.

## CLP 5004 AS-PSYCH 3(3,0)

Psychology of Adult Adjustment: PR: C.I. A survey of situations encountered during adulthood, including marriage, birth, parenthood, trauma, illness, death, etc. Effective adjustment.

## CLP 5166 AS-PSYCH 3(3,0)

Advanced Abnormal Psychology: Consideration of classification, causation, management and treatment of emotional disorders. Review of theories and research in the field. Lecture/Laboratory.

## CLP 5187 AS-PSYCH 3(3,0)

Mental Health and Aging: PR: Post-bac or Graduate standing or C.I. Introduction to assessment and intervention issues, practice and research related to problems with cognitive and emotional functioning among older adults. May be repeated for credit.

Corporate/Institutional Video: PR: RTV 3200, RTV 3260C (RTV 3260 may be taken concurrently). Preparation of non-broadcast corporate/institutional video programs including planning, budgeting, production, and evaluation.

## COM 3011C AS-COMM <br> 3(1,2)

Communication and Human Relations: PR: COM 3311. Introduction to semantics; symbols and meaning and the relationship with human behavior.

COM 3110 AS-COMM 3(3,0)
Business and Professional Communication: PR: Majors only, SPC 1600C or C.I. Theoretical and practical training in effective presentational speaking for business and professions.

COM 3120 AS-COMM 3(3,0)
Organizational Communication: PR: COM 3311. A study of communication functions and problems within the contexts of hierarchies.

COM 3311 AS-COMM 3(3,0)
Communication Research Methods: PR: STA 2023 and either COM 3701, or COM 4014, or COM 4461 or SPC 3301. Investigation of research methods used in communication. Understanding and inter-pretation of original research emphasized.

## COM 3330 AS-COMM 3(3,0)

Computer Mediated Communication: PR: RTV 4403, MMC 3311, and RTV major. Digital media communities, synchronous and asynchronous computer-mediated communication forums are placed within the context of mass communication theory, media ecology and CMC theory.

COM 3701 AS-COMM 3(3,0)
Humor in Communication: Designed for upper division organizational and interpersonal communication majors, course probes the involvement of humor in language, message transmission, cognition, and social functioning.

## COM 4014 AS-COMM 3(3,0)

Gender Issues in Communication: PR: SPC 1600 and Junior Standing. A study of how communication exchanges, both verbal and non-verbal, differ between
men and women, and how these differences are manifested.
COM 4461 AS-COMM 3(3,0)
Intercultural Communication: Study of variables affecting messages and participants in intercultural contexts.

Conflict Management: PR: COM 3311. The study of communication in everyday conflicts.
COP 2200 ECS-EECS 3(3,0)
Computer Programming: PR: College algebra and trigonometry or equivalent. Problem definitions, algorithms, flow charts, digital computer programming using a higher level language (FORTRAN). Not open to Computer Science Majors.

COP 2500C ECS-EECS 4(3,1)
Concepts in Computer Science: Fundamental concepts in program design, data structures, algorithms, analysis and a survey of topics in CS. Not open to Computer Science majors.

## COP 3223 ECS-EECS 3(3,0)

C Language: C Language: Programming in C through pointers and pointer arithme-tic standard C language subroutine: lib-raries, lectures and experience in using C.

COP 3330 ECS-EECS 3(3,0)
Object Oriented Programming: PR: COP 3223. Object oriented programming concepts (classes, objects, methods, encapsulating, inheritance, interfaces) and the expression of these concepts in the programming languages such as JAVA

COP 3346 ECS-EECS 3(3,0)
Unix Programming: PR: Knowledge of a high level language. Unix file system, shells, shell programming, filters and program development in Unix.

## COP 3402C ECS-EECS 3(2,1)

Systems Software: PR: COP 3503C, passing score on foundation exam. CR: COP 3530C, knowledge of C. Concepts of Assembly Language. Design and development of assembly, linkers, loaders, Lexical Analysis and Compilers.

COP 3502C ECS-EECS 3(3,0-1)
Computer Science I: PR: MAC 1105, Knowledge of high level programming language. Problem solving techniques, order analysis and notation, abstract data types, and recursion; ethical, moral and social issues in computing.

COP 3502H ECS-EECS 3(3,0)
Honors Computer Science I: PR: MAC 1105, knowledge of a high level program-ming language. Problem solving tech-niques, order analysis and notation, abstract data types, and recursion; ethical, moral and social issues in computing.

COP 3503C ECS-EECS 3(3,0-1)
Computer Science II: PR: COP 3502. CR: COT 3100C. Continuation of Com-puter Science I. Introduction to object-oriented design, data structures, traversal techniques and program correctness.

Honors Computer Science II: PR: COP 3502H, CR: COT 3100C. Continuation of Honors Computer Science I. Object oriented design, data structures, traversal techniques and program correctness.

## COP 3530C ECS-EECS 3(3,0-1)

Computer Science III: PR: COP 3503C and passing score on foundation exam. Algorithm design and analysis for tree, list, set, relational and graph data models; effects of representation on algorithmic complexity. Introduction to parallel implementations.

COP 4020 ECS-EECS 3(3,0)
Programming Languages I: PR: COP 3530C. Survey of programming languages (LISP, MODULA, SIMULA, SMALLTALK, ADA, CLU). Basic concepts underlying programming languages: data typing, data abstraction, binding, parameter evaluation, concurrency, functional programming.

## COP 4232 ECS-EECS 3(3,0)

Software Systems Development I: PR: COP 3530C. The principles, process and methods for developing large software systems using Object-Oriented programming languages.

## COP 4233 ECS-EECS 3(3,0)

Software Systems Development II: PR: COP 4232 or COP 4331. The principles, processes, and methods for developing large software systems. A team-oriented project is required.

COP 4331 ECS-EECS 3(3,0)
Object-Oriented Paradigms: PR: COP 3402, COP 3530C. Object-oriented (00) analysis of problems; design and imple-mentation of 00 solutions. Principles and practices associated with environments and languates to support the 00 paradigm.

## COP 4520 ECS-EECS 3(3,0)

Concepts of Parallel and Distributed Processing: PR: COP 3530C, COP 3402. Parallel and distributed paradigms, archi-tectures and algorithms, and the analytical tools, environments and languages needed to support these paradigms.

## COP 4521 ECS-EECS 3(3,0)

Projects in Parallel and Distribution Processing: PR: COP 4520. Research and projects related to emerging architectures, computational models, languages and environments for parallel and distriuted computation.

## COP 4600 ECS-EECS 3(3,0)

Operating Systems: PR: COP 3402C and COP 3530C. The function and organization of operating systems, process management, virtual memory, and file management.

COP 4601L ECS-CEE 3(0,3)
Operating Systems Laboratory: PR: COP 3503C. CR: EEL 4882. Exercises in the configuration, development, management and analysis of operating systems; OS Kernel support for semaphores and
multi-tasking; security in a distributed heterogeneous environment.
COP 4710 ECS-EECS 3(3,0)
Database Systems: PR: COP 3530C. Storage and access Structures, database models and languages, related database design, and implementation techniques for database management systems.

COP 4910 ECS-EECS 3(3,0)
Frontiers in Information Technology: PR: EEL 4XXX (OS LAB), CET 4741L. Research into leading edge information technologies that have a high likelihood of affecting the work place in the two to five year time frame.

## COP 5021 ECS-EECS 3(3,0)

Program Analysis: PR: COP 4020 and COT 4210. Syntactic and Semantic analysis of programs. Theoretical and practical limitations, attribute evaluation, data flow analysis, program optimization, intermediate representations code generation. Tools to automate analysis.

## COP 5530 ECS-EECS 3(3,0)

Network Optimization: PR: Graduate standing in Computer Science or Computer Engineering. Recent advances in the theory and computational techniques for optimal design and analysis of large networks for computers, communications, transportation, web and other applications.

## COP 5570 ECS-EECS 3(3,0)

Software Tools: PR: COP 4600 and COP 5021. Systems programming languages, concurrent programming, design and implementation of software development/ maintenance tools. A large programming project is required.

## COP 5611 ECS-EECS 3(3,0)

Operating Systems Design Principles: PR: COP 4600. Structure and functions of operating systems, process communica-tion techniques, high-level concurrent programming, virtual memory systems, elementary queuing theory, security, distributed systems, case studies.

COP 5711 ECS-EECS 3(3,0)
Parallel and Distributed Database Systems: PR: COP 4710. Storage manager, implementation techniques for parallel DBMSs, distributed DBMS architectures, distributed database design, query processing, multidatabase systems.

## COT 3100C ECS-EECS 3(3,1)

Introduction to Discrete Structures: PR: MAC 1105, MAC 1114. Logic, sets, functions, relations, combinatorics, graphics, Boolean algebras, finite-state machines, Turing machines, unsolvability, computational complexity.
COT 3100H ECS-EECS 3(3,0)
Honors Introduction to Discrete Structures: PR: MAC 1105, MAC 1114. Logic, sets, functions,
relations, combinatorics, graphics, Boolean algebras, finite-state machines, Turing machines, unsolvability, computational complexity.

## COT 3960 ECS-EECS 0(1,0)

CS Foundation Exam: PR: COP 3502C AND COP 3100C. Foundation examina-tion for computer science majors. Required before taking COP 3530C, and COP 3402C and other 4000 level courses. Graded S/U.

COT 4110 ECS-EECS 3(3,0)
Tools for Algorithm Analysis: PR: COP 3530C and COT 3100. Tools from discrete and continuous mathematics for analyzing complexity of algorithms. Order notation use and manipulation.

COT 4210 ECS-EECS 3(3,0)
Discrete Computational Structures: PR: Admission to major or C.I., and COT 3100, MAC 3312. Review of discrete structures, introduction to automation theory, computational complexity, analysis of algorithms, computability theory, and formal languages.

## COT 4500 ECS-EECS 3(3,0)

Numerical Calculus: PR: MAC 2312 and COP 3502C. Numerical methods for finding roots of nonlinear equations, solutions of systems of linear equations, and ordinary differential equations.

## COT 4810 ECS-EECS 3(3,0)

Topics in Computer Science: PR: COP 3530C AND COP 3402C. A range of topics from the field of Computer science; application of oral and written communication skills; social, ethical and moral issues of computing.

## COT 5310 ECS-EECS 3(3,0)

Formal Languages and Automata Theory: PR: COP 4020 and COT 4210. Classes of formal grammars and their relation to automata, normal forms, closure properties, decision problems. LR(K) grammars.

## COT 5405 ECS-EECS 3(3,0)

Design and Analysis of Algorithms: PR: COT 4210 and COT 4110. Classification of algorithms, e.g., recursive, divide-and-conquer, greedy, etc. Data Structures and algorithm design and performance. Time and space complexity analysis.

## COT 5507 ECS-EECS 3(3,0)

Computational Methods/Applications: PR: COT 4500. Computational solution techniques for algebraic equations, ODE and PDE Models of applications selected from science, engineering, applied mathematics, and computer science.

COT 5510 ECS-EECS 3(3,0)
Computational Methods/Linear Systems: PR: COT 4500 and MAS 3113. Mathematical models for
linear systems, linear programming, the simplex method, integer and mixed-integer programming, introduction to nonlinear optimization and linearization.

## COT 5520 ECS-EECS 3(3,0)

Computational Geometry: CR: COT 5405. Geometric searching, point loca-tion, convex hulls, proximity problems, Vononoi diagrams, spanning trees, triangulation, intersection arrangement applications.

## CPO 3034 AS-POLS 3(3,0)

Politics of Developing Areas: Compara-tive analysis of theories, problems and politics of development in Third World nations.

CPO 3103 AS-POLS 3(3,0)
Comparative Politics: PR: POS 2041 or C.I. Government and politics in selected nations, with emphasis upon comparative analysis of contemporary problems, politics, political culture, behavior, and institutions.

## CPO 3104 AS-POLS 3(3,0)

Politics of Western Europe: PR: POS 2041 or C.I. An examination of the political and economic dynamics of Western Europe in the post-1945 era.

## CPO 3132 AS-POLS 3(3,0)

Canadian Studies: A multi-disciplinary approach to the study of Canada, its peo-ple, culture, government, and economy.

## CPO 3403 AS-POLS 3(3,0)

Politics of the Middle East: PR: POS 2041 or C.I. An examination of the dynamics of Middle East politics, including both regional and international dimensions.

CPO 3614 AS-POLS 3(3,0)
Politics of Eastern Europe: PR: POS 2041 or C.I. An examination of the political and economic dynamics of Eastern Europe in the post-1945 era.

CPO 4062 AS-POLS 3(3,0)
Comparative Judicial Process: Study of courts and judges in cross national context. Focus upon judicial recruitment, decisional patterns, and policy outcomes.

CPO 4074 AS-POLS 3(3,0)
Political Economy: PR: Junior standing or C.I. Interrelationship of political and economic phenomena of both advanced industrial societies and less developed countries.

CPO 4123 AS-POLS 3(3,0)
Government and Politics of Great Britain: A survey of British government, society, politics and
institutions, emphasizing parliamentary traditions. Britain's foreign policy and European role will be discussed.

## CPO 4303 AS-POLS 3(3,0)

Comparative Latin American Politics: Comparative analysis of politics, society and culture in Latin America and selected countries of the region.

## CPO 4643 AS-POLS 3(3,0)

Government and Politics of Russia: Study of the origins, institutions, and functioning of the Russian system, including the lingering influence of the old order on domestic and foreign policy.

## CPO 4710 AS-POLS 3(3,0)

Women in Comparative Politics: PR: Junior standing or C.I. A cross-national perspective on women and politics; how women behave politically in various political and economic contexts.

## CPO 5334 AS-POLS 3(3,0)

Contemporary Politics of the Mayan Region: PR: Senior, post-bac or graduate status. Analysis of issues affecting all peoples living in the contemporary Mayan region of southern Mexico, Belize, Guatemala, and El Salvador.

## CRT 4931 ECS-ENT 3(3,0)

Current Topics in Technology: PR: C.I. Study of recent state-of-the-art computer related topics from recognized electronics and computer oriented technical journals and texts. Requires written and verbal communication.

## CRW 1001 AS-ENG 3(3,0)

Imaginative Writing for Non-English Majors: An introduction to imaginative writing for non-English majors. Students will explore a variety of traditional and non-traditional forms of imaginative writing.

## CRW 2100 AS-ENG 3(3,0)

Fiction Writing: PR: CRW 3013. English majors in creative writing specialize in fiction writing; advanced group analysis and criticism of work produced by individual students.

## CRW 2300 AS-ENG 3(3,0)

Theory and Practice of Poetry Writing: PR: CRW 3013, English or English major, Junior standing, or C.I. English majors in creative writing specialize in the theory and practice of verse; group analysis and criticism.

CRW 3013 AS-ENG 3(3,0)
Creative Writing for English Majors: PR: ENC 1102 and English or English Education major, Junior standing, or C.I. The theory and techniques of literary genres; practice and critique of original writing by peers; critical reading of established authors.

Fiction Writing Workshop: PR: CRW 2100, CRW 3013 and Junior standing. An intermediate level fiction writing workshop for English majors; group analysis and criticism; close reading of contemporary fiction and fiction theory.

## CRW 3211 AS-ENG 3(3,0)

Creative Nonfiction Writing: PR: CRW 3013 and English or English Ed major or C.I. Writers present original nonfiction writing for class response and individual conferences. Close reading of key works of creative nonfiction with discussion of definitions of the genre.

CRW 3310 AS-ENG 3(3,0)
Poetry Writing Workshop: PR: CRW 3013, CRW 2300 and Junior standing. An intermediate level poetry workshop for English majors. Group analysis and criticism; close reading of contemporary poetry and poetic theory.

CRW 3311 AS-ENG 3(3,0)
Structure of Verse: PR: ENC 1102. Intensive study of the structural characteristics of English, poetry, metrical systems, rhyme, scansion, and poetic rhetorical devices.

## CRW 3410 AS-ENG 3(3,0)

Writing Scripts: PR: CRW 3013 or C.I. Theory and practice of writing scripts for film and TV.
CRW 3540 AS-ENG 3(3,0)
Literary Magazines: PR: CRW 3013. Examination of fiction and poetry trends in current literary magazines, identifying editorial policies in publication of contemporary literature.

## CRW 4114 AS-ENG 3(3,0)

History of Prose Style: PR: ENC 1102. A review of English prose style from 1611 to 1960.

## CRW 4122 AS-ENG 3(3,0)

Advanced Fiction Writing Workshop: PR: CRW 3120. Intensive writing practice in fiction. Peer critique and group discussion of original manuscripts. May be repeated once for credit.

## CRW 4123 AS-ENG 3(3,0)

Science Fiction Writing: PR: CRW 3013. Study of science fiction literature and writing of original science fiction stories. Workshop format with critique of writing assignments.

## CRW 4224 AS-ENG 3(3,0)

Advanced Nonfiction Workshop: PR: CRW 3013 and CRW 3211 (or equivalent and permission based on submission of manuscript). A study of advanced creative nonfiction, through intensive reading, writing, and workshop. The genre draws upon memory, observation, and techniques of fiction, poetry, and journalism.

Advanced Poetry Writing Workshop: PR: CRW 2300. Intensive writing practice in poetry. Peer critique and group discussion of original manuscripts. May be repeated once for credit.

CRW 5020 AS-ENG 3(3,0)
Graduate Writing Workshop: Student writers present their own work, receiving detailed analysis of its strengths and weaknesses from their fellow writers and from the teacher

CRW 5056 AS-ENG 3(3,0)
Form and Theory of Nonfiction: PR: Admission the M.A. program in English or Honors in the Major status. Studies in literary nonfiction from three perspec-tives: the critic, the practicing writer, and the theorist. Reading includes memoir, personal essay, criticism, and theory.

## CRW 5932 AS-ENG 3(2,1)

Teaching Creative Writing: PR: C.I. Creative writing practicum. May be repeated for credit.
CWR 3201 ECS-CEE 3(3,0)
Engineering Fluid Mechanics: CR: EGN 3343. Fundamentals of fluid mechanics with hydraulic applications: fluid properties, hydrostatics, dimensional analysis, energy, momentum, continuity, and steady flow.

## CWR 4101C ECS-CEE 3(2,2)

Hydrology: PR: STA 3032; CWR 3201. Hydrological cycle, probabilistic forecasting, rainfall excess meteorology, groundwater, storm-water runoff, flood routing and design applications.

## CWR 4203C ECS-CEE

Hydraulics: PR: CWR 3201 Continua-tion of CWR 3201 with emphasis on piping networks, pumps, and hydraulic systems. Laboratories with civil and environmental engineering applications.

## CWR 4812C ECS-CEE

Water Resources Design: PR: CWR 4101C; CWR 4203C. Project course for the design of storm water and sewer transmission systems using local and state regulations.

## CWR 5205 ECS-CEE 3(3,0)

Hydraulic Engineering: PR: CWR 4101C and CWR 4203C. Concepts of fluid mechanics and hydrodynamics applied to natural and man-made flow of intent to civil and environmental engineering.

## CWR 5545 ECS-CEE 3(3,0)

Water Resources Engineering: PR: CWR 4101C, CWR 4203C. Systems identification and solution to complex water allocation problems, and other hydraulic engineering designs and operations using economic analysis and operations research techniques.

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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

## DAA 2100 AS-THEA 3(2,2)

Theatre Modern Dance: PR: DAA 2200C \& DAA 2201C or C.I. Exploration of form, style, and technique in creative movement. Includes practical class work and history lectures.

## DAA 2200C AS-THEA 3(2,2)

Ballet I: PR: Restricted to B.F.A. Theatre performance/musical theatre majors. CR: TPP 3650, THE 1020, TPP 2110. Fundamentals of Classical Ballet; includes practical dance work as well as dance history lectures.

DAA 2201C AS-THEA $3(2,2)$
Ballet II: PR: TPP 2110, THE 1020, TPP 3650, DAA 2200C, B.F.A. musical thea-tre/performance major. An in-depth study of classical ballet technique, including principles, theory, and practice technique.

## DAA 2520 AS-THEA 3(2,2)

Theatre Tap Dance: Exploration of form, style, and technique in the basic fundamental movements of tap dance. May be repeated for credit.

Theatre Dance: PR: DAA 2200C, DAA 2201C or C.I. Specialized study of Theatre Dance styles of the 1920s to the 1980s. Demonstration and performance of students highlighting segments of

Broad-way shows. May be repeated for credit.

## DAA 2570C AS-THEA 3(2,2)

Theatre Jazz Dance: PR: DAA 2200C, TPP 2170C, B.F.A. performance/musical Theatre major. Introduction of the basic movements of American Jazz Dance, including practical class work and Jazz Dance history.

## DAA 2571C AS-THEA 3(2,2)

Theatre Jazz Dance II: PR: DAA 2570C, B.F.A. musical Theatre major. In-depth study of Jazz Dance as a major style of dance, using theory and practice in jazz technique.

## DAA 2640 AS-THEA 3(2,2)

Theatre Dance Choreography and Performance: PR: By audition. Students will create and present a piece choreo-graphed and performed by other dancers in concert. May be repeated for credit.

DAE 3370 ED-HSW 3(1,2)
Dance and Rhythmics: The development of skill proficiency and instructional strategies in rhythmics and dance techniques, and fundamental movement patterns for grades K-12.

DEP 2004 AS-PSYCH 3(3,0)
Developmental Psychology: PR: PSY 2013. The effects of genetic, psychological, maturational, and social factors on behavior throughout the life cycle.

DEP 3202 AS-PSYCH 3(3,0)
Psychology of Exceptional Children: PR: PSY 2013. Psychological problems of exceptional children, including diagnosis, associated emotional problems, effects of institutionalization, special class placement, attitudes, and appropriate intervention methods.

## DEP 3464 AS-PSYCH 3(3,0)

Psychology of Aging: PR: PSY 2013. An examination of basic psychological processes related to the aging process, with emphasis on the applied implications of changes in perceptual-motor, social emotional and cognitive-intellectual functioning.

## DEP 5057 AS-PSYCH 3(3,0)

Developmental Psychology: PR: Grad-uate admission or C.I. Psychological as-pects of development including intellec-tual, social, and personality factors.
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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

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## EAB 3703 AS-PSYCH 4(3,2)

Principles of Behavior Modification: PR: EXP 3404. An examination of the control of behavior through applications of principles and theories of learning. Examples are drawn from clinical and social psychology and from child rearing. Lecture/Practicum.

EAB 3704 AS-PSYCH 3(3,0)
Behavioral Self Control: PR: PSY 2013. Application of behavioral and biofeed-back techniques to self-regulation.

## EAB 5765 AS-PSYCH 3(3,0)

Applied Behavior Analysis with Children and Youth: PR: DEP 5057 and EXP 5445 or C.I. Advanced survey of principles, procedures, and techniques of applied behavior analysis, with special attention to applications with children and youth.

EAS 3010 ECS-MMAE 1(0,3)
Fundamentals of Aerospace Flight: PR: Sophomore standing. The history of human flight.
Introduction to atmospheric flight and space flight. Guest speakers/ field trips to aerospace facilities; laboratory experience.

## EAS 3101 ECS-MMAE 3(3,0)

Fundamentals of Aerodynamics: PR: EML 3701. Fundamentals of inviscid, incompressible flow
over aerodynamic shapes. Theories include potential flow concepts and classical methods as they apply to airfoils, finite wings, etc.

## EAS 3404C ECS-MMAE 3(2,3)

Discrete Control in Aerospace Vehicles: PR: EML 3312C. Discrete control aspects of Aerospace Vehicles. Digital controller, Design, State-Space Representation, Z-transform, system response.

## EAS 3530 ECS-MMAE 3(3,0)

Space Systems Concepts: PR: EAS 3010, PHY 2049, and MAP 2302. Physical and engineering aspects of current space flights. Space nuclear propulsion and power. Design of spacecraft for space environment. Communication with spacecraft. Space-borne instrumentation.

## EAS 3800C ECS-MMAE 3(2,3)

Aerospace Engineering Measurements: PR: EGN 3343 and EML 3601. Theory, calibration and use of instruments. Measurement techniques, data analysis, report writing. Laboratory topics elated to aerospace engineering.

## EAS 3810C ECS-MMAE 2(1,3)

Design of Aerospace Experiments: PR: EAS 3800C and EML 3701. Extension of EAS 3800C. Design of experiments in aeronautic/aerospace systems with emphasis on project team activity.

## EAS 4105 ECS-MMAE 3(3,0)

Flight Mechanics: PR: EAS 3101 and EML 3312C. Analysis of aircraft performance, static and dynamic stability and automatic control systems. Design for performance, handling, and stability.

## EAS 4134 ECS-MMAE 3(3,0)

High-Speed Aerodynamics: PR: EGN 3343, EML 3701, EAS 3800C. Continuation of EAS 3101. Normal and oblique shock waves, nozzles and wind tunnels, methods of analyzing compressible flow about airfoils, wings, and bodies. Viscous boundary layers and applications to the design process.

## EAS 4200 ECS-MMAE 3(3,0)

Flight Structures: PR: EML 3034 and EML 3601. Load analysis and fundamen-tal design of structural components of aircraft and space vehicles. Classical and modern computer techniques using fati-gue analysis and finite element methods.

## EAS 4210 ECS-MMAE 3(3,0)

Space Structural Dynamics: PR: EAS 4200 and EML 3312C. Analytical mechanics and linear system theory. Modern approach to control of lumped parameter systems. Review of space structure applications. Use of finite element methods.

## EAS 4300 ECS-MMAE 3(3,0)

Aerothermodynamics of Propulsion Systems: PR: EAS 4134 or EML 4703. Fundamental analysis and design considerations of propulsion systems. Turbojets, ramjets and rockets.

Spacecraft Attitude Dynamics: PR: EML 3312C. Kinematics and dynamics of rigid and multibody spacecraft rotational motion. Attitude control with momentum exchange actuators and thrusters.

## EAS 4505 ECS-MMAE 3(3,0)

Orbital Mechanics: PR: EGN 3321, MAP 2302. Two-body problem, orbital equations, orbital transfer, earth satellite operation.

## EAS 4700C ECS-MMAE 3(1,6)

Aerospace Design I: PR: EAS 3810C. Application of the design process to the team solution of a state-of-the-art problem. Airplanes and space vehicles, systems and devices are considered.

## EAS 4710C ECS-MMAE 3(1,6)

Aerospace Design II: PR: EAS 4700C. Continuation of the design process in the team building and testing of a prototype/model of an airplane, spacecraft, system or device.

## EAS 5123 ECS-MMAE 3(3,0)

Intermediate Aerodynamics: PR: EAS 4134; CR: EML 5060. Aerodynamic characteristics of airfoils, finite wings, waves, wing-body combinations, viscous flow and flow instabilities. Airfoil design.

## EAS 5157 ECS-MMAE 3(3,0)

V/Stol Aerodynamics and Performance: PR: EAS 4105; CR: EML 5060. Momentum theory, blade element theory, hover and forward flight, stability, aeroelasticity.

## EAS 5302 ECS-MMAE 3(3,0)

Direct Energy Conversion: PR: EML 3101 and EML 4142. Direct methods of energy conversion; particular emphasis on fuel cells, thermoelectrics, thermionics, solar energy, photovoltaics and magneto-hydrodynamics. Analysis and systems design.

## EAS 5315 ECS-MMAE 3(3,0)

Rocket Propulsion: PR: EAS 4134 or EML 4703. Analysis and performance of rocket motors; selection and thermo-chemistry of chemical propellants: liquid and solid propellant rockets.

## EAS 5407 ECS-MMAE 3(3,0)

Mechatronic Systems: PR: EML 3804C or EAS 3404C. Discrete control techniques for aerospace mechatronic systems. Controller design, test and evaluation applications.

ECM 5135 ECS-EECS 3(3,0)
Engineering Math Analysis I: PR: MAP 2302. Topics in advanced engineering mathematics, including systems of differential equations, phase plane, linear algebra, and vector differential calculus.

Microcomputer-based Monitoring and Control Systems: PR: EEL 3342; EEL 4767C or C.I. Machine language programming; software development aids; systems design; interfacing considerations.

ECO 2013 BA-ECON 3(3,0)
Principles of Economics I: An introduction to macroeconomics, including an overview of the market economy; national income, employment, and price level determination, stabilization policies, and international economics.

## ECO 2013H BA-ECON 3(3,0)

Honors Principles of Economics I: PR: Open to Honor Students only. Same as ECO 2013 with honors-level content.

ECO 2023 BA-ECON 3(3,0)
Principles of Economics II: The determination of prices in a market economy; their role in allocating consumer and producer goods and in distributing incomes, including attempts to improve market efficiency through public policy.

ECO 3101 BA-ECON 3(3,0)
Intermediate Price Theory: PR: ECO 2013 and ECO 2023. Theoretical study of the behavior of households, firms, and the markets in which they operate with issues and applications.

ECO 3203 BA-ECON 3(3,0)
Aggregate Economic Conditions Analysis: PR: ECO 2013 and ECO 2023. A study of the measurement, analysis, and control of aggregate economic activity.

ECO 3223 BA-ECON 3(3,0)
Money and Banking: PR: ECO 2013. Nature of money, commercial banking system, and monetary theory, and their relationship to the level of economic activity and activities of the Federal Reserve and U.S. Treasury.

ECO 3401 BA-ECON 3(3,0)
Quantitative Business Tools I: PR: ECO 2023, MAC 1105. Introduction to mathematical and statistical analysis of economics and business problems.

## ECO 3411 BA-ECON 3(3,0)

Quantitative Business Tools II: PR: Junior standing, ECO 2013, ECO 2023, and ECO 3401. The use of statistical methods as scientific tools in the analysis of economics and business problems.

ECO 3622 BA-ECON 3(3,0)
American Economic History: PR: ECO 2013 and 2023. Survey of the history of American economic development. Involves application of economic analytical tools to American history.

International Economics: PR: ECO 2013 and ECO 2023. Fundamental principles of international trade and foreign exchange, including the balance of payments and problems of foreign economic policy.

## ECO 3723 BA-ECON 3(3,0)

International Commercial Policy: PR: ECO 2013 and ECO 2023. Presents the fundamentals of international commercial policy, with special emphasis on U.S. trade policy since WW II.

## ECO 4302 BA-ECON 3(3,0)

Economics of the Environment: PR: ECO 2013, ECO 2023, or C.I. Provide fundamental insights into the interdepen-dence between energy use, environmental quality, and the economy at both the microeconomic and macroeconomic level.

## ECO 4303 BA-ECON 3(3,0)

History of Economic Thought: PR: ECO 2013 and ECO 2023. A study of the principal ideas of the major contributors to the development of economic thought.

## ECO 4412 BA-ECON 3(3,0)

Economic Statistics and Econometrics: PR: ECO 3411. Concepts and methods of developing, analyzing, and interpreting measures of economic activity, and business and economic change.

## ECO 4451 BA-ECON 3(3,0)

Research Methods in Economics: PR: ECO 3401 and ECO 3411. Provide skills in data collection and creation, data analysis, and research presentation.

## ECO 4504 BA-ECON 3(3,0)

Economics of the Public Sector: PR: ECO 2023. A study of fiscal institutions and decision-making, and how govern-ment budgetary policy (spending, taxing, borrowing, and debt management) affects the economy and its citizens.

ECO 4701 BA-ECON 3(3,0)
The Global Economy: PR: ECO 2013 and ECO 2023. Interdependent nature of global economy, and risks and benefits of international economic integration.

## ECO 4941 BA-ECON 3(3,0)

Economics Internship: PR: Economics or General Business major; consent of department chair. Supervised economics-related work experience in a pre-approved sponsoring organization. See department for information/application. Grade is "S" or "U".

## ECO 5005 BA-ECON 3(3,0)

Economic Concepts: PR: Acceptance into the graduate program. Introduction to micro and macro economic analysis.

Statistics for Business and Economics: PR: Acceptance into the graduate program and MAC 2233. Statistical theory and problems relating to business and economics, including time series and correlation theory, index number theory and statistical inference.

## ECP 3004 BA-ECON 3(3,0)

Seminar on Current Economic Topics: PR: ECO 2013 and ECO 2023. Current economic problems and issues. Emphasis on the social and ethical aspects of economic policy and the interrelatedness of economic and non-economic activities.

## ECP 3203 BA-ECON 3(3,0)

Contemporary Labor Economics: PR: ECO 2013 and ECO 2023. The analysis of labor problems and issues in a dynamic contemporary economy through the inter-action of the four major institutions: households, firms, government, and unions.

## ECP 3433 BA-ECON 3(3,0)

Transportation Economics: PR: ECO 2013 and ECO 2023. Economic characteristics and governmental regulation of public carriers. Consideration of competitive relations between modes of transportation and criteria for public investment in transportation and criteria of public investment in transportation systems.

## ECP 4403 BA-ECON 3(3,0)

Business, Government, and Industrial Organizations: PR: ECO 2013 and ECO 2023. A study of the performance of industries representative of various types of market structure and practices, as well as the public policies affecting these industries.

## ECP 4603 BA-ECON 3(3,0)

Urban and Regional Economic Prob-lems: PR: ECO 2013 and ECO 2023. Analysis of the location, organization and problems of urban and regional economic activities.

ECP 4703 BA-ECON 3(3,0)
Managerial Economics: PR: Junior standing; ACG 2071 or ACG 2023, ECO 2013, ECO 2023 and ECO 3411. The uses of economic analysis in economic decision-making and business policy formulation.

ECS 4003 BA-ECON 3(3,0)
Comparative Economic Systems: PR: ECO 2013 and ECO 2023. An analysis of the fundamental institutions of the American economic system with those of socialist and command economics. Emphasis is placed on performance criteria and economic modeling.

ECS 4013 BA-ECON 3(3,0)
Economic Development: PR: ECO 2013 and ECO 2023. The study of problems, theories, and issues of economic develop-ment with reference to the third world.

The Economies of the Pacific Rim: PR: ECO 2013 and ECO 2023. A study of the 'Asian Economic Miracle' examining the relationship between public policies, human resource development, and rapid shared growth.

## ECS 4210 BA-ECON 3(3,0)

The Chinese Economy: PR: ECO 2013, ECO 2023. Economic overview of contemporary China, and review of key issues facing the country

## ECS 4231 BA-ECON 3(3,0)

Japanese Prosperity: A Study of Human Resource Development: PR: Honors Students. ECO 2013 or ECO 2023 or ECO 2013H. A study of the rapid economic transformation of the Japanese economy with a special focus on the role of human resource development.

## ECS 4303 BA-ECON 3(3,0)

Economics of European Integration: PR: ECO 2013 and ECO 2023. Presents the development of the European Com-munity, with emphasis on the character-istics of the Single European Act (EC 92).

## ECS 4442H BA-ECON 3(3,0)

Honors Economic Development of Mexico and Central America: PR: ECO 2013 or ECO 2023. A study of the economies of Mexico and Central America under NAFTA
EDE 3942 ED-IP 3-6(0,16)

Internship I (Elementary): PR: EDG 4323, RED 3012, MAE 3810 and MAE 3811 or MAE 3112. Student teaching assignment in an elementary school under the supervision of a certified classroom teacher.

EDE 4943 ED-IP 7-12 $(0,35)$
Internship II(Elementary): PR: EDE 3942. Student teaching in an elementary school under the supervision of a certified classroom teacher. Scheduled concurrent seminars.

EDF 1075 ED-ED F 3(3,0)
Introduction to Educational Internship: Introduction to educational internship with selected partnership institutions.

EDF 2005 ED-ED F 3(3,0)
Introduction to Education: A survey course including an orientation to educa-tion careers, ethics, and the historical, philosophical and sociological founda-tions of education. This course has a field component.

$$
\text { EDF } 2283 \quad \text { ED-ED F } \quad 3(3,0)
$$

Introduction to Applications of Technology in Education: Classroom applications of instructional
media including computers.
EDF 3120 ED-ED F 3(3,0)
Observing Child Growth and Develop-ment: PR: Admission to the program. Provides a comprehensive introduction to the principles and basic theories of child growth and development from pre-natal development through age eight.

## EDF 3214 ED-ED F 3(3,0)

Early Childhood Education Learning Environment \& Strategies: PR: Admission to the program. Examines developmentally appropriate education materials, strategies, and environments for young children. Explores an integrated approach to curriculum planning and scheduling that emphasizes active learning.

## EDF 3601 ED-ED F 3(3,0)

Professional Ethics in Education: Pedagogical knowledge, awareness of educational process and the analytical skills necessary for responsible public involvement in educational policy making.
EDF 3690 ED-ED F 3(3,0)

Myths and Realities in Education: Myths and realities in educational research will be analyzed, and public policy will be analyzed and reviewed.

EDF 4214 ED-ED F 3(3,0)
Classroom Learning Principles: PR: EDF 2283, Junior standing or C.I. Principles of learning as applied to classroom teaching situations, with emphasis on student development, behavior, self-concept and motivation.

EDF 4282 ED-ED F 3(3,0)
Applications of Technology in Educa-tion: Classroom applications of instruc-tional media, including computers. Includes experiences with equipment, commercial and teacher-made media, and their uses.

## EDF 4603 ED-ED F 3(3,0)

Analysis of Critical Issues in Educa-tion: PR: EDF 4214 or C.I. Focuses on a critical analysis of contemporary educa-tional issues which directly impact schooling in a democracy

## EDF 5245 ED-ED F 3(3,0)

Preparation and Management of Classroom Instruction: PR: C.I. Study of strategies for instructional planning and classroom management that result in optimum learning.

EDF 5259 ED-ED F 3(3,0)
Classroom Management and Teaching: PR: C.I. Study of teaching behaviors and strategies for classroom management that result in a minimum of behavior problems and sound instructional planning.

Foundations of Leadership: PR: LEAD Scholars Program. Seminar for LEAD Scholars in the College of Education providing a foundation of leadership, scholarship, and service regarding disciplines in the college.

## EDG 2701 ED-ED F 3(3,0)

Teaching Diverse Populations: An introduction to cultural factors and their impact on education and life changes. Explores stereotyping, prejudice and changing classroom demographics. Includes directed field experience.

EDG 4323 ED-ED F 3(3,0)
Professional Teaching Practices: PR: EDF 2283, Junior Standing or C.I. Analysis of teaching strategies for K-12 settings, including higher order thinking, alternative assessment and adaption of instruction for diverse student populations.

## EDG 4324 ED-ED F 3(3,0)

Teaching Strategies II: PR: EDG 4323 and EDF 4214. Varieties of learning and teaching styles, appropriate methods of teaching thinking skills, problem solving, reading, and writing across the curriculum.

EDG 4941 ED-ED F 1-8(0,1-8)
Directed Field Experience: PR: Approv-al of Professional Laboratory. Field experience in an appropriate educational setting under the direction of a supervis-ing teacher and/or university supervisor.

## EDG 4948 ED-ED F 3(3,0)

Service Learning: PR: Junior standing or C.I. Involvement with community agencies and/or schools to gain a new perspective about the Central Florida community. May be repeated for credit.

EDG 5325 ED-ED F 3(3,0)
Techniques for the Developing Professional in Education: PR: C.I. Analysis, study, development, and use of techniques for enhanced instruction in the educational setting.

EDG 5337 ED-ED F 3(3,0)
Teaching Individuals, Small and Large Groups: PR: C.I. Study of teaching skills for effectively instructing individuals in various educational groups, with consideration of developmental and behavioral characteristics of students.

## EDG 5745 ED-ED F 3(3,0)

Teaching the Non-English Student: PR: C.I. Bilingual and non-linguistic instruction in curriculum areas in English as a second language.

EDG 5941 ED-ED F 2-8(0,11)

Clinical Practice: PR: Admission to STEP II, III or IV. Clinical Internship in an appropriate educational setting under the direction of a university supervisor or peer teacher.

## EDS 5356 ED-IP 3(2,1)

Supervision of Professional Laboratory Experiences: PR: C.I. Study of the undergraduate professional laboratory experiences program, with emphasis on the role and responsibilities of the Teacher Education Associate or Supervising Teacher.

EEC 2001 ED-IP 3(3,0)
Introduction to Early Childhood Education: An overview of early child-hood education and services for young children and their families. Includes historical roots, societal changes, program differentiation and future trends.

EEC 3268 ED-IP 3(3,0)
Play Development: Explores play development, facilitation, intervention and assessment. Designing play environments is emphasized.

EEC 3301 ED-IP 3(3,0)
Active Learning Teaching Strategies: Studies an integrated developmental-interactionist approach to curriculum planning and design. Equipment selection, room arrangements, daily schedules and active learning teaching strategies are emphasized.

EEC 3610 ED-IP 3(3,0)
Social and Emotional Development of Young Children: Provides an in-depth understanding of the social and emotional development of the young child. Examines the implication for curriculum development.

## EEC 3613 ED-IP 3(3,0)

Observation and Assessment of Young Children: PR: Admission to the program. Appropriate methods for diagnosing, assessing, and evaluating young children, including children with diverse cultural and ethnic backgrounds. Appropriate interventions, remediations, and enrichment.

EEC 3940 ED-IP 1-2(0,1-2)
Integration Internships: Field based placement in which the students will have supervised practice integrating course content areas.

EEC 4271 ED-IP 3(3,0)
Early Intervention: Provides an overview of development assessment, and intervention with at-risk and handicapped infants and toddlers.

EEC 4402 ED-IP 3(3,0)
Cultural and Family Systems: Explores the institution of family in its cultural context as a living dynamic system.

Infant/Toddler Care and Education: Provides the knowledge and skills that will enable the student to become a competent worker with very young children and their families.

EEC 4524 ED-IP 3(3,0)
Organization and Management in Early Childhood: Provides students with managerial and supervisory skills required to administer a developmentally appropriate early childhood program.

EEC 4603 ED-IP 3(3,0)
Guidance of Young Children: PR: EEC 3610. Provides students with techniques to guide the behavior of young children.

EEC 4731 ED-IP 3(3,0)
Health, Safety, and Nutrition for Young Children: Health and safety issues in early childhood (0-8). Protection from injury and infection; promotion of healthy development, good nutrition, and appropriate health and fitness habits.

EEC 4936 ED-IP 2(2,0)
Seminar in Early Childhood: Current trends, issues and advocacy in field of early childhood education. Includes guidance and clarification concerning student teaching.

EEC 4943 ED-IP 12(0,12)
Student Teaching: Provides opportunities for student teachers to use the knowledge and skills they acquired in a supervised public school setting.

EEC 5205 ED-IP 3(3,0)
Programs and Trends in Early Child-hood Education: PR: Regular Certificate or C.I. Philosophy, content, facilities, instructional materials, and activities appropriate for children ages 3 to 8 years; current research; issues and trends. Concurrent laboratory experiences.

## EEC 5206 ED-IP 3(3,0)

Organization of Instruction in Early Childhood Education: PR: Regular Certificate or C.I. Organization in instruction relating to language arts, social sciences, mathematics, health and physical education, problems relating to reading readiness and cognition (K-3). Concurrent laboratory experiences.

EEC 5208 ED-IP 3(3,0)
Creative Activities in Early Childhood: PR: Regular Certificate or C.I. Organiza-tion of instruction and methods for creative activities involving music, art, literature and educational toys, integration of activities, and basic skills curriculum (K-3). Concurrent laboratory experience.

EED 3250 ED-HSW 3(3,0)
Behavioral Issues of the Emotionally Handicapped: An introduction to functional schema of the
field to include behavior management techniques, theories, legal considerations, counseling skills, etiology, prevention and utilization of community services.

## EED 4011 ED-HSW 4(4,0)

Introduction to the Emotionally Disturbed: PR: Senior standing. Development and practice of appropriate cognitive, affective, and motor strategies for selected categories, levels, and degrees of severity of exceptional population.

EED 4210 ED-HSW 3(3,0)
Curriculum and Program Adaptation, E.H.: Development of highly specialized curriculum and identification, evaluation, modification, and use of curriculum materials and programs for students with emotional handicaps.

## EED 4243 ED-HSW 3(3,0)

Teaching the Emotionally Handicapped: Instructional strategies with emphasis on motivational strategies, development, implementation and evaluation of the IEP, modification of regular education instructional practices, crisis intervention and prevention.

EEL 3122C ECS-EECS 4(3,3)
Electrical Networks: PR: EGN 3373, PHY 2049. Analysis and design of linear circuits, transients, network function. Laplace transform.

EEL 3306 ECS-EECS 3(3,0)
Semiconductor Devices I: PR: EGN 3373. Electronic devices including p-n junctions, bipolar transistors, field effect transistors and device models.

EEL 3307C ECS-EECS 4(3,3)
Electronics I: PR: EEL 3306, EEL 3122C. Electronic devices. Analog electronic circuits. Amplifier analysis and design. Frequency effects.

## EEL 3342C ECS-EECS 3(2,3)

Introduction to Digital Circuits and Systems: PR: PHY 2049 or C.I. Switching theory and devices. Combinational and sequential logic. Logic design using standard components such as ROM, arithmetic units, multiplexers, registers, and counters.

## EEL 3470 ECS-EECS 3(3,0)

Electromagnetic Fields: PR: EEL 3122 and MAP 2302. Introduction to electric and magnet fields and electromagnetic waves.

## EEL 3552C ECS-EECS 4(3,3)

Signal Analysis \& Communications: PR: EEL 3122. Signal theory. Fourier series and integral. Design of modulation systems.

Linear Control Systems: PR: EEL 3122C. Control theory. Transfer function modeling. Nyquist criteria, root locus, Bode plots. Design of lead and lag compensation.

## EEL 3801C ECS-EECS 3(2,3)

Introduction to Computer Engineer-ing: PR: EGN 3210 or equivalent. CR: EEL 3342C. Introduction to the field of computer engineering. Engineering applications of advanced C-language concepts. C++ topics and applications. Basic computer organization. Assembly language programming

EEL 4140C ECS-EECS 4(3,3)
Analog Filter Design: PR: EEL 3307C, EEL 3122. Passive and active analog filter design. May be repeated for credit.

## EEL 4205 ECS-EECS 3(3,0)

Electric Machinery: PR: EEL 3122, EEL 3470. Fundamentals of DC and AC electric machines.
EEL 4216 ECS-EECS 3(3,0)
Fundamentals of Electric Power Systems: PR: EEL 3122 or C.I. Three-phase power representation and analysis, transformers, per unit system, symmetrical components, faults, transmission lines.

EEL 4309C ECS-EECS 4(3,3)
Electronics II: PR: EEL 3307C, EEL 3342C. Ideal Op-Amps and applications. Introduction to Logic Circuits; Bipolar, MOS and CMOS families; Flip-flops and memory cells, comparators and timing circuits: A/D and D/A converters.

## EEL 4314 ECS-EECS 3(3,0)

Device Electronics for Integrated Circuits: PR: EEL 3306. P.N. Junctions, Bipolar Transistor Analysis, Metal Semiconductor contacts, MOS Systems MOSFET Analysis and Limitations.

## EEL 4436C ECS-EECS 4(3,3)

Microwave Engineering: PR: EEL 3470. Transmission line theory, Smith charts, S-parameters, simple impedance matching circuits, wave guides, resonators, basic microwave measurements. May be repeated for credit.

## EEL 4440 ECS-EECS 3(3,0)

Optical Engineering: PR: EEL 3470, EEL 3552C or C.I. Lens systems, aberrations, sources, radiometry, detectors, physical optics, interferometric devices, applications to engineering design problems.

## EEL 4512C ECS-EECS 4(3,3)

Communication Systems: PR: STA 3032, EEL 3552C and EEL 3307C. Information transmission, modulation, and noise; design and comparison systems in the presence of noise.

Digital Communication Systems: PR: EEL 3552. Sampling and quantization, PAM, PWM, PTM, PCM, and Delta Modulation ASK, FSK, PSK, MPSK, introduction to coding.

## EEL 4518 ECS-EECS 3(3,0)

Satellite Communications: PR: EEL 3552C. The principles of satellite com-munications, including communications satellites, Earth stations, link analysis, FDMA and TDMA. May be repeated for credit.

## EEL 4612 ECS-EECS 3(3,0)

Introduction to Modern and Robust Control: PR: EEL 3657. Classical control theory including differential equations and Laplace transform techniques, stability analysis, and classical frequency domain design.

## EEL 4635C ECS-EECS 4(3,3)

Computer Control Systems: PR: EEL 3657. Discrete-time systems, the z-transform, and single loop computer control systems. Digital simulation in the analysis and design of processes with embedded computers. No graduate credit for both EEL 5630 and this course.

## EEL 4750 ECS-EECS 3(3,0)

Digital Signal Processing Fundamentals: PR: EEL 3552C. Study of discrete-time signals and systems, Z-transform, DFT introduction to digital filter design.

EEL 4765C ECS-EECS 4(3,3)
Embedded Computer Systems: PR: EEL 4768C, EEL 4851, EEL 4635. Computer Applications in Systems role, sensor and actuator interfacing. Design projects, including problem statements and specifications, design methodology, implementation, testing, and documentation.

## EEL 4767C ECS-EECS 4(3,3)

Computer System Design I: PR: EEL 3342C and EEL 3801C. Basic computer organization and design. Computer per-formance metrics, introduction to proces-sor, memory and I/O organization and design. Assembly language programming and microprocessor based design.

EEL 4768C ECS-EECS 4(3,3)
Computer System Design II: PR: EEL 4767C. Continuation of EEL 4767C. Control and datapath design using a hardware description language, microprogrammed architectures, instruction and arithmetic pipelines, cache and virtual memory and RISC.

EEL 4781 ECS-EECS 3(3,0)
Computer Communication Networks: PR: EEL 4767C and STA 3032. Network models. Media access protocols. Data link control. Routing and flow control. Internetworking. Current architectures and protocols: OSI, ethernet, token, ring, FDDI, HSLC, X.25, etc.

## EEL 4783C ECS-EECS 3(2,3)

Computer-Aided Engineering Design: PR: ECM 4884 and EEL 4768C or C.I. Review of currently available CAE tools for digital hardware and software design applications.

## EEL 4791 ECS-EECS 3(2,4)

Telemetry and Space Computer Systems: PR: EEL 3552 AND EEL 3801, EEL 3657, EEL 3307, EEL 3470. Telemetry and computer sub-systems are discussed as they are implemented in the space-launch system "inertial upper stages"

EEL 4832 ECS-EECS 3(3,0)
Engineering Applications of Computer Methods: PR: MAP 2302, STA 3032, EGN 3420. Engineering applications of numerical methods, including solution of differential equations, simulation, optimization, and multidimensional root-finding, integration and series approximations.

## EEL 4851C ECS-EECS 4(3,3)

Engineering Data Structures: PR: EEL 33801C. Design of data structures and algorithms, with emphasis on perfor-mance analysis, memory organization, stacks, queues, linked lists, trees, graphs, searches, and sorts. Introduction to object-oriented structures.

## EEL 4872 ECS-EECS 3(3,0)

Engineering Applications of Intelligent Systems: PR: EEL 4851C. Intelligent models, computer vision, natural language understanding, pattern analysis, knowledge-based systems, symbolic pro-gramming, and advanced architectures.

## EEL 4882 ECS-EECS 3(3,0)

Engineering Systems Software: PR: EEL 4851 and EEL 4767. Introduction to operating systems concepts and facilities for engineering applications, including multiprogramming, resource allocation and management, systems utilities, and operating system implementation.

## EEL 4884C ECS-EECS 4(3,3)

Engineering Software Design: PR: EEL 4851C. Software systems development life cycle, function and object-oriented methodologies, CASE; Analysis, design, and development of a large software project.

## EEL 4890 ECS-EECS 3(3,0)

Continuous System Simulation: PR: EGN 3420, EEL 3657. Continuous systems. Numerical integration algorithms including single step and multistep methods. Use of a continuous simulation program.

EEL 4914 ECS-EECS 3(2,1)
Senior Design I: PR: EEL 3307, EEL 3657, and EEL 3552. Applications of engineering design to realistic and meaningful problems. Constraints such as economic factors, safety, reliability, aesthetics, ethics, social impact and engineering organizations are considered.

Senior Design II: PR: EEL 4012. Execution of electrical and computer engineering project including complete project design review, construction, testing and demonstration. Emphasis on design, prototyping, cost, functionality, presentation, team effort and final report

EEL 5173 ECS-EECS 3(3,0)
Linear Systems Theory: PR: EEL 3657. Models and properties of linear systems, transformation, controllability and observability, control and observer designs, MFD, and realization theory.

## EEL 5245C ECS-EECS 3(2,1)

Power Electronics: PR: EEL 4309. Principles of power electronics, power semiconductor devices, inverter topolo-gies, switch-mode and resonant dc-to-dc converters, cyclo-converters, applications.

## EEL 5332C ECS-EECS 3(2,1)

Thin Film Technology: PR: EEL 3306 or equivalent. Presents the various thin film deposition techniques for the fabrication of microelectronic, semiconductor, and optical devices.

## EEL 5352 ECS-EECS 3(3,0)

Semiconductor Material and Device Characterization: PR: EEL 3306 or C.I. Semiconductor material characterization resistivity, mobility, doping carrier life-time, device properties, threshold voltage, interface charge of MOS devices, optical and surface characterization of films.

## EEL 5353 ECS-EECS 3(3,0)

Semiconductor Device Modeling and Simulation: PR: EEL 3307. Large signal and small signal model development for semiconductor diodes, BJTs, and MOSFETs. Parameter extraction, numerical algorithm, and SPICE simulation are included.

## EEL 5355C ECS-EECS 4(3,3)

Fabrication of Solid-State Devices: PR: EEL 3306. Fabrication of microelectronic devices, processing technology, ion implantation and diffusion, device design, and layout. Laboratory includes device processing technology.

EEL 5357 ECS-EECS 3(3,0)
CMOS Analog and Digital IC Design: PR: EEL 3306 and EEL 4309. The objective of this course is to present the principles and techniques of the design of analog and digital circuits that are to be implemented in a CMOS technology.

## EEL 5370 ECS-EECS 3(3,0)

Operational Amplifiers: PR: EEL 4309C. Ideal and non-ideal Op-Amps. Linear applications. Active RC and switched-capacitor filters. Non-linear and other functional circuits. Frequency stability and compensation of Op-Amps.

EEL 5432 ECS-EECS 3(3,0)
Satellite Remote Sensing: PR: EEL 3470 or PHY 4324. Fundamentals of satellite remote sensing,
orbits and geometry, radiative transfer theory, microwave and infrared sensing techniques, ocean, ice and atmosphere geophysical measurements.

## EEL 5434 ECS-EECS 3(3,0)

Microwave Circuits and Devices: PR: EEL 4436 or EEL 5555C. Planar transmission lines; passive microwave circuits; active circuit design using Gunn, IMPATT, FETS, RTDS, etc.: microwave integrated circuits.

## EEL 5462C ECS-EECS 3(3,1)

Antenna Analysis and Design: PR: EEL 3470 or equivalent. Fundamentals of antennas; dipoles, loops, arrays, apertures, and horns. Analysis and design of various antennas.

EEL 5513 ECS-EECS 3(3,0)
Digital Signal Processing Applications: PR: EEL 4750. The design and practical consideration for implementing Digital Signal Processing Algorithms including Fast Fourier Transform techniques, and some useful applications.

## EEL 5517 ECS-EECS 3(3,0)

Surface Acoustic Wave Devices and Systems: PR: EEL 3552C. Course discusses SAW technology which includes the physical phenomenon, transducer design and synthesis, filter design and performance parameters. Actual devices and communication systems are presented.

EEL 5542 ECS-EECS 3(3,0)
Random Processes I: PR: EEL 3552C and STA 3032. Elements of probability theory, random variables, and stochastic processes.

EEL 5547 ECS-EECS 3(3,0)
Introduction to Radar Systems: PR: EEL 3552C. Introduction to Pulse and CW Radar Systems. Chirp Radar Systems. Tracking Radar. Noise in Radar Systems.

## EEL 5555C ECS-EECS 3(2,2)

RF and Microwave Communications: RF and microwave active circuits microstrip amplifier, oscillator, and mixer design and fabrication. Receiver design, noise, familiarization with network and spectrum analyzers

## EEL 5630 ECS-EECS 3(3,0)

Digital Control Systems: PR: EEL 3657. Real-time digital control system analysis and design, Z-transforms, sampling and reconstruction, time and frequency response, stability analysis, digital controller design.

## EEL 5704 ECS-EECS 3(3,0)

Computer Aided Logical Design: PR: EEL 4767C. Design, analysis and synthesis of sequential logic circuits and systems. Data path and controller design using a hardware description language.

High Performance Computer Architec-ture: PR: EEL 4767. Engineering of high performance computer systems. Memory, processor and control sub-systems design tradeoffs. Virtual and cache memory. Pipelining, vector computing.

## EEL 5741C ECS-EECS 3(2,3)

Microcomputer-based Monitoring and Control Systems: PR: EEL 3342, EEL 4767C, or C.I. Machine language programming; software development aids; systems design; interfacing considerations.

## EEL 5762 ECS-EECS 3(3,0)

Performance Analysis of Computer and Communication Systems: PR: EEL 4767C, STA 3032. Stochastic modeling and discrete-event simulation; Markov chains; networks of queues; SemiMarkov models; application to multiprocessor systems, switching and multi-user communications.

## EEL 5771C ECS-EECS 3(2,3)

Engineering Applications of Computer Graphics: PR: EGN 3420 or C.I. Computer graphics in engineering applications. Laboratory assignments.

## EEL 5820 ECS-EECS 3(3,0)

Image Processing: PR: MAP 2302, EGN 3420, EEL 4750 or C.I. Two-dimensional signal processing techniques; pictorial image representation; spatial filtering; image enhancement and encoding; segmentation and feature extraction; introduction to image understanding techniques.

## EEL 5825 ECS-EECS 3(3,0)

Pattern Recognition: PR: MAP 2302, EGN 3420. Graph-theoretic and syntactic methods of pattern analysis. Decision functions; optimum decision criteria; training algorithms; feature extraction; unsupervised learning; data reduction and potential functions.

## EEL 5860 ECS-EECS 3(3,0)

Software Requirements Engineering: PR: Graduate standing or C.I. Excellent oral and written communication skills. Excellent problem solving skills. In-depth study of software requirements engineering within a process centered framework. methods for requirements elicitation, analysis, description, and validation. Formal and informal specification.

## EEL 5874 ECS-EECS 3(3,0)

Expert Systems and Knowledge Engineering: PR: EEL 4872 or C.I. Introduction to expert systems in engineering. Expert systems tools and interviewing techniques. This course is hands-on and project oriented.

## EEL 5881 ECS-EECS 3(3,0)

Software Engineering I: PR: EGN 3420, EEL 4851 or C.I. Design, implementa-tion, and testing of computer software for Engineering applications.

Continuous System Simulation I: PR: EEL 3657 or C.I. Use of state-space techniques, numerical integration, and CSSL programs. Laboratory assignments.

## EES 3004 ECS-EECS 3(3,0)

Environmental systems: PR: One semester of college level science, prefer Chemistry or Biology. A technical literacy course in environmental systems for wastewater, drinking water, groundwater, soil, and air treatment for non-engineering majors.

## EES 4111C ECS-CEE 3(2,3)

Biological Process Control: PR: EES 4202C or C.I. and CR: ENV 4561. Engineering design, measurements and analysis of biological systems in environmental engineering for water management, bio-energy products, wastewater treatment, and others.

## EES 4202C ECS-CEE 3(2,3)

Chemical Process Control: PR: EGN 3704. Engineering design, measurements, and analysis of chemical systems in environmental engineering to control treatment processes such as softening, coagulation, disinfection, scrubbing, neutralization, and others.

## EES 5415C ECS-CEE 3(2,3)

Potable Water Treatment: PR: EES 4202C and 4111C. Engineering application of potable water chemistry involving coagulation, softening, filtration, corrosion, disinfection quality and drinking water.

## EES 5605 ECS-CEE 3(3,0)

Outdoor Noise Control: PR: C.I. Community noise evaluation and control, legislative standards, instrumentation and measurement, abatement methods, and noise modeling.

## EET 2025C ECS-ENT 4(3,2)

Electrical Circuits: PR: DC Circuits or EET 3085C, and MAC 1114, or C.I. Frequency domain and steady state analysis of electric circuits: RCL circuits, timed circuits, resonance and "Q," filters, magnetically coupled circuits, transformers, 3-phase circuits, power relationships.

## EET 3039 ECS-EECS 3(3,0)

Circuit Analysis: PR: PHY 2053C. Study of electrical networks. Circuit anal-ysis techniques are presented, including DC and steady state analysis. Power calculations, power distribution and dissipation are covered with examples relating to cables, connections, and buses. Not open to EE and CpE majors.

EET 3085C ECS-ENT 4(3,2)
Electricity and Electronics: PR: MAC 1105 and MAC 1114. AC and DC cir-cuits. Basic theorems and circuit analysis techniques. Instruments and measure-ments. Introduction to integrated circuits.

Electronic Devices and Circuits: PR: DC \& AC Circuits; MAC 1114. Theory, characteristics, operational parameters, circuits and applications of solid state electronic devices. Bipolar and field effect transistors, multistage amplifiers, power amplifiers.

## EET 3325 ECS-EECS 3(3,0)

Information Theory: PR: MAC 2147. Fundamentals of information theory and communication systems. Topics include; the definition of information, band width and frequency spectrum, systems design, filters, modulations, demodulators, antennas, and wireless communications. Not open to EE or CpE majors.

EET 3716 ECS-ENT 3(3,0)
Network Analysis: PR: DC/AC circuits and Calculus I. Transient analysis of first and second-order circuits, circuit analysis using LaPlace Transforms. Transform function, frequency response analysis, and Bode plots.

EET 4158C ECS-ENT 3(2,2)
Linear Integrated Circuits: PR: EET 3716, or Consent of Coordinator. Applications of operational amplifiers, comparators, phase-locked loops, timers, regulators, other integrated circuits. Includes amplifiers, active filters, oscillators, differentiators and integrators.

## EET 4329C ECS-ENT 4(3,2)

Communications Systems: PR: EET 4158C. Electronics Devices Principles and interrelationships of communication system components and circuits. Signals, noise, modulation, demodulation, bandwidth requirements. Transmitters and receivers.

EET 4339C ECS-ENT 3(2,2)
Antennas and Propagation: PR: EET 4329C. Transmission lines, impedance matching, use of Smith Chart. Antenna principles. Beamwidth, gain, directivity, effects of height, path-loss. System design.

## EET 4349C ECS-ENT 3(2,2)

Electronic Communications II: PR: EET 4329C. Basic information theory, pulse and digital concepts, multiplexing,
radar principles, TV systems. Technology of radiation and propagation. Fiber optics.

## EET 4359C ECS-ENT 4(3,2)

Digital Communications Systems: PR: EET 4158. Theory and application of techniques utilized in digital data transmission and reception

## EET 4389C ECS-ENT 3(2,2)

Satellite Communication Systems: PR: EET 4329C. System analysis and design, Orbits, launching methods. Baseband signals and modulation. Link design, synchronization techniques. Interference,
noise, access. Antennas, spectrum utilization.
EET 4548 ECS-ENT 3(3,0)
Power Systems: PR: EET 3085 and EET 2025. Analysis of electrical power systems and energy conversion. 3-phase load, per-unit quantities, circuit constants, rotating machines, 3-phase transformers, transmission lines, power flow, stability and fault calculations.

## EET 4732C ECS-ENT 4(3,2)

Feedback Control Systems: PR: EET 3716, Physics I and Calculus I. Modeling and analysis of networks and control systems. Stability and compensation considerations, using root locus, Nichols chart and Bode plots. Simulation techniques, system components.

EET 4915C ECS-ENT 3(1,4)
Senior Design Project: PR: Electronics Engineering Technology senior entering anticipated graduation semester or C.I. Individual or group project involving project definition planning, development, test and evaluation. Progress reports, final oral presentation and final written report required.

## EEX 2010 ED-HSW 3(3,0)

Introduction to Special Education: Orientation to the education of children and adolescents with special needs in the schools. The course includes characteris-tics, trends, mainstreaming, and other issues.

## EEX 3102 ED-HSW 3(3,0)

Language Development and Communication Disorders: PR: Junior standing. Interdisciplinary approach to language development, identification and remediation of communication and language disorders.
EEX 3221 ED-HSW 3(3,0)

Assessment of Exceptional Students: Formal and informal assessment techniques for screening, placement, program planning, program evaluation, and monitoring of progress of exceptional students.

EEX 3241 ED-HSW 3(3,0)
Methods for Academic Skills for Exceptional Students: PR: EEX 2010, EEX 3864. Teaching strategies, instructional materials, and monitoring techniques for children and adolescents with special needs. Must be taken before Internship I.

## EEX 3243 ED-HSW 3(3,1)

Techniques for Exceptional Adoles-cents-Adults: CR: EEX 3241. A study of strategies, basic and functional content, career and vocational educational, and transition planning for adolescents and adults with special needs.

Young Children With Special Needs: Provides an overview of the unique field of early childhood special education, its mission, and approaches to helping young children and their families.

## EEX 3754 ED-HSW 3(3,0)

Parents as Educators: Develop parental awareness of their role in child develop-ment and school success. Attention given to social context of parenting and parents as advocates for children.

## EEX 3864 ED-HSW 6(0,16)

Internship I: PR: EDG 4323, RED 3012, EEX 2010, EEX 3241. Satisfactory completion of the portfolio. Internship assignment 2 days a week under a certified exceptional education teacher. Half in elementary, half in secondary.

EEX 4003 ED-HSW 3(3,0)
Teaching Exceptional Students: PR: EDG 4323. Development and practice of effective teaching and management strategies for elementary regular classroom teachers to use in working with mild disabilities.

EEX 4243 ED-HSW 12(0,35)
Internship II: PR: Completion of spcialization. Satisfactory completion of the partfolio. Full day student teaching under a certified special education teacher in an elementary or secondary school. May be repeated for credit.
EEX 4601 ED-HSW 3(3,0)

Introduction to Behavior Management: Study of management techniques based on applied behavioral analysis principles for modifying inappropriate behaviors and maintaining appropriate behaviors of exceptional students.

## EEX 4753 ED-HSW 3(3,0)

Parent/professional Collaboration: The special educator's role in working with families, regular educators, and other professionals in a collaborative relationship.

## EEX 5051 ED-HSW 3(3,0)

Exceptional Children in the Schools: PR: Senior standing or C.I. Characteristics, definitions, educational problems, and appropriate educational programs for the exceptional children in schools.

## EEX 5702 ED-HSW 3(3,0)

Planning Curriculum for Pre-kindergarten Children with Disabilities: Focus on curriculum planning; developmentally appropriate practices and implementation of individualized instruction for pre-kindergarten children with disabilities.

## EEX 5750 ED-HSW 3(3,0)

Communication with Parents and Agencies: Presentation of methods of interacting with community agencies, supporting and collaborating with fami-lies, developing a case management sys-tem, and
facilitating program transition.
EGC 5036 ED-HSW 3(3,0)
Guiding Human Relationships: PR: Senior standing or basic teacher certificate. Human relationship skills which will enhance intra- and interpersonal relation skills in classrooms.

## EGN 1006C ECS-MMAE $\mathbf{1}(1,1)$

Introduction to the Engineering Profession: PR: New students status or C.I. Overview of academic and professional requirements in various engineering disciplines.

## EGN 1036C ECS-MMAE 2(1,1)

Foundations of Leadership: PR: LEAD Scholars Program. Seminar for LEAD Scholars in the College of Engineering \& Computer Science providing a foundation of leadership, scholarship, and service regarding disciplines in the college.

## EGN 1111C ECS-MMAE 2(1,3)

Engineering Computer Graphics: PR: Trigonometry. Spatial visualization, sketching and graphical presentation as a form of computerized engineering communication. Engineering drawing, descriptive geometry and graphical solution techniques using computer software.

## EGN 1360 ECS-MMAE 3(3,0)

Materials in Today's World: A survey of the properties, manufacture, and uses of metals, ceramics, and polymers in today's world with emphasis on modern developments and new materials.

## EGN 2920C ECS-IEMS 2(1,1)

LEAD Colloquium: PR: C.I., LEAD Scholars Program, Must have completed at least two of the following with a grade of B or better, IDS 1040C, GEB 1091C, EGN 1036C, EDG 1005C or HSC 1931C. Provides experiential leadership experience in an appropriate leadership setting under the direction of a university supervisor with the LEAD Scholars Program. May be repeated for credit.

## EGN 3210 ECS-EECS 3(3,0)

Engineering Analysis and Computa-tion: PR: MAC 2311. Engineering analysis and computation with structured constructs. Subscripted variables, subprograms, input/output. Batch processing and time sharing. Engineering applications will be emphasized.

## EGN 3310 ECS-CEE 3(3,0)

Engineering Analysis-Statics: PR: PHY 2048; CR: MAC 2312. Fundamental concepts of mechanics, including resultants of force systems, free-body diagrams, equilibrium of rigid bodies, and analyses of structures.

## EGN 3310H ECS-CEE 3(3,0)

Engineering Analysis-Statics (Honors): PR: PHY 2048; CR: MAC 2312 or MAC 2282. (Honors section for EGN 3310) Advanced treatment of material and additional topics. More challenging
assignments. Project work. May be repeated for credit.
EGN 3321 ECS-MMAE 3(3,0)
Engineering Analysis-Dynamics: PR: EGN 3310; CR: MAC 2313. Kinematics and kinetics of particles and rigid bodies; mass and acceleration, work and energy, impulse and momentum.

EGN 3331 ECS-CEE 3(3,0)
Mechanics of Materials: PR: EGN 3310; CR: MAP 2302. Concepts of stress, strain, strength, deflection of axial force members, shafts in torsion, beams in flexure; combined stress; stability of columns, and design of simple elements.

## EGN 3343 ECS-MMAE 3(3,0)

Thermodynamics: PR: MAP 2302, CR: EGN 3321. Work, heat, and energy transformations. Relation of properties. Laws, concepts, and modes of analysis common to all applications of thermodynamics in engineering.

## EGN 3358 ECS-MMAE 3(3,0)

Thermo-Fluids-Heat Transfer: PR: EGN 3310, MAP 2302. Introduction to first and second laws of thermodynamics, continuum fluid mechanics, and heat transfer for electrical, industrial, and computer engineering majors.

## EGN 3365 ECS-MMAE 3(3,0)

Structure and Properties of Materials: PR: CHS 1440 and MAC 2312. Atomic structure and bonding, crystal structure and imperfections, solidification, phase transformations, phase diagrams, heat treatment, mechanical \& electrical properties, materials characterization techniques.

EGN 3373 ECS-EECS 4(4,0)
Principles of Electrical Engineering: PR: PHY 2049; CR: MAP 2302. Fundamental laws of electrical circuits and circuit analysis; fundamentals of electronics and power systems.

EGN 3420 ECS-EECS 3(3,0)
Engineering Analysis: PR: High-level language or equivalent (FORTRAN preferred); MAC 2312. Engineering analysis and computation using FORTRAN; engineering applications of numerical methods including curve fitting, matrix operations, root finding, integration and plotting.

## EGN 3613 ECS-IEMS 2(2,0)

Engineering Economic Analysis: PR: ECO 2013. Economic evaluation of engineering alternatives and design. Time value of money and economic impact of taxes, risk, depreciation.

## EGN 3704 ECS-CEE 2(2,0)

Engineering and the Environment: PR: CHS 1440 and MAC 2312. Process engineering for air, energy, water, and land environment and the role of engin-eering in control of these environments.

Systems Modeling: PR: CGS 1060 or equivalent. Representation of man/ machine systems through analytic and computer-based models. Case studies in the analysis and improvement of systems in industry, education, and government.

## EGN 4033 ECS-ECS 3(3,0)

Technology and Social Change: PR: History/Humanities Sequence or C.I. Review of existing theories of social change, analysis of the role of technology as related to social change, and study of contemporary events in technology and their possible impact on society.

## EGN 4624 ECS-IEMS 3(3,0)

Engineering Administration: PR: Senior standing. Engineering organization and administration; delegation of author-ity and responsibility; effective use of resources; project management; R and D planning; ethics in professional practice.

## EGN 4706C ECS-MMAE $3(2,4)$

Small Satellite Payloads and Integra-tion: PR: EML 3303 OR EAS 3800 OR EEL 3801 OR ESI 4523. Evaluate overall impact of integration and design concepts on various satellite component subsys-tems and their payloads into a small satellite system design leading to a final configuration.

## EGN 4707C ECS-ECS 3(2,4)

Processing Space-Launch Systems : PR: For ECE: EEL 3552 or EEL 4767; For IEMS: ESI 4523; For MAE: EAS 3800. Assembly and test techniques for preparing and check-out of the space-launch system "Inertial Upper Stage." May be repeated for credit.

EGN 4813 ECS-ENT 3(3,0)
Science in History: Examination of the reciprocal relations of science and society from ancient to recent times.

EGN 4814 ECS-ENT 3(3,0)
Technology in History: PR: History/ Humanities sequence or C.I. Important developments in engineering and technology and their effect on society and our socio-economic processes.

EGN 4816 ECS-ENT 3(3,0)
Technology Analysis: PR: C.I. Student is introduced to scientific and analytical methods of decision making. Basic
modeling, statistical methods and computer usage.
EGN 4818 ECS-ENT 3(3,0)
Technology in North America: PR: History/Humanities sequence or C.I. Periods of significant technological change in North America, with emphasis on 19th and early 20th-century developments.

EGN 4823 ECS-ENT $\mathbf{3}(3,0)$
Topics in Urban Development: Production, distribution, and consumption of various commodities.

Engineering rela-tionships to distribution, internal struc-ture, function of urban developments, interrelationships of engineering, social, economic, and cultural phenomena.

## EGN 4824 ECS-ENT 3(3,0)

Energy and Society: Investigation of available energy forms; energy resources versus requirements in an increasingly complex technological society; possible solutions and future predictions.

## EGN 4825 ECS-ENT 3(3,0)

Environment and Society: PR: C.I. Environmental factors of importance to people's interaction with the environment; engineering and non-engineering measures to insure improvement and maintenance of environmental quality. Not for engineering students.

EGN 4830 ECS-ENT 3(3,0)
Telecommunications: Telecommunications and its role in contemporary local, national, and international society.

EGN 4832 ECS-ENT 3(3,0)
Computers, Cybernetics and Society: The effects of computers and the cybernetic revolution of the individual and society. Effects of positive and negative feedback on biological, technological and social systems. Computers and their interactions with the human system.

## EGN 4844 ECS-ENT $\mathbf{3}(3,0)$

Man and Machine: The influence and interrelationship of invention and technical progress on the evolution of social forms and institutions.

## EGN 4931H ECS-ECS 3(3,0)

Engineering Honors Seminar: PR: Senior standing and C.I. Introduces a select group of students in engineering or other fields of science to the methodology commonly employed in research. Students will carry out independent research which will prepare them for graduate study.

## EGN 4933 ECS-ECS 1(1,0)

Professional Engineering Practice: PR: Senior standing or C.I. Seminars dealing with current and future global issues within the engineering profession.

## EGN 5035 ECS-ECS 3(3,0)

Topics in Technological Development: PR: C.I. Selected topics in the technological development of western civilization including the weight-driven clock, steam engine, electric light, etc.

## EGN 5720 ECS-IEMS 3(2,3)

Internal Combustion Engine Analysis and Optimization: PR: EGN 3343 or EGN 3358 or C.I. Internal combustion engine operating principles. Topics covered include engine design and operating parameters, combustion, thermodynamics, induction flow, and basic mathematical models.

Small Rocket Applications for Teachers: PR: Admission to Martin Marietta/UCF Academy. Earth and space environments, rocket propulsion, meteorological and environmental measure-ments, payload launch procedures, orbits and trajectories, safety, model rocket experiments, field trips, student science experiments.

## EGN 5855C ECS-IEMS 3(2,2)

Metrology: PR: EIN 4391C or C.I. Advanced topics in inspection and measurement with applications in engineering and manufacturing.

## EGN 5858C ECS-IEMS 3(2,2)

Introduction to Rapid Prototyping: PR: Basic knowledge and/or experience in CAD/CAM technology or C.I. Topics fundamental to rapid prototyping and automated fabrication technologies. Actual design and fabrication of a part using in-house laboratory facilities.

EIN 3304 ECS-IEMS 2(2,0)
Introduction to Industrial Engineering and Management Systems: Issues important to the operation of an industrial or service facility.

## EIN 3314C ECS-IEMS 3(2,2)

Work Measurement \& Design: PR: STA 3032. Management standards for evaluation and control of man and man/machine systems. Flow and operations analysis, work measurement, job evaluations. Laboratory assignments.

EIN 3354 ECS-IEMS 3(3,0)
Principles of Cost Engineering: PR: EGN 3613. This course is to provide engineers from all disciplines the background for the cost estimation of engineering systems throughout the product life cycle.

## EIN 4116C ECS-IEMS 3(2,2)

Systems Analysis and Design: PR: EIN 4364. Systems analysis methodology, sys-tem requirements, specifications, system design methodology and decision support. Consulting skills and client interactions. Initiation of senior design projects.

## EIN 4118C ECS-IEMS 3(2,3)

Industrial Engineering Applications of Computers: PR: EGN 3210 or high level programming language. Survey of microcomputer methods in industrial engineering practice. Topics include: spreadsheets, databases, expert systems, and project management. Lab exercises.

## EIN 4214 ECS-IEMS 3(3,0)

Safety Engineering and Administration: Analysis of accidents in the industrial operating environment. Application of fault trees, OSHA requirements. Consideration of accident costs and organizational aspects of accident prevention.

## EIN 4243C ECS-IEMS 3(2,2)

Human Engineering: PR: EIN 3314C; Senior standing. Man/machine systems; design and conduct of human engineering studies.

## EIN 4305C ECS-IEMS 3(2,2)

Industrial Engineering Applications in The Service Industries.: PR: EIN 3314C, ESI 4312, ESI 4234 or CI. Application of industrial engineering principles to improve the quality and productivity of service industries such as restaurants, banks, hotels, health care, etc.

EIN 4333C ECS-IEMS 3(2,3)
Industrial Control Systems: PR: ESI 4312. Decision rules in industrial environment including Forecasting, Production Planning, Scheduling, Inventory Control, and Project Monitoring. Laboratory assignments.

## EIN 4364C ECS-IEMS 3(2,2)

Industrial Facilities Planning and Design: PR: EIN 3314C, EIN 3354, EIN 4391C. CR:EIN 4333C. Comprehensive design of industrial production systems, including interrelationships of plant location, process design, and materials handling. Laboratory assignments.

## EIN 4391C ECS-IEMS 3(2,2)

Manufacturing Engineering: PR: EGN 3365. Introduction to manufacturing engineering, with emphasis on current and emerging technologies in metalworking and electronics.

## EIN 4400 ECS-IEMS 3(3,0)

Principles of Concurrent Engineering: PR: EGN 3613 or C.I. Elements of concurrent engineering and its application. Topics include quality function deployment and design for manufacturing and assembly.

## EIN 4411C ECS-IEMS 3(2,2)

Computer-Aided-Manufacturing: PR: EIN 4391C. Computer-Aided-Manufacturing (CAM) including computer numerical control (CNC), robotics, parts classification (GT) and manufacturing resource planning (MRP).

## EIN 4891C ECS-IEMS 3(2,3)

Industrial Engineering Senior Design Project: PR: EIN 4116C, Senior standing. Capstone design course; application of IEMS techniques to real-world design applications.

EIN 5108 ECS-IEMS 3(3,0)
The Environment of Technical Organ-izations: PR: Graduate status or CI; EGN 4624 recommended. Presentation and investigation into the principles required to transform technologists into managers focusing on engineers, scientists, and other professionals providing services in technically-oriented organizations.

Management Information Systems I: PR: C.I. The design and implementation of computer-based Management Information Systems. Consideration is given to the organizational, managerial, and economic aspects of MIS.

## EIN 5140 ECS-IEMS 3(3,0)

Project Engineering: PR: Graduate standing or C.I. Role of engineer in project management with emphasis on project life cycle, quantitative and qualitative methods of cost, schedule, and performance control.

## EIN 5248C ECS-IEMS 3(2,2)

Ergonomics: PR: C.I. Applications of anthropometry, functional anatomy, mechanics, and physiology of musculoskeletal system concepts in the engineering design of industrial tools, equipments, and workstations.

## EIN 5251 ECS-IEMS 3(3,0)

Human-Computer Interaction: Usa-bility Evaluation: Usability paradigms/ principles; cognitive walkthroughs; heuristic, review-based, model-based, empirical and storyboard evaluation; techniques; query techniques; laboratory techniques; and field study approaches.

## EIN 5255 ECS-IEMS 3(3,0)

Interactive Simulation: PR: Post-Baccalaureate status or C.I. Introduction to significant topics relative to the development and use of simulators for knowledge transfer in the technical environment.

EIN 5317 ECS-IEMS 3(3,0)
Training Systems Engineering: PR: seniors, post bac or graduate standing or CI. How human performance deficiencies should be addressed from a systems engineering point of view. Manpower, personnel, and training considerations will be examined

EIN 5356 ECS-IEMS 3(3,0)
Cost Engineering: Cost estimation and control of engineering systems throughout the product life cycle.

## EIN 5368C ECS-IEMS 3(2,2)

Integrated Factory Automation Systems: PR: EIN 4391C or C. I. Automated material handling systems, industrial robots, automated guided vehicles, automated storage and retrieval systems, economics, justification.

EIN 5381 ECS-IEMS 3(3,0)
Engineering Logistics: Study of the logistics life cycle involving planning, analysis and design, testing, production, distribution, and support.

EIN 5388 ECS-IEMS 3(3,0)
Forecasting: PR: ESI 5219. Industrial applications of forecasting methods with emphasis on
microcomputer-based packages.
EIN 5392C ECS-IEMS 3(2,2)
Manufacturing Systems Engineering: PR: EIN 4391C or C.I. The integration of manufacturing technologies and information processing concepts into a system for controlling the manufacturing enterprise.

EIN 5415C ECS-IEMS 3(2,2)
Tool Engineering and Manufacturing Analysis: PR: EIN 4411. Tool materials and design, tolerance technology, theory of metal cutting, and machineability.

EIN 5602C ECS-IEMS 3(2,2)
Expert Systems in Industrial Engineer-ing: Overview of basic concepts, archi-tecture and construction of expert systems in IE. Intelligent simulation training systems, case studies and problems. Laboratory exercises.
EIN 5607C ECS-IEMS 3(2,2)
Computer Control of Manufacturing Systems: PR: EIN 4391C, and EIN 4411C or EML 4535C; or C.I. Automated systems for manufacturing, numerical control (NC) machines, NC program-ming, robot control and programming, machine and system control.

## EIN 5936 ECS-IEMS 1(1,0)

Seminar in Industrial Engineering: Doctoral Research: PR: C.I. Essential topics for doctoral research including research areas, skills, funding, proposals, ethics, mentors, seminars, societies, conferences, presentations, interviewing, grants, and publishing.

## ELD 4011 ED-HSW 3(3,0)

Intro to Specific Learning Disabilities: Nature and needs of students with learning disabilities to include history, theories, characteristics, definitions, assessments, issues, and application of effective teaching practices.

ELD 4242 ED-HSW 3(3,0)
Program Planning for Specific Learning Disabilities: PR: Senior standing. Development of highly specialized techniques, curriculum materials, to be used with students with special learning disabilities.

EMA 3000 ECS-MMAE $\mathbf{3}(\mathbf{3 , 0})$
Engineering Polymeric, Ceramic, and Composite Materials: PR: EGN 3365. Structure, properties, processing of engineering polymeric, ceramic, and composite materials.

EMA 3012C ECS-MMAE 2(1,3)
Experimental Techniques in Mechanics and Materials: PR: EGN 3365 and EML 3601. Metallography, heat treatment, mechanical testing, failure analysis, scanning electron microscopy,
design of engineering materials.

## EMA 3124 ECS-MMAE 3(3,0)

Structure and Properties of Alloys: PR: EGN 3365. Relation of properties to microstructure and applications of major ferrous and non-ferrous alloys.

EMA 4223 ECS-MMAE $3(3,0)$
Deformation and Fracture of Materials: PR: EGN 3365. Plastic deformation, strengthening mechanisms, fatigue, fracture, and creep of materials.

EMA 4413 ECS-MMAE $3(3,0)$
Electronic Properties of Materials: PR: EGN 3363. Electronic processes in solids. Electrical, magnetic, and optical properties of solids. Electron energies in solids. Superconducting materials.

## EMA 4501 ECS-MMAE $\mathbf{3}(\mathbf{2 , 2})$

Scanning Electron Microscopy: PR: EGN 3365 or C.I. A review of electron optics, beam/specimen interactions, image formation, x-ray analysis, speci-men preparation, microelectronic appli-cations, and crystallography in the SEM.

## EMA 4606 ECS-MMAE 3(3,0)

Transport Phenomena in Materials Processing: PR: EGN 3365, EGN 3343 or EGN 3358. Conservation equations, fluid flow, heat transfer, free and moving boundaries, solidification, single-phase and multi-phase materials, alloys, solute rejection, microstructure, macrosegregation.

## EMA 4701C ECS-MMAE $3(2,4)$

Materials Performance in Space Applications: PR: EGN 3365. Laboratory failure analysis of materials within space-related environments.

## EMA 5060 ECS-MMAE 3(3,0)

Polymer Science and Engineering: PR: EGN 3365. Structure and properties of polymers, preparation and processing of polymers, mechanical properties, use in manufacturing and high tech applications.

## EMA 5104 ECS-MMAE 3(3,0)

Intermediate Structure and Properties of Materials: PR: EGN 3365. Fundamentals of dislocation theory, metallurgical thermodynamics and diffusion. Phase transformations, strengthening mechanisms and fracture. Introduction to engineering polymers, ceramics, and composites.

EMA 5106 ECS-MMAE 3(3,0)
Metallurgical Thermodynamics: PR: EGN 3343 and EGN 3365. Laws of thermodynamics, phase equilibria, reactions between condensed and gaseous phases, reaction equilibria in condensed solution and phase diagrams.

Surface Science: PR: PHY 2049 and C.I. Methods of chemical and physical analysis of surfaces, with emphasis on ultra-high vacuum spectroscopics utilizing electron, ion and photon probes.

## EMA 5140 ECS-MMAE 3(3,0)

Introduction to Ceramic Materials: PR: EGN 3365. Uses, structure, physical and chemical properties, and processing of ceramic materials. Discussions will include recent developments for high technology applications.

## EMA 5317 ECS-MMAE 3(3,0)

Materials Kinetics: PR: Materials Ther-modynamics. Topics include Arrhenious law, free energy, Johnson-Mehl equations, homogenous vs. heterogeneous reactions, mixing, electrodeposition, thermal analysis in kinetics. Graded S/U.

## EMA 5326 ECS-MMAE 3(3,0)

Corrosion Science and Engineering: PR: EGN 3363. Electrochemical prin-ciples and applications to detecting and monitoring corrosion processes. Various forms of corrosion, their causes and con-trol. Techniques of corrosion protection.

## EMA 5504 ECS-MMAE 3(2,2)

Modern Characterization of Materials: PR: EMA 5104 or C.I. Techniques and operation of instrumentation (light, scanning, transmission, and auger microscopy) for the characterization of structure, defects, composition, and surfaces.

## EMA 5505 ECS-MMAE 3(2,2)

Scanning Electron Microscopy: PR: EMA 5014 or C.I. A review of electron optics, beam/specimen interactions, image formation, x-ray analysis, speci-men preparation, microelectronic appli-cations and crystillography in the SEM

## EMA 5517 ECS-MMAE 3(2,2)

Advanced Materials Characterization by Ion Beam Analysis: PR: EMA 5504 or C.I. Principle of interactions between ion beam and solid materials; sputtering and scattering theories; fundamentals and applications of secondary ion mass and Rutherford Backscattering spectrometric. May be repeated for credit.

## EMA 5584 ECS-MMAE 3(3,0)

Biomaterials: PR: EGN 3365. Properties of natural biological materials and their relation to microstructure, biocompatibility, specific applications in orthopedic, cardiovascular, visual, neural, and reconstruction implants.

EMA 5586 ECS-MMAE 3(3,0)
Photovoltaic Solar Energy Materials: PR: EGN 3365. Materials properties basic to photovoltaics, structures, homojunction, heterojunction, and surface barrier solar cells, AMDS-1D modeling of c-Si, GaAs bulk and a-Si:H, CIGS, and CdTe thin film solar cells. May be repeated for credit.

Laser Materials Processing: PR: EGN 3343 or EMA 5106 or C.I. Laser beam optics; laser-material interactions; laser heating, melting, vaporization. Plasma formation; laser surface treatment, weld-ing, machining; laser material synthesis. Thin film deposition, crystal growth.

## EMA 5705 ECS-MMAE 3(3,0)

High Temperature Materials: PR: EMA 5104. Desired material properties for high temperature applications, physical metallurgy of such materials, corrosion, hot corrosion and oxidation properties, aero- and land-based gas turbine requirements.

EME 2040 ED-HSW 3(3,0)
Technology for Educators: Introduction to technology for educators, including classroom management tools, multimedia, communication networks, interactivity, educational software and legal, ethical and social issues.

EME 5052 ED-ED F 3(3,0)
Electronic Resources for Education: PR: LIS 5356 or C.I. Study and application of electronic resources available for education including techniques for locating, evaluating, and integrating them into the classroom.

EME 5054 ED-ED F $\mathbf{3}(\mathbf{3}, 0)$
Instructional Systems Technology: A Survey of Applications: Applications of instructional technology in settings other than public schools. Survey of facilities, programs, and services in business, industry, religion, government, higher education, and medical settings.

## EME 5056 ED-ED F 3(3,0)

Communication for Instructional Systems-Process: Principles of written and oral communications for instructional technologists; development of assertive-ness and interpersonal skills; conducting training programs for employees; creating hard copy materials.

## EME 5057 ED-ED F 3(3,0)

Communication for Instructional Systems-Application: PR: EME 5056. Applications of technology, communica-tions theory, platform skills, and instruc-tional design to the effective presentation of training programs and instruction.

EME 5208 ED-ED F 3(3,0)
Production Techniques for Instructional Settings: PR: Acceptance into Ed Media Program or C.I. Skills in producing instructional materials. Emphasis on graphic, audio, video, and photographic skills and the application of instructional and communication theories.

## EME 5408 ED-HSW 3(3,0)

Computer Applications in Instructional Systems: PR: EME 2040 or C.I. Introduction to applications for the design, production, and management of interactive courseware within instructional
systems.
EME 5810 ED-ED F 1(1,0)
Teaching and Learning with Technology: Overview of technologies for teach-ing and for learning. Practical strategies for using technology in the classroom. (May be repeated 3 times for credit.)

EML 3001C ECS-MMAE 1(1,2)
Machine Shop Practice: PR: EGS 1111C or C.I. Set up and operation of mill and lathe, cutting tools, holding devices, cutting speeds and feed rates. Measure-ment devices. Hands-on experience.

## EML 3034 ECS-MMAE 3(3,0)

Modeling Methods in Mechanical and Aerospace Engineering: PR: EGN 1111C, MAP 2302, high level programming language; CR: EGN 3321. Computer aided modeling of mechanical and aerospace systems. Solution methods. Curve fitting. Optimization. Case studies with applications to MAE design.

## EML 3101 ECS-MMAE 3(3,0)

Thermodynamics of Mechanical Systems: PR: EGN 3343. Applied thermodynamics, availability analysis, thermodynamics of reactive and non-reactive mixtures, thermodynamic relations of properties. Thermodynamic design analysis of complete mechanical systems.

EML 3262C ECS-MMAE 3(2,2)
Kinematics of Mechanisms: PR: EGN 3321. Graphical, mathematical, and computer-aided kinematics, analysis, and synthesis of basic mechanisms.

## EML 3303C ECS-MMAE 3(2,3)

Mechanical Engineering Measure-ments: PR: EGN 3343, CR: EML 3601. Theory, calibration and use of instru-ments. Measurement techniques, data analysis, report writing. Laboratory topics related to mechanical engineering.

## EML 3312C ECS-MMAE 3(2,3)

Feedback Control: PR: EGN 3321, MAP 2302, EGN 3373. Mathematical Modeling of Dynamic Systems: Transient and Steady State Response; Root Locus and z-transform Methods; Discrete Systems Analysis; Controller Design.

## EML 3500 ECS-MMAE 3(3,0)

Machine Design and Analysis: PR: EML 3601. Application of the principles of mechanics of materials to the design of mechanical elements.

## EML 3601 ECS-MMAE 3(3,0)

Solid Mechanics: PR: EGN 3310; CR: MAP 2302. Concepts of stress, strain, deflection; axial force, torsion, bending; combined stress, Mohr's circle, failure theories; design concepts, application to machines and vehicles.

Fluid Mechanics I: PR: MAP 2302, EGN 3321, EGN 3343. Basic principles of continuum fluid mechanics. Integral and differential forms of governing equations, fluid statics, dimensional analysis, measurements, internal flows.

## EML 3804C ECS-MMAE 3(2,3)

Digital Control in Mechatronics: PR: EML 3312C. Discrete microprocessor control of mechatronics dynamic systems using state-space representation: Digital controllers: Design for mechatronic applications

## EML 4005 ECS-MMAE 3(3,0)

Design in Nature and Engineering: PR: EGN 3343 and EML 3601. Design for function and invention, in both engineering and nature: economy, form, beauty, energy, mechanism, structure, evolution in nature.

## EML 4142 ECS-MMAE 3(3,0)

Heat Transfer: PR: EML 3701. Conduction, radiation, and convection heat transfer. Basic energy balances emphasized. Steady state and transient problems, analysis and design of simple heat exchangers.

EML 4220 ECS-MMAE $\mathbf{3 ( 3 , 0 )}$
Vibration Analysis: PR: EGN 3321 and EML 3601. Undamped and damped vibration of single degree freedom systems. Forced vibration. Transient response. Multiple degree of freedom systems. Normal modes.

## EML 4260 ECS-MMAE 3(3,0)

Dynamics of Machinery: PR: EML 3362C and EML 4220. Critical speeds and response of flexible rotor systems, whirl, gyroscopic effects; balancing of rotating and reciprocating masses; cam dynamics.

## EML 4264 ECS-MMAE 3(3,0)

Vehicle Dynamics: PR: EML 3262C and EML 4220. Basic mechanics governing vehicle dynamics, performance and handling; acceleration, braking, ride, cornering, suspension, steering, rollover.

EML 4304C ECS-MMAE 3(1,4)
Thermo-Fluids Measurements: PR: EML 3303C and EML 4142. Measurements in thermo-fluid systems with emphasis on design of experiments.

EML 4411 ECS-MMAE 3(3,0)
Mechanical Power Systems: PR: EML 3101. Analysis and design of large power generating systems and components, with emphasis on steam plants utilizing both chemical and nuclear fuels.

EML 4501C ECS-MMAE 3(1,6)

Engineering Design I: PR: EML 3500, EML 3701 and EML 3303C. Application of the design process in the team solution of a state-of-the-art problem. Aerospace, mechanical, thermo-fluid, or material problems are considered.

## EML 4502C ECS-MMAE 3(1,6)

Engineering Design II: PR: EML 4501C. Continuation of the design process in the team building and testing of a prototype. A test plan and a test report are completed.

## EML 4535C ECS-MMAE 3(2,3)

CAD/CAM: PR: EGN 3343, EML 3034, and EML 3601; CR EAS 4200 or EML 3500.
CAD/CAM/FEM computational technology. Basic concepts. Concurrent engineering approach to mechanical, thermal, and aerospace systems design and analysis. Use of in-house software.

## EML 4600 ECS-MMAE 3(3,0)

HVAC Systems Engineering: PR: EML 3101 and EML 4142. Heating, ventila-tion, air-conditioning, and refrigeration principles and systems design. Phychro-metrics, heating and cooling loads, equip-ment and components, and distribution systems.

## EML 4703 ECS-MMAE 3(3,0)

Fluid Mechanics II: PR: EML 3701. Continuation of Fluid Mechanics I. External flows, fluid machinery, compressible flows, design projects.

## EML 5025C ECS-MMAE 3(2,2)

Engineering Design Practice: PR: C.I. The course is designed to familiarize students with basic CAD/CAM solid modeling techniques in a project oriented environment. Students will construct part models, drawings, and assemblies. Use of in-house software.

## EML 5060 ECS-MMAE 3(3,0)

Mathematical Methods in Mechanical, Materials and Aerospace Engineering: PR: MAP 2302. Vector field theory, generalized coordinates, complex variables, contour integration and LaPlace and Fourier transforms and inversions, variable coefficient ODEs and solution of PDEs for governing equations of heat transfer, ideal fluid flow, and mechanics.

## EML 5066 ECS-MMAE 3(3,0)

Computational Methods in Mechanical, Materials and Aerospace Engineering: PR: EML 3034. Error Norms, interpola-tion and extrapolation, quadratures and adaptive quadratures, solutions of linear and nonlinear systems of equations, functional approximation, solution of ODE's and MWR.

## EML 5105 ECS-MMAE 3(3,0)

Gas Kinetics and Statistical Thermodynamics: PR: EAS 4134 or EML 4703. Molecular and statistical viewpoint of gases and thermodynamics; Boltzmann collision integral, partition functions, non-equilibrium flows. Applications in thermo-fluid systems.

## EML 5131 ECS-MMAE 3(3,0)

Combustion Phenomena: PR: EML 4703, EML 3101. Physical and chemical aspects of combustion phenomena. Rate processes, chemical kinetics, structure, propagation and stability of premixed and diffusion flames.

## EML 5152 ECS-MMAE 3(3,0)

Intermediate Heat Transfer: PR: EML 4142, EML 5713, EML 5060. An intermediate-level course dealing with heat and mass diffusion, boundary layer problems, and radiation from real bodies. Emphasis on combined modes, numerical methods.

## EML 5211 ECS-MMAE 3(3,0)

Continuum Mechanics: PR: EML 3500 or EML 4703 or EAS 4200 or C.I. Introduction to tensors; deformation and strain; stress; balance laws, applications in Newtonian fluid dynamics and isotropic linear elasticity.

## EML 5224 ECS-MMAE 3(3,0)

Acoustics: PR: EML 4220. CR: EML 5060. Elements of vibration theory and wave motion; radiation, reflection, absorption, and transmission of acoustic waves; architectural acoustics; control and abatement of environmental noise pollution; transducers.

## EML 5228C ECS-MMAE 3(3,0)

Modal Analysis: PR: EML 3303, EML 4220, and_ EML 5060. Theoretical basis. Measurement techniques, excitation, transducers, data acquisition. Detailed data analysis, modal parameter extraction, curve-fitting procedures. Modeling.

## EML 5237 ECS-MMAE 3(3,0)

Intermediate Mechanics of Materials: PR: EML 3500, EML 5060. Elements of elasticity. Failure theories. Bending and torsion. Thin plates. Energy principles. Thick-walled cylinders. Applications to design.

## EML 5245 ECS-MMAE 3(3,0)

Tribology: PR: EGN 3365, EGN 3331 and EML 3701. Principles of fluid film lubrication (liquid and gas, journal and thrust bearings), contact mechanics (rolling element bearings), design of bearings and load bearing surfaces, friction and wear of materials, tribotesting.

## EML 5271 ECS-MMAE 3(3,0)

Intermediate Dynamics: PR: EML 3321. Dynamics of particles, rigid bodies, and distributed mass systems. Hamilton's principle. Lagrange's equations. Numerical methods. Mechanisms.

## EML 5311 ECS-MMAE 3(3,0)

System Control: PR: EML 3312C; CR: EML 5060. Modern control theory for linear and non-linear systems; controllability and observability. Linear state feedback and state estimators, compensator design.

Turbomachinery: PR: EML 3101, EML 4703 or EAS 4134. Application of the principles of fluid mechanics, thermodynamics, and aerodynamics to the design and analysis of steam and gas turbines, compressors, and pumps.

EML 5532C ECS-MMAE 3(2,3)

Computer-Aided Design for Manufacture: PR: EGN 4535C. Builds on introductory material covered in EML 4535C. Topics include computer modeling for the synthesis, simulation, design and manufacture of mechanical, thermal, and aerospace systems.

EML 5546 ECS-MMAE 3(3,0)
Engineering Design with Composite Materials: PR: EML 5237. Mechanics of structural components of composite materials under static, thermal, vibratory loads. Instability. Lamina and laminate theory, energy methods, failure theories, and structural joining methods.

## EML 5572 ECS-MMAE 3(3,0)

Probabilistic Methods in Mechanical Design: PR: EML 3500, STA 3032. Uncertainty modeling in design. Use of probabilistic mathematics to assess strength, stiffness, toughness, and stability. Applications.

## EML 5605 ECS-MMAE 3(3,0)

Applied HVAC Engineering: PR: EML 4600. Applications of HVAC systems design with the objective of optimizing energy efficiency, humidity control, ventilation and indoor air quality. May be repeated for credit.

## EML 5606 ECS-MMAE 3(3,0)

HVAC Systems Engineering: PR: EML 3101, EML 4142, EML 3034. H eating, ventilation, air-conditions and refrigeration principles, system design and analysis. May be repeated for credit.

## EML 5713 ECS-MMAE 3(3,0)

Intermediate Fluid Mechanics: PR: EML 4703. CR: EML 5060. Fluid kinematics; conservation equations; Navier-Stokes equations; boundary layer flow, inviscid flow, circulation and vorticity; low Reynolds number flow; turbulence.

EMR 4011 ED-HSW 3(3,0)
Intro to Mental Retardation: Nature and needs of mentally handicapped students with emphasis on etiology, prevention, identification, and application of effective practices and recognition of trends and standards.

## EMR 4372 ED-HSW 3(3,0)

Curriculum Method and Materials for Retarded Persons: PR: Senior standing. Development of highly specialized techniques, curriculum and materials to be used with students with mental retardation.

Composition I: Expository writing with emphasis on effective communication and critical thinking. Emphasizing the writing process writing topics are based on selected readings and on student experiences. Course is graded with "A," "B," "C," "NC" and "F."

ENC 1101H AS-ENG 3(3,0)
Honors Freshman Composition I: PR: Score of 60+ on TSWE of SAT or C.I. Same as ENC 1101, with honors-level content. Course is graded with "A," "B," "C," "NC" and "F."

ENC 1102 AS-ENG 3(3,0)
Composition II: PR: ENC 1101 with a grade of "C" or better. Focus on extensive research in analytical and argumentative writing based on a variety of readings from the humanities. Emphasis on developing critical thinking and diversity of perspective. Course is graded with "A," "B," "C," "NC" and "F."

## ENC 1102H AS-ENG 3(3,0)

Honors Freshman Composition II: PR: ENC 1101H with a grade of "C" or better or C.I. Same as ENC 1102, with honors-level content. Note on Freshman English Program: ENC 1101 and 1102 must be taken before enrolling in any English course numbered above 1102. Course is graded with "A," "B," "C," "NC" and "F."

ENC 2127 AS-ENG 3(3,0)
Grammar and Composition: A system-atic study of grammar and mechanics to improve editing for clarity and accuracy in writing.

ENC 2210 AS-ENG 3(3,0)
Writing for the Business Professional: PR: ENC 1102, Junior standing or C.I. Emphasis on clear expository writing of memoranda, reports, and articles in the student's declared field of business.

ENC 2411C AS-ENG 3(2,1)
Digital Literacy for the Liberal Arts: Designed to help students better understand how computer technologies have shaped our culture and ourselves; to become critical consumers of technology; to acquire a critical sensibility regarding the manner in which technology affects and is affected by texts.

ENC 3211 AS-ENG 3(3,0)
Theory and Practice of Technical Writing: PR: ENC 1102, Junior standing, or C.I. Provides definition, history, scope, practices, and theoretical bases of technical writing and its relationship to general English studies.

ENC 3241 AS-ENG 3(3,0)
Writing for the Technical Professional: PR: ENC 1102, Junior standing, or C.I. Instruction and practice in expository prose used in technical writing, layout and design of data, and translation of technical documents for the lay audience.

Scientific Report Writing: PR: ENC 1102 \& Jr standing or C.I. The principles of science report writing as used in pure and applied science contexts.

ENC 3310 AS-ENG 3(3,0)
Magazine Writing I: PR: ENC 1102. Intensive practice in description narration, exposition and argumentation; control of tone, mood, viewpoint, and level of diction. Applicable to article, essay, and short story writing.

ENC 3311 AS-ENG 3(3,0)
Advanced Expository Writing: PR: ENC 1102. Practice of expository writing directed to general reader.

ENC 3905 AS-ENG 3(3,0)
Directed experience in Writing: PR: ENC 1102, C.I. Individualized topics of study and/or research in writing with personalized faculty direction. May be repeated for credit.

ENC 3942 AS-ENG 3(3,0)
Journal Writing Practicum: An interdisciplinary practicum in journal writing as a literary genre and a means of self-expansion.

ENC 4215 AS-ENG 3(3,0)
Techniques of Technical Publications: PR: C.I. Study of new publishing technology, stressing composition and printing; word processing, automated text processing, methods of reproduction. Introduction of graphics; style, format, layout, and boardwork. Should be taken concurrently with ENC 4294.

ENC 4218 AS-ENG 3(3,0)
Visual Elements in Documentation: PR: ENC 4293; to be taken concurrently with ENC 4215. Study and preparation of visuals and graphics in technical writing and documentation; use of computer graphics; slides; transparencies; charts; graphs; drawings.

ENC 4265 AS-ENG 3(3,0)
Writing for the Computer Industry: PR: ENC 1102 and Junior standing, or C.I. This course addresses the special demands of writing for the computer industry.

ENC 4275 AS-ENG 3(3,0)
Writing/Consulting: theory \& practice: PR: C.I. Theory and practice of assessing and responding to writing from the standpoint of a collaborator, as opposed to evaluator.

ENC 4280 AS-ENG 3(3,0)
Technical Writing Style: PR: C.I. Review of dictionaries and articles in various technical fields. Recognition of specialized vocabulary. Familiarity with reading level indexes and standards.

Technical Documentation I: PR: ENC 3211 or ENC 3241. Practice in translating highly technical information to organized documentation: hardware, software, military specifications. Theory of designing and organizing technical manuals. Preparation of proposals. Interview skills.

ENC 4294 AS-ENG 3(3,0)
Technical Documentation II: PR: ENC 4293. Practical application of editing theory to large ongoing projects from the student's particular field. Should be taken concurrently with ENC 4215.

ENC 4295 AS-ENG 3(3,0)
Technical Documentation III: PR: ENC 4294. Designing, writing, and illustrating manuals, e.g., repairs, maintenance or users. Project supervised by a member of a student's major department or technical editor of a corporation.

## ENC 4312 AS-ENG 3(3,0)

Theory \& Practice Persuasive Writing: PR: ENC 1102. A study of the theory and practice of persuasion, including logical emotional and ethical appeals.

ENC 4414 AS-ENG 3(3,0)
Studies in Hypertext: PR: ENC 1102. Hypertext and the architectures of large scale websites used by industry, government, and education

ENC 4415 AS-ENG 3(3,0)
Digital Rhetorics and The Modern Dialectic: PR: ENC 1102. This online course explores the development of digital/online rhetorics through a close reading and analysis of formative rhetorical texts, modern American fiction and films.

ENC 5214 AS-ENG 3(3,0)
Production and Publication Methods: Theory and practice of production and publication methods for technical writers.

ENC 5219 AS-ENG 3(3,0)
Graphics in Technical Writing: A study of the creation and editing of graphics in technical documents.

ENC 5237 AS-ENG 3(3,0)
Writing for the Business Professional: PR: Graduate status or C.I. A study of the major document designs for professionals in business, focusing on audience, purpose, style, arrangements, and content

ENC 5245 AS-ENG 3(3,0)
Teaching Professional Writing: Prepares students to determine writing needs of professional discourse communities, analyze those needs, and design in-house or freelance writing programs to address those needs.

Gendered Rhetoric: PR: Graduate status or C.I. Questions women's and men's lin-guistic choices, the influence of medium and discipline of discourse, and conse-quences of status, power, and oppression

ENC 5267 AS-ENG 3(3,0)
Styles in Technical Writing: PR: Graduate Standing or C.I. This course focuses on all the strategies necessary to write effective technical prose.

ENC 5306 AS-ENG 3(3,0)
Persuasive Writing: Theory and practice of writing persuasively.
ENC 5337 AS-ENG 3(3,0)
Modern Rhetorical Theory: With special attention to the rhetor-audience relationship, the course studies history and practice of modern rhetorical theory.

ENC 5344 AS-ENG 3(3,0)
Proposal Writing: Theory and practice of writing proposals.
ENC 5425 AS-ENG 3(3,0)
Hypertext Theory and Design: PR: post-bac standing or C.I. Theoretical and practical study of the uses and premises of hypertext.

ENC 5427 AS-ENG 3(3,0)
Hypertext: PR: Sr or Graduate standing. A study of the theory and practice of computer-driven hypertext.

ENC 5705 AS-ENG 3(2,1)
Theory and Practice in Composition: PR: Senior standing or C.I. Intensive study of theories of composition, with practical experience in the writing laboratory and in composition classes.

ENG 3010 AS-ENG 3(3,0)
Practical Criticism: PR: ENC 1102. Student evaluation of selected fiction, poetry, and drama through practical exercises in literary criticism.

ENG 3014 AS-ENG 3(3,0)
Theories and Techniques of Literature Study: PR: ENC 1102, Junior standing, or C.I. Techniques of analysis, theories of interpretation, and application of critical approaches to selected works.

ENG 4114 AS-ENG 3(3,0)
Literature and Film: PR: ENC 1102, ENG 3014. The differences in emphasis, medium, and technique in selected novels and their film adaptations.

ENG 5009 AS-ENG 3(3,0)
Methods of Bibliography and Research: Bibliographical, library and systematic approaches to
research at the graduate level in language and literature.
ENG 5018 AS-ENG 3(3,0)
Literary Criticism: PR: Graduate standing or C.I. Historical survey of major critics from classical antiquity to the modern era.

ENL 2012 AS-ENG 3(3,0)
English Literature I: PR: ENC 1102. Beowulf to 1798.
ENL 2021 AS-ENG 3(3,0)
English Literature II: PR: ENC 1102. From 1798 to 1914.
ENL 3951 AS-ENG 3(3,0)
Orlando Shakespeare Festival: PR: ENC 1102. Involvement in theory and practice of Shakespeare's art by performance-oriented study and participation in the Orlando Shakespeare Festival's pre-season activities and productions.

ENL 3951H AS-ENG 3(3,0)
Orlando Shakespeare Festival Honors: PR: ENC 1102. Honors theory and prac-tice of Shakespeare's art by performance-oriented study and participation in the Orlando Shakespeare Festival's pre-season activities and productions.

ENL 4101 AS-ENG 3(3,0)
English Novel: PR: ENC 1102. Analysis of major English novelists.
ENL 4220 AS-ENG 3(3,0)
English Renaissance Poetry and Prose: PR: ENC 1102. The course will examine selected poetry and prose of Wyatt, Surrey, Sidney, Spenser, Marlowe, Raleigh, Daniel, Shakespeare, Chapman, Lyly \& others.

ENL 4230 AS-ENG 3(3,0)
18th Century Studies: PR: ENC 1102 and ENG 3014. Reading, analysis, and discussion of literature in English: 1660-1880. May be repeated for credit.

ENL 4240 AS-ENG 3(3,0)
English Romantic Writers: PR: ENC 1101, ENC 1102. Study of English poets and essayists of the romantic period, including Wordsworth, Coleridge, Hazlitt, Lamb, Byron, Shelley \& Keats.

ENL 4253 AS-ENG 3(3,0)
The Victorian Age: Poetry: PR: ENC 1102. Poets of the Victorian period, including Tennyson, the Brownings, Arnold, Hopkins, the Rossettis, and Emily Bronte.

ENL 4262 AS-ENG 3(3,0)

Nineteenth Century British Prose: PR: ENC 1102. Essays and fiction of the nineteenth century.
ENL 4273 AS-ENG 3(3,0)
Modern British Literature: PR: ENC 1102. Major writers of modern British literature.
ENL 4311 AS-ENG 3(3,0)
Chaucer: PR: ENC 1102. The Canterbury Tales, Troilus and Criseyde, and other works.
ENL 4333 AS-ENG 3(3,0)
Shakespeare Studies: PR: ENC 1102. Reading, analysis, and discussion of Shakespeare's plays. May be repeated for credit.

ENL 4341 AS-ENG 3(3,0)
Milton and His Age: PR: ENC 1102. Paradise Lost, Paradise Regained, Samson Agonistes, shorter poems and selected prose.

ENL 5237 AS-ENG 3(3,0)
Eighteenth Century Studies: Reading, analysis, and discussion of literature in English:1660-1880.
ENL 5250 AS-ENG 3(3,0)
The Victorian Age: Poetry: PR: Graduate standing or C.I. Poets of the Victorian period, including Tennyson, the Brownings, Arnold, Hopkins, Hardy, the Rossettis, Emily Bronte, and others.

ENL 5256 AS-ENG 3(3,0)
Victorian Literature: PR: Graduate Standing or C.I. A study of the major prose works and selected poetry of British Victorian writers.

ENL 5269 AS-ENG 3(3,0)
Nineteenth-Century Essays: PR: Graduate standing or C.I. English non-fiction prose of the 19th century.

ENL 5335 AS-ENG 3(3,0)
Studies in Shakespeare: PR: Senior standing or C.I. A selection of representative plays, with emphasis on Shakespeare's development as an artist: aesthetics of dramatic literature.

ENL 5347 AS-ENG 3(3,0)
The Age of Milton: PR: Senior standing or C.I. Emphasis on the non-dramatic works of John Milton. Selections from the non-dramatic works of other 17th-century figures.

ENS 1441 AS-ENG 3(3,0)
Advanced ESL Writing: PR: TOEFL Score of 500+ and completion of ENC 0020 or equivalent. Advanced work in writing for non-native speakers to over-come problems encountered in mastering academic English, not remedial composition.

ENV 3001 ECS-CEE 3(3,0)
Introduction to Environmental Engin-eering: PR: CHM 2046 and MAC 2312. Introduction to concepts and terminology of environmental engineering. Stresses material and energy balances. Covers air, water and land pollution. May be repeated for credit

ENV 4112C ECS-CEE 3(2,2)
Air Pollution Measurements Lab: PR: ENV 4121. Measurement of gaseous flow, isokinetic sampling, and pollutant quantification. Emphasis is placed on EPA methods.

ENV 4120 ECS-CEE $\mathbf{3}(\mathbf{3}, 0)$
Air Pollution Control: PR: EGN 3704 or ENV 3001 and CWR 3201. Air resources engineering design, and operation of air pollution control systems.

ENV 4121C ECS-CEE 3(2,3)
Air Pollution: PR: EGN 3704, CWR 3201. Sources, causes, and effects of air pollution. Engineering design, analysis, and modeling for the control of air pollution.

ENV 4122C ECS-CEE 3(2,2)
Air Pollution Control Design: PR: ENV 4121C. Project course on design of air pollution control equipment and systems.

ENV 4300C ECS-CEE 3(2,2)
Solid Waste Facility Design: PR: ENV
4341. Project course on design of a municipal solid waste landfill.

ENV 4341 ECS-CEE 3(3,0)
Solid Waste Management: PR: EGN 3704 or C.I. Engineering design, plan-ning, and analysis problems associated with storage, collection, processing, and disposal of solid and hazardous wastes.

ENV 4432 ECS-CEE $3(3,0)$
Potable Water Treatment: PR: ENV 3001 and CWR 3201. Detailed investigation of principles of design and operation of potable water treatment facilities. May be repeated for credit.

ENV 4531 ECS-CEE 3(3,0)
Wastewater Treatment Processes: PR: ENV 3001 and CWR 3201. Detailed investigation of priciples of design and operation of wastewater treatment facilities. May be repeated for credit.

ENV 4561 ECS-CEE $\mathbf{4}(4,0)$
Environmental Engineering - Process Design: PR: EGN 3704 and CWR 3201. Water treatment and wastewater treatment design considerations with effluent and sludge handling, treatment, and disposal.

Environmental Engineering Systems Design: PR: ENV 4561, CWR 4202C. Project course on design of water and wastewater treatment plants.

ENV 4563 ECS-CEE $3(3,0)$
Environmental Control Systems: PR: EGN 3343, 3373. CR: ENV 4561. Analysis and design of process control systems in environmental engineering applications including process dynamics, instrumentation, and control system configuration.

ENV 5071 ECS-CEE 3(3,0)
Environmental Analysis of Transpor-tation Systems: PR: CWR 3201; EGN 3704. Prediction and abatement of pollution from transportation sources. Anal-ysis techniques and environmental laws.

ENV 5116C ECS-CEE 3(2,3)
Air Pollution Monitoring: PR: ENV 4121C or C.I. Air Pollution sampling techniques, equipment, and monitor siting. Emphasis on theory and direct applications in air pollution monitoring.

ENV 5334 ECS-CEE 3(3,0)
Characterization of Hazardous Waste Sites: PR: CWR 4101C and ENV 4341 or C.I. Practical and comprehensive methods of hazardous waste site characterization to determine site properties, contamination type, magnitude and risk, and remedial actions.

ENV 5335 ECS-CEE 3(3,0)
Hazardous Waste Management: PR: EGN 3704 or C.I. Engineering planning and analysis associated with the handling, storage, treatment, transportation, and disposal of hazardous wastes.

ENV 5410 ECS-CEE 3(3,0)
Drinking Water Treatment: PR: ENV 4561. Drinking water treatment using existing and newly developed processes. Fe, Mn, As, NO3, DBP3, SOCs and other contaminants using oxidation, membranes, ion exchange, precipitation, sorption, and other processes.

## ENV 5505 ECS-CEE 3(3,0)

Sludge Management Operations in Environmental Engineering: PR: ENV 4561. Theory and design of sludge management operations and processes in environmental engineering, including stabilization dewatering and ultimate disposal.

ENY 4004C AS-BIOL 4(2,6)
General Entomology: PR: BSC 2010C and BSC 2011C, or C.I. Biology of insects: identification, taxonomy, physiology, behavior, and ecology.

EPH 5335 ED-IP 3(3,0)
Physical and Sociological Implications of Handicapping Conditions: Overview of physical and sociological factors which may contribute to delayed learning or physical impairments in the exceptional populations. Physical interventions and first-aid practices are examined.

Internship I - Secondary: PR: EDG 4323. Student teaching in a secondary school under the supervision of a certified classroom teacher.

ESE 4943 ED-IP 7-12(0,35)
Internship II - Secondary: PR: ESE 3940 or EDE 3942. Student teaching in a secondary school under the direction of a certified classroom teacher. Scheduled concurrent seminars.

ESE 5214 ED-IP 3(3,0)
Secondary School Curriculum Improvement I: PR: Regular Certificate or C.I. Secondary School self studies for curriculum projects, accreditation reports, or staff development.

## ESI 4221 ECS-IEMS 3(3,0)

Empirical Methods for Industrial Engineering: PR: STA 3032. Application of empirical methods for industrial engineering problem solving.

## ESI 4234 ECS-IEMS 3(3,0)

Quality Engineering: PR: STA 3032. Basic concepts and techniques of quality control; applications of statistics in industrial research; design of quality assurance systems; reliability engineering.

## ESI 4312 ECS-IEMS 3(3,0)

Operations Research: PR: STA 3032. Introduction to linear, non-linear, and dynamic programming. Decision analysis, random processes, and queueing. Course covers theory through application and implementation of results.

ESI 4321 ECS-IEMS 3(3,0)
Quantitative Techniques in Industrial Engineering: PR: ESI 4312. Extension of ESI 4312, with primary emphasis on Operations Research and statistical applications to industrial engineering problems.

## ESI 4523C ECS-IEMS 3(2,3)

Systems Simulation: PR: STA 3032, EGN 3210 or high level programming language. Methods and procedures for simulating large-scale systems with digital computers. High level programming and simulation languages are used.

ESI 5219 ECS-IEMS 3(3,0)
Engineering Statistics: PR: C.I. Discrete and continuous probability distributions, hypothesis testing, regression, nonparametric stats and ANOVA.

## ESI 5227 ECS-IEMS 3(3,0)

Total Quality Improvement: PR: STA 3032 or equivalent. Quality improvement (QI) tools and techniques, advanced QI techniques, quality improvement systems, total quality management concepts
and implementation, planning and management tools, and case studies.
ESI 5236 ECS-IEMS 3(3,0)
Reliability Engineering: PR: ESI 4234 or equivalent, or C.I. Reliability theory and modeling approaches. Topics include: failure data analysis, maintainability, reliability standards (DOD), software reliability, reliability in design, and electronic systems reliability.

## ESI 5315 ECS-IEMS 3(3,0)

Research Foundations for IE and OR Modeling: PR: MAP 2032; ESI 5219 or equivalent; ESI 4312; and C.I. Research foundations for IE/OR modeling, including constructive analysis of published research, methods of proof, research foundations in decision theory, optimization, and related areas.

## ESI 5316 ECS-IEMS 3(3,0)

Operations Research: PR: STA 3032. Methods of operations research, including formulation for models and derivation of solutions; linear programming, network models queueing theory, simulation, and nonlinear optimization techniques.

## ESI 5318 ECS-IEMS 3(3,0)

Military Applications of Operations Research: PR: ESI 4312 or ESI 5316. Course covers application of operations research models to military planning and operations. Use of optimization, simulation, probability, and statistical modeling to evaluate force alternatives.

## ESI 5359 ECS-IEMS 3(3,0)

Risk Assessment and Management: PR: ESI 5219 or STA 3032. Problems and complexities involved in risk assessment and management. Selected methodologies are illustrated through realistic applica-tions in engineering and the sciences.

## ESI 5419C ECS-IEMS 3(2,2)

Engineering Applications of Linear and Nonlinear Optimization: PR: ESI 4312 or ESI 5316. Course covers linear and nonlinear optimization applications in production planning, staffing, engineering design, distribution networks, and other engineering areas. Focuses on practicing OR analysts.

## ESI 5451 ECS-IEMS 3(3,0)

Network Based Project Planning, Scheduling, and Control: PR: ESI 4312 or ESI 5316.
Probabilistic and determin-istic approaches for planning, scheduling, and controlling complex, large-scale projects. PERT, CPM, resource leveling, risk analysis.

ESI 5531 ECS-IEMS 3(3,0)
Discrete Systems Simulation: PR: STA 3032. Methods for performing discrete systems simulation, including network modeling, will be treated.

EST 4502C ECS-ENT 4(3,2)

Metrology and Instrumentation: PR: ETG 3541 or equivalent; EET 3085C or equivalent; and MAC 2253 or equivalent. An introduction to the basic concepts and terminology of metrology and instrumentation. Theory, procedures and techniques essential to industrial measurement and laboratory practice are covered.

## ETC 4206 ECS-ENT 3(3,0)

Construction Estimating: PR: MAC 1105, MAC 1114, EGN 1111C or equivalent, ETC 4241C, ETC 4242. Techniques of making estimates and computations of materials, labor, equipment, overhead costs and profits. Software packages are utilized.

ETC 4241C ECS-ENT 3(2,2)
Construction Materials and Methods: CR: ETG 3541. Construction principles, details, materials and methods used as related to the construction of buildings.

ETC 4242 ECS-ENT 3(3,0)
Construction Contracts and Specifications: The role of construction contracts, architectural specifications, product specifications, industry standards and building codes in the process of building construction.

ETC 4243 ECS-ENT $\mathbf{4}(4,0)$
Building Systems: PR: CET 2123C, EET 3085C, PHY 2053, ETM 4220, ETG 2530C, ETC 4241C, ETC 4242. Mechanical, electrical and electronic equipment and systems used in commercial/multi-story buildings. Fundamentals of air conditioning, lighting, and control systems are covered.

ETC 4414C ECS-ENT 3(2,2)
Applied Structural Design I: PR: ETG 2530C. Introduction to indeterminate analysis. Design of steel members, components and connections. Current code and specification requirements.

## ETC 4415C ECS-ENT 3(2,2)

Applied Structural Design II: PR: ETG 2530C. Strength design of reinforced concrete members, foundations, slabs, and walls. Current code and specification requirements.

ETD 3350C ECS-ENT 3(2,2)
Applied CADD: PR: Engineering Drawing and some CADD background. This course in computer-aided drafting/design provides the student with the opportunity to approach detailed and intricate drafting/design problems from a computer perspective.
ETG 3533C ECS-ENT 4(3,2)
Applied Engineering Strength of Materials: PR: MAC 1105, MAC 1114, ETG 3541, PHY 2053C, junior standing; CR: MAC 2253 or MAC 2311. Relation-ship between external forces and action of members of a structure. Topics include stress, shear, moment, deflections, columns, connections, and Mohr's circle.

Applied Mechanics: PR: MAC 1105 and MAC 1114 and PHY 2053C or equivalent. Coplanar, parallel, concurrent, and non-current force systems. Centroids, CG's, moments of inertia. Principles of dynamics, rectilinear motion and rotation, work, energy, power, impulse, momentum, and impact.

ETG 4950C ECS-ENT 3(1,4)
Senior Design Project: PR: ETG 3541, EST 4502C, ETG 2530C or C.I. Engineering Technology senior within 18 semester hours of graduation. Supervised individual or group projects involving project definition, planning, development, testing, and evaluation. Progress reports and a final oral presentation and formal written report are required.

ETI 3116 ECS-ENT 3(3,0)
Applied Engineering Quality Assurance: PR: MAC 1105, MAC 1114, and junior standing. Fundamentals of industrial quality control. Technical specifications, measurements standards, inspection, and gauging. Process control techniques.

ETI 3418C ECS-ENT 3(3,0)
Computer Numerical Controls - Machining Applications: PR: MAC 1105 and junior standing. Theory of methods and concepts for machining, computer numerical controls/programs, types of operations, cutting tools, machine tools, and electrical discharge machines.

ETI 3421 ECS-ENT 3(3,0)
Materials and Processes: PR: MAC 1105 and MAC 1114 or equivalent; Chemistry. A study of fundamental properties of materials. Current industrial practices in founding, forming, joining and shaping processes.

## ETI 3440 ECS-ENT 3(3,2)

Product Design: Principles of layout and dimensions for production. Consideration of design factors, standards, specifica-tions, and codes, with emphasis on productability.

## ETI 3651C ECS-ENT 3(2,2)

Computer Applications: PR: Junior standing and MAC 1105. Complete and comprehensive use of software applications for specific engineering uses. Problem solving techniques as related to industrial and engineering applications.

ETI 3671 ECS-ENT 2(2,0)
Technical Economic Analysis: PR: MAC 1105 or equivalent, Junior standing. Analysis of cost elements in technical operations. Basis for comparison of alternatives.

ETI 3690 ECS-ENT 3(3,0)
Technical Sales: PR: Junior standing or C.I. Application of technical knowledge to sales and service. Relationship of technical sales organization to production, customers, and competitors.

Applied Reliability: PR: ETI 2110. Practical application of reliability concepts and analysis applicable to the design, production and logistics phases of systems and system components.

ETI 4205 ECS-ENT $\mathbf{3}(\mathbf{3}, 0)$
Applied Logistics: PR: ETI 2110 or C.I. Introduction to logistics. Emphasis on practical applications. Includes systems engineering, cost/systems effectiveness, reliability, maintainability, system functional analysis, logistic support analysis, life cycle cost analysis.

## ETI 4448 ECS-ENT 3(3,0)

Applied Project Management: Statement of work, activity decisions, timelines, scheduling, and resource allocation methods. Techniques will be appropriate for large and small projects within commercial, academic, or non-profit organizations.

## ETI 4635 ECS-ENT 3(3,0)

Technical Administration: PR: MAC 1105 and Junior Standing. Techniques of applying management principles to pro-fessional positions held by Engineering Technologists. Management functions of planning, organizing, motivating, and controlling, production, sales, and service.

ETI 4640 ECS-ENT 3(3,0)
Process Planning and Work Measure-ment: PR: MAC 1105 and junior standing. Scheduling techniques (PERT), (CPM), are presented. Time Study Methods, Work Sampling and MTM are covered.

## ETI 4661C ECS-ENT 3(2,2)

Applied Facilities Planning and Design: PR: ETI 3421, engineering drawing and senior standing. The design of manufacturing facilities and material handling systems.

## ETI 4700 ECS-ENT 3(3,0)

Occupational Safety: PR: Junior standing. Accident prevention and the operation of an industrial safety program. Basic requirements of the Occupational Safety and Health Act standards.

## ETM 4220 ECS-ENT 4(4,0)

Applied Energy Systems: PR: MAC 2253 or MAC 2311; Chemistry, College Physics. Introduction to energy, work, and thermal systems and processes. Applications of heat energy with emphasis on solar energy.

ETM 4232C ECS-ENT 4(3,2)
Applied Heat Transfer: PR: ETG 3541 or equivalent, MAC 2253 or MAC 2311. An introduction to the basic concepts and applications of conduction, convection and radiation heat transfer. Basic energy balances and their applications are emphasized. Study state and transient phenomena are evaluated, including numerical solutions.

Applied Fluid Mechanics: PR: MAC 2253 or MAC 2311; PHY 2053C or equivalent. An introduction to the basic concepts of hydrostatics and hydro-dynamics covering fluid statics, flow of ideal fluids, continuity of mass, impulse and momentum principles, conservation of energy, flow of fluid in pipes, etc.

ETM 4403C ECS-ENT 3(2,2)
Applied Kinematics: PR: ETG 3541 and Engineering Drawing. Analysis and design of machine elements and mechanisms involving velocities and accelerations of components, linkages, gears, and cams.

## ETM 4512C ECS-ENT 3(2,2)

Applied Design of Machine Elements: PR: ETG 3541, ETG 2530C, and Engin-eering Drawing. Design of basic machine elements, including cams, gears, bearings, and coupling, taking into account loads, stresses, and strength of materials.

ETM 4755 ECS-ENT $\mathbf{4 ( 4 , 0 )}$
Applied Air Conditioning: PR: ETM 4331C. Analysis of body comfort, psychometrics, heating and cooling load, specification of air conditioning systems, air distribution systems and system piping requirements.

EUH 2000 AS-HIST 3(3,0)
Western Civilization I: A survey of western civilization from ancient to 1648.
EUH 2000H AS-HIST 3(3,0)
Honors Western Civilization I: Same as EUH 2000 with honors-level content.
EUH 2001 AS-HIST 3(3,0)
Western Civilization II: PR: EUH 2000 or C.I. A survey of western civilization from 1648 to present. May be taken before EUH 2000.

## EUH 2001H AS-HIST 3(3,0)

Honors Western Civilization II: Same as EUH 2001 with honors-level content.
EUH 3122 AS-HIST 3(3,0)
Medieval Society and Civilization: PR: EUH 2000 and 2001 or C.I.
EUH 3142 AS-HIST 3(3,0)
Renaissance and Reformation: PR: EUH 2000 and 2001 or C.I. Influence of Renaissance humanism on arts, letters, and politics; Luther and Protestantism; the Catholic Counter-Reformation and the Thirty Years' War.

Romanticism and Realism: PR: EUH 2000 and 2001 or C.I. Napoleon and nationalism; new ideas; conservation; liberalism, romanticism, republicanism and socialism; urbanization, technology and mass culture, religious decline; Realpolitik, racism, imperialism, and militarism.

## EUH 3242 AS-HIST 3(3,0)

Modern Europe and the First World War: A survey of the impact of the democratic institutions, education, transportation, housing, health, mass communications, entertainment, women, and warfare.

## EUH 3281 AS-HIST 3(3,0)

Second World War and Rebirth of Europe: PR: EUH 2000 and 2001 or C.I. Origins of World War II; Hitler's "New Order," and resistance movements; Cold War; de-Stalinization of Russia; Sovietization of East Central Europe; Western reconstruction, and prosperity.

## EUH 3315 AS-HIST 3(3,0)

History of Modern Spain: PR: Modern European History (18th-20th century). The evolution of Modern Spain through its key institutions, cultural as well as social movements, and impact of political and intellectual trends, 1700-Present.

## EUH 3411 AS-HIST 3(3,0)

Ancient Rome: PR: EUH 2000 and 2001 or C.I. Romans and their contributions to Western Civilization. Covers traditions of Roman Republic, Carthaginian Wars, Imperial Period.

## EUH 3431 AS-HIST 3(3,0)

History of Modern Italy: PR: EUH 2001. The history of modern Italy from the origins of national unification through the post-World War II era.

EUH 3451 AS-HIST 3(3,0)
History of Modern France: PR: EUH 2001, EUH 3242 or C.I. The course traces the evolution of France through the study of French political thought, institutional development, social movements, and international roles from 1700 - present.

## EUH 3651 AS-HIST 3(3,0)

War and Society: Evolution of weapons, tactics, strategy; role, social status, recruitment of soldiers; influence of military on governments; and international efforts to preserve peace.

## EUH 4284 AS-HIST 3(3,0)

Fascism and the Totalitarian Dictatorships: PR: EUH 2000 and 2001 or C.I. Totalitarian ideologies, institutions, and practices in Lenin's and Stalin's Russia. Mussolini's Italy, and Hitler's Third Reich; fascist movements in the non-totalitarian states.

## EUH 4465 AS-HIST 3(3,0)

Hitler's Third Reich: PR: EUH 2000 and 2001 or C.I. German nationalism and militarism; World

War I and Versailles Treaty; the Weimar Republic and the rise of the Nazis; Second World War, division and recovery.

## EUH 4500 AS-HIST 3(3,0)

English History to 1485: PR: EUH 2000 and 2001 or C.I.
EUH 4501 AS-HIST 3(3,0)
English History: 1485-1815: PR: EUH 2000 and 2001 or C.I.
EUH 4502 AS-HIST 3(3,0)
British History: 1815-Present: PR: EUH 2000 and 2001 or C.I.
EUH 4571 AS-HIST 3(3,0)
History of Russia to 1801: PR: EUH 2000 and 2001 or C.I. Kievan State; Mongol Yoke;
Development of Musco-vite Expansionism and Absolutism; Time of Troubles; Westernization of Russia under Peter I and Catherine; Role of Orthodox Church.

## EUH 4574 AS-HIST 3(3,0)

History of Russia: 1801-1917: PR: EUH 2000 and 2001 or C.I. Alexander I; Napoleonic Invasion, Revolutionary Movement; Russian Policy toward Central Asia and China; Great Reforms; Russo-Japanese War; Revolution of 1905; Constitutional Period; Triple Entente.

## EUH 4576 AS-HIST 3(3,0)

History of Russia in the 20th Century: PR: EUH 2000 and 2001 or C.I. War and Revolution, Lenin, Stalinist Period, WWII, The Cold War. Collapse of Soviet Union, the New Russia.

EUH 4582 AS-HIST 3(3,0)
20th Century Russian Diplomatic His-tory: PR: C.I. Russian diplomatic history from the signing of the Entente Cordiale to the aftermath of the Cold War.

EUH 4610 AS-HIST 3(3,0)
Women in European Society: From Medieval to Modern: PR: Junior standing or C.I. This course examines the changing situation of women in Europe from the Middle Ages to the twentieth century.

## EUH 4620 AS-HIST 3(3,0)

European Great Powers: 1815-1914: PR: EUH 2000 and 2001 or C.I. Congress of Vienna, Metternich's system Crimean War, unifications of Italy \& Germany, the Bismarckian era, the alliance systems, and the outbreak of World War I.

EUH 4621 AS-HIST 3(3,0)
War and International Politics in Europe, 1914 to Present: PR: EUH 2000 and 2001 or C.I. The relationship of the European Great Power from the outbreak of WWI to the present.

Colloquium in Europe from 1919-1939:
EUH 5285 AS-HIST 3(3,0)
Colloquium in Europe Since World War II:
EUH 5371 AS-HIST 3(3,0)
Colloquium in Spanish History:
EUH 5546 AS-HIST 3(3,0)
Colloquium: British History: PR: Graduate status. Selected topics in British history. May be repeated for credit when content is different. There is no standard syllabus because content is different with each offering.

## EUH 5579 AS-HIST 3(3,0)

Colloquium in Soviet Russia: PR: Senior standing or C.I. Reading and class discussion of the literature on selected topics in Russian history, 1911-present.

## EUH 5595 AS-HIST 3(3,0)

Colloquium in Czarist Russia: PR: Senior standing or graduate status. Selected topics on the literature of Russia under the Czars prior to 1917.

## EUH 5608 AS-HIST 3(3,0)

Colloquium European Intellectual History: PR: Senior standing or C.I. Reading and class discussion of the literature on selected topics of European intellectual history.

EVR 5930 AS-BIOL 1(1,0)
Seminar in Conservation Issues: PR: CI. Contemporary topics stressing a broad base of conservation issues will be the focus of this seminar series. May be repeated for credit, as course content will differ.

EVT 3062 ED-IP 3(3,0)
Professional Role of the Vocational Teacher: PR: EVT 3371 or C.I.
EVT 3312 ED-IP 4(4,0)
Course Construction in Health Occu-pations Education: PR: EVT 3365 or C.I. Planning and preparation of mat-erials, managing the laboratory and involvement in appropriate Vocational Student Organizations. Clinical instruc-tion related to vocational education and industry training.

EVT 3365 ED-IP 4(4,0)
General Methods/Testing Evaluation in Vocational Education: General teaching methods, testing and evaluation. Techni-ques specific to Vocational Education and Industry Training.

Evaluation of Vocational Instruction: PR: EVT 3371 or C.I. Study, practice, and achievement of competency in assessing student cognitive, affective, and psychomotor performance in vocational education.

EVT 3371 ED-IP 4(4,0)
Course Construction in Industrial Education: PR: EVT 3365 or C.I. Planning and preparing instructional materials, organizing and managing the Industrial Education laboratory, and involvement in VICA.

EVT 3502 ED-IP 4(4,0)
Special Needs of Vocational Students: PR: EVT 3365 or C.I. Achievement of teacher competency in meeting the special needs of the handicapped, culturally different, slower learner, those with basic skill deficiencies, and those in non-traditional programs.

EVT 4065 ED-IP 4(4,0)
Principles and Practices of Vocational Education: PR: EVT 3365 or C.I. Study of the history, structure, and current status of vocational education. Achievement of competency in applying principles of vocational education to vocational student organizations, advisory committees, and economic development.

EVT 4169 ED-IP 3(3,0)
Curriculum Development Techniques for Industry Training: The practical application of fundamental knowledge, important skills, alternative analysis methods, and the critical elements of the trainers analysis tasks.

EVT 4368 ED-IP 3(3,0)
Advanced Teaching Techniques for Vocational Education: PR: EVT 3365 or C.I. Study, practice, and achievement of techniques including cooperative learning, simulation, instructional modeling and evaluation of instructional effectiveness.

EVT $5260 \quad$ ED-IP 2-4(2-4,0)
Cooperative Programs in Vocational Education: PR: Regular Certificate or C.I. Study of cooperative vocational programs and achievement of competencies needed to establish, manage, and coordinate co-op program activities in all vocational areas.

EVT 5315 ED-IP 2-3(2-3,0)
Applied Clinical Teaching Techniques in Vocational Education: PR: Regular Certificate or C.I. Study and practice of clinical teaching methods, development of student performance assessment instruments, planning clinical learning experiences, and record keeping.

Student Guidance in the Vocational Program: PR: Basic Teacher Certificate or C.I. Achievement of skills used by teachers as they gather student data, confer with students, and help students plan for employment or further education.

EVT 5817 ED-IP 2-4(2-4,0)
Management of Vocational Programs: PR: Rank III Certificate or C.I. Study and achievement of selected competencies needed by vocational teachers, supervisors, and local administrators in the management of vocational education programs in the schools.

EXP 3204C AS-PSYCH 4(3,2)
Perception: PR: PSY 2013, PSY 3214. Consideration of physical and psychological variables in perceptual phenomena. Lecture/Lab.

EXP 3304 AS-PSYCH 3(3,0)
Motivation: PR: PSY 2013. Psychological and physiological aspects of human motivation.
EXP 3404 AS-PSYCH 3(3,0)
Basic Learning Processes: PR: PSY 2013. Theory and research on learning phenomena.

## EXP 3513 AS-PSYCH 3(3,0)

Cognitive Psychology: PR: PSY 2013. Theory and research on attention, memory, complex human learning, and problem solving.

EXP 4218L AS-PSYCH 2(0,4)
Experimental Laboratory in Human Memory and Cognition: PR: or CR: EXP 3513. A laboratory course providing in-depth coverage of experimental re-search on human memory and cognition.

EXP 5067 AS-PSYCH 3(3,0)
Human Factors and Aging: PR: Post-bac, Graduate status, or C.I. An overview of issues related to enhancing quality of life of elderly through the implementation of basic human factors principles in environmental and task design.

EXP 5208 AS-PSYCH 3(3,0)
Sensation and Perception: PR: C.I. A study involving human information processing with regard to physical and psychological variables in sensory and perceptual phenomena.

EXP 5256 AS-PSYCH 3(3,0)
Human Factors I: Survey of human factors literature. Introduction to topics including human capabilities and human interfaces with human-machine systems.

## EXP 5257 AS-PSYCH 3(3,0)

Human Factors II: PR: EXP 5256 (HFI). The second in the series of basic human factors courses involving an in-depth examination of issues.

Human Factors III: PR: EXP 5256, EXP 6257. The third in the series of basic human factors courses. Current topics in human factors, exchange of information on practical field experience in human factors.

## EXP 5445 AS-PSYCH 3(3,0)

Psychology of Learning and Motiva-tion: PR: DEP 5057 or C.I. Examination of theories and research concerning the acquisition and retention of behavior, as well as motivational factors which influence learning and behavior.

Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

## FIL 1001 AS-FILM 3(3,0)

Cinema Survey: Introductory course that focuses on different approaches to studying cinema.
FIL 2201 AS-FILM 3(3,0)
Foundations of Production: Production techniques for non-majors. Introduction to basic techniques used in film making. Students must supply their own video equipment and editing equipment. Any format is acceptable.

FIL 2400 AS-FILM 3(2,2)
History of Motion Pictures: The history of motion pictures as art and industry; from 1895 to the present.

FIL 3006 AS-FILM 3(3,0)
Art of the Cinema: An analysis of basic elements of cinematic style including film direction, editing, cinematography, art direction and sound.

FIL 3102 AS-FILM 3(3,0)
Writing for Film and TV: PR: ENC 1102, Junior Standing. Theories and process of screen writing for motion pictures and television. Students learn how to create stories and scripts for the entertainment marketplace.

Introduction to Scriptwriting: PR: Film majors only. Rudiments of scriptwriting, including visual storytelling, story structure, character, dialogue, and introduction to scriptwriting software.

FIL 3124 AS-FILM 3(3,0)
The Short Script: PR: Film major or a scriptwriting minor. Rudiments of writing the short script. Analysis of script models and examination of differences between long and short forms. Writing scripts for workshops.

FIL 3200C AS-FILM $\mathbf{3}(2,4)$
Introduction to Film Production: PR: Film majors or minors only. Introduction to production utilizing film equipment. Basic technical and aesthetic aspects of production.

FIL 3252C AS-FILM 3(3,1)
Cinematic Expression: PR: FIL 2400. Cinematography using video format; study of fundamentals of motion-picture
communication, film structure and storytelling.
FIL 3282C AS-ART 3(2,3)
Introduction to Cel Animation: PR: Animation major, or Film major with approved portfolio and drawing skills. Introduction to traditional cel animation. Drawing skills required.

FIL 3286C AS-ART 3(2,4)
Introduction to Computer Animation: PR: Animation majors only, FIL 3282C. Introductory computer graphic techniques utilizing microcomputer systems. Techniques include basic paint systems, color cycling and 2D animation.

## FIL 3287C AS-ART <br> 3(2,4)

Intermediate Computer Animation: PR: Animation majors only, FIL 3286C. Focus on 3D computer modeling and animation systems. Hands-on exercise on the type of high-end animation systems used in the film industry. May be repeated for credit.

FIL 3300 AS-FILM 3(3,0)
Film Documentary: PR: Film majors only. The uses and analysis of the non-fiction film.
FIL 3309 AS-FILM 3(3,1)
Women in Film: PR: Junior standing. A critical examination of how cinematic images of women affect cultural percep-tions and an overview of historically significant women filmmakers and related sociopolitical issues.

## FIL 3401 AS-FILM 3(3,0)

Film History to 1945: PR: Film majors or minors only. Examines film history in a depth of detail and
with rigor that is appropriate for majors in the subject. This course covers cinema history from 1895 to 1945.

## FIL 3402 AS-FILM 3(3,0)

Film History from 1945 to Present: PR: Film majors or minors only. Film history in a depth of detail and with rigor that is appropriate for majors in the subject. This course covers from 1945 to the present.

FIL 3410 AS-ART 3(3,0)
History of Animated Films: Survey from early animators to the development of the cartoon industry. Television animation included.

FIL 3412 AS-FILM $\mathbf{3}(\mathbf{3}, \mathbf{0})$
Black Cinema: PR: Junior Standing. Development of independent black film movements; theory, aesthetics and criticism of African-American, African-Canadian and African-Caribbean cinema; analysis of selected films.

FIL 3503 AS-FILM 3(3,1)
Film Theory and Criticism I: PR: Film major, FIL 2400. Major film theories to the Second World War Period.

FIL 3520 AS-LANG 3(3,0)
Italian Film: This course attempts to stimulate and/or increase the interest of students in Italian cinema as an art form with the director playing the key role. Films by most outstanding Italian movie directors will be analyzed from a social, economic, and historical point of view.

FIL 3521 AS-LANG 3(3,0)
French Film: The study of French cinema as an art form and the key role of the director. Films are analyzed from structural, social, economical, and historical perspectives with attention to their relationship with French literature. Taught in English.

## FIL 3522 AS-LANG 3(3,0)

German Film: PR: C.I. Exploration of the form and context of German film during different time periods in relation to other aspects of culture and to sociopolitical structures at the time.

## FIL 3922 AS-FILM 1(1,1)

Film Colloquium: PR: Film majors only. A series of lectures, films and forums designed for students in the film program. The class is team taught by film faculty and guest speakers from the film industry. $\mathrm{S} / \mathrm{U}$ grade only. Course may be repeated.

FIL 4103 AS-FILM 3(3,0)
Adaptation: PR: FIL 3106C. This class explores the process of adapting scripts from other sources. Students will investi-gate the legalities of adaptation, analyze existing models, and write adaptations.

Feature/TV Writing I: PR: FIL 3106C. Writing workshop, examination of mythic storytelling, and ethics of scriptwriting.

## FIL 4112C AS-FILM 3(2,3)

Advanced Scriptwriting: PR: Film major, FIL 3106C. Advanced writing workshops, principles and methods of adaptation and reader's coverage.

## FIL 4113C AS-FILM 3(2,3)

Scriptwriting Workshop: PR: Film major, FIL 3106C. Writing workshop for experienced scriptwriters, cold readings, preparing calling card script, marketing scripts and funding sources.

## FIL 4114 AS-FILM 3(3,0)

Interactive Writing II: PR: FIL 3102, FIL 4121 or C.I. Students revise, refine, and complete a full-length script. Open only to non-majors. May be repeated for credit.

FIL 4121 AS-FILM 3(2,3)
Comedy Writing: PR: Film major, FIL 3102, FIL 4121. Intensive workshop in comedy writing for film and television. Work on story pitches, outlines, and complete scripts for 30-minute television series.

## FIL 4202C AS-FILM 3(2,4)

Intermediate Film Production: PR: Film major, FIL 3200C. Advanced exploration of the aesthetic and technical facets of filmmaking.

## FIL 4203C AS-FILM 3(2,4)

Capstone I: PR: Film major, FIL 3200C, FIL 4202C. Intensive tutorial guidance, instruction and evaluation of final film projects from initial concept through production.

## FIL 4207 AS-FILM 3(3,0)

Episodic Production: PR: Film or Animation Majors. Episodic film production techniques.
FIL 4208 AS-FILM 3(3,0)
Directing II: PR: Film major, FIL 4202C, FIL 2XXX (Directing I). Princi-ples and practice in directing narrative and/or documentary motion pictures.

FIL $4210 \quad$ AS-FILM $\mathbf{3}(2,4)$
Cinematography: PR: Film major, FIL 3200C. Advanced principles and practices of cinematography.
FIL 4211 AS-FILM 3(1,3)

Post-Production Workshop: PR: Film major, FIL 4202C. This class will provide students with a
thorough understanding of the process of producing in film and posting on state of the art equipment.
FIL 4212 AS-FILM $\mathbf{3}(0,4)$
Sound Design: PR: FIL 4207, FIL 4202C. Post-production sound for films and video, including voice over music, music, sound effects, sound design, and automated dialogue replacement. Exercises will be edited and mixed on a computer work station.

## FIL 4213C AS-FILM 3(3,2)

Editing: CR: FIL 4203C. For Film majors only. Theory, techniques and practices in picture editing.
FIL 4223 AS-FILM 3(3,0)

Design for Film: PR: Film major, FIL 3200C, FIL 4202C. Analysis of visual structure of film. Specific problems in art direction.

FIL 4262C AS-FILM 4(3,2)
Special Problems in Film Design: A series of exercises in craft, techniques, and design for film production, including animation.

FIL 4283C AS-ART 3(2,4)
Intermediate Cel Animation: PR: Animation majors only, FIL 3282C. Production from storyboard to composite print. May be repeated for credit.

FIL 4288C AS-ART 3(2,4)
Advanced Computer Animation: PR: Animation majors only, FIL 3286C and FIL 3287C.
Advanced 3D modeling and animation techniques. Working in small production teams, students will create short animated segments using a high-end 3D animation system. May be repeated for credit.

FIL 4289C AS-ART 3(2,4)
Computer Animation Workshop: PR: Animation majors only, FIL 3286C, FIL 3287C, FIL 4288C, or C.I. A production level course in computer animation that emphasizes all phases of the commercial production process, including storyboard, budgets, client relations, and post-production. May be repeated for credit.

FIL 4293C AS-ART 3(2,4)
Advanced Cel Animation: PR: Animation majors only, FIL 4283C. Production from storyboard to composite print from pre-recorded sound track. May be repeated for credit.

FIL 4294C AS-ART 3(2,4)
Cel Animation Workshop: PR: Animation majors only, FIL 4283C. Production from storyboard to composite print from pre-recorded sound track. May be repeated for credit.

## FIL 4504 AS-FILM 3(2,2)

Motion Picture Genre/Aesthetics: PR: Film major, FIL 3503. Analysis and eval-uation of films;
major genres, directors, styles, or periods considered in depth.
FIL 4602 AS-FILM 3(3,0)
Film Business: PR: Film major, FIL 3207, FIL 4201. This is a seminar course taught by a professional in the film industry which deals with issues relating to the organization and production of motion pictures.

## FIL 4604 AS-FILM 3(3,0)

The Film Producer: PR: Film major, FIL 4208. The role of the producer is examined in the context of theatrical film.

FIL 4607 AS-FILM 3(3,0)
Film Production Management: PR: Film major, FIL 3200C. Production, budgeting, script breakdown, construction of production boards, scheduling, location scouting, and crew procurement.

FIN 3140 BA-FIN 3(3,0)
Personal Finance and Investments: PR: Junior standing. Fundamentals of managing and investing one's money and acquiring, safeguarding, and disposing of one's assets. Not usable for credit by Finance majors.

FIN 3303 BA-FIN 3(3,0)
Financial Markets: PR: FIN 3403. The role of short and long-term financial markets and financial institutions in capital formation and allocation. Theories and mathematics of interest rates.

FIN 3403 BA-FIN 3(3,0)
Business Finance: PR: ACG 2021, ACG 2071, (or ACG 2023), ECO 2013 and ECO 2023. With the balance sheet as a reference point, this course provides an introduction and overview of the acquisition, financing, and management of business assets.

FIN 3403H BA-FIN 3(3,0)
Business Finance Honors: PR: ACG 2021, ACG 2071, ECO 2013, admission to the Honors Program. Same as FIN 3403 with honors level content.
FIN 3414
BA-FIN
3(3,0)

Intermediate Corporate Finance: PR: FIN 3403. In-depth study of the principles of corporate finance. Investment, financ-ing, and capital decisions are examined.

FIN 3504 BA-FIN 3(3,0)
Investment Analysis: PR: FIN 3403. A survey of investments, including security markets, investment vehicles, and environment. Principles of asset valuation in efficient markets.
FIN 4313 BA-FIN 3(3,0)

Management of Financial Institutions: PR: FIN 3303 and FIN 3403. Analysis of management
policies of financial institu-tions, including assets liability, and capital management. The economics and regulatory influence on competition is considered.
FIN 4324 BA-FIN 3(3,0)

Commercial Bank Management: PR: FIN 3303. Analysis of the intersections of commercial banking policies and an analysis of current approaches to managing specific bank products.

## FIN $4424 \quad$ BA-FIN <br> 3(3,0)

Advanced Topics in Financial Management: PR: FIN 3414 and FIN 4453. Advanced study in financial management. Topics include capital budgeting, financial structure, and capital decisions. Case studies used extensively.

FIN 4453 BA-FIN 3(3,0)
Financial Models: PR: FIN 3403, FIN 3414, and FIN 3504. Mathematical models applied specifically to financial problems, including those models suitable for representation and solutions on computers.

FIN 4514 BA-FIN 3(3,0)
Portfolio Analysis and Management: PR: FIN 3303 and FIN 3504. Portfolio and capital market theory in the determination of rational investment policies. Risk analysis, portfolio analysis, and evaluation techniques.

FIN 4533 BA-FIN 3(3,0)
Speculative Financial Markets: PR: FIN 3303 and FIN 3504. Study of options, futures, forward, and other speculative markets. Investments traded in these mar-kets are examined analytically. Pricing and hedging models are considered.

FIN 4604 BA-FIN 3(3,0)
International Financial Management: PR: FIN 3303, FIN 3414 and FIN 3504. Analysis of the foreign financial methods and investment, currency futures market, capital budgeting, cash management, examination of Eurocurrency market and international bond markets.
FIN 4730 BA-FIN 3(3,0)

Senior Financial Consulting I: PR: FIN 3403, FIN 3303, CR: FIN 3414, FIN 4453. Project management in a collabora-tive, interdisciplinary team environment. Incorporates financial problem solving, design and consulting in projects for major corporations. Part 1 of a two course sequence. Students must register for both semesters.
FIN 4731 BA-FIN 3(3,0)

Senior Financial Consulting II: PR: FIN 4730. Project management in a collabora-tive, interdisciplinary team environment. Incorporates financial problem solving, design, and consulting in projects for major corporations. Part 2 of two semester course sequence. Students must register for both semesters.

Finance Internship: PR: Finance Major; consent of department chair. Supervised finance-related work experience in a pre-approved sponsoring organization. See department for information/application.

FIN 5405 BA-FIN 3(3,0)
Financial Concepts: PR: Acceptance into the graduate program, ACG 5005 and ECO 5005 and ECO 5415 or equivalents. Effects of financial decisions upon the firm, interrelationships of these effects and alternatives available to financial managers in making these financial decisions.

## FIN 5407 BA-FIN 1.5(1.5,0)

Financial Foundations: PR: Acceptance to Graduate Study, ACG 5005 and ECO 5XXX (Economic Foundations). Effects of financial decisions upon the firm, inter-relationships of these effects and alterna-tives available to financial managers in making these financial decisions.

FLE 3160 ED-IP 3(3,0)
Education and Culture/Language Diversity: PR: Admission to major, over-all 2.5 GPA, 3.0 GPA in major, and C.I. A cross-cultural field experience which includes cultural and language immer-sion. Theoretical and applied knowledge of culture and language diversity
FLE 4290
ED-IP
2(2,0)

Technology in the Foreign Language classroom: PR: EME 2040, EDG 4323. Applications of technology in the foreign language classroom including uses of the Web, e-mail, chat, electronic portfolios, electronic curriculum planning tools, and software. May be repeated for credit.

## FLE 4314 ED-IP 3(3,0)

Foreign Language Teaching in Elementary Schools: Methods of planning and teaching foreign languages in the elementary school. The emphasis is on teaching communicatively and on integrating culture in the K-6 classroom.

## FLE 4333 ED-IP 3(3,0)

Foreign Language Teaching in the Secondary School: PR: EDG 4323, proficiency in the target language and English. Methods of teaching foreign languages at the secondary level within a communicative framework. Current instructional techniques in listening, speaking, reading, and writing skills, testing, error correction. May be repeated for credit.

## FLE 5335 ED-IP 3(3,0)

Foreign Language Methods at the Elementary Level: PR: C.I. or FLE 4333 or FLE 5870, EDG 4323 or EDG 6236, and fluency in target language and Eng-lish. Methods of planning and teaching foreign language at the elementary level. The emphasis is on teaching communica-tively and on integrating culture in the K-6 classroom. May be repeated for credit.
FLE 5870 AS-LANG 3(3,0)

Methods of Teaching Foreign Languages: PR: Graduate Standing or C.I. This course introduces prominent theories and applied research in the field of second language acquisition. It also offers guidance in the practical matters of teaching lower division language courses at university and community college levels.

FLE 5875 AS-LANG 3(3,0)
Computer Application in Teaching Foreign Languages: PR: Graduate Standing or C.I. Survey, analysis, and evaluation of computer software and Internet materials for teaching foreign languages.

FOL 3730 AS-LANG 3(3,0)
Romance Philology: The study of the major Romance Languages and their origins as they developed from Classical and Medieval Latin to their linguistic influences such as Arabic and Provencal.

FRE 1005 AS-LANG 1(1,0)
French Diction: This course is especially designed for music and voice students, with an emphasis on musical terms, French songs, and opera libretti.

FRE 1120 AS-LANG 4(4,1)
Elementary French Language and Civilization I: Introduces the student to French culture through the major lan-guage skills: listening, speaking, reading and writing. Open only to students with no experience in the language.

FRE 1121 AS-LANG 4(4,1)
Elementary French Language and Civilization II: PR: FRE 1120 or exper-ience with this language. Continuation of FRE 1120.

FRE 2200 AS-LANG 3(3,1)
Intermediate French Language and Civilization I: PR: FRE 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.

FRE 2201 AS-LANG 3(3,1)
Intermediate French Language and Civilization II: PR: FRE 2200 or equivalent. Continuation of FRE 2200 with emphasis on French civilization.

FRE 2240 AS-LANG 3(3,0)
Intensive French Conversation: PR: One year of French or equivalent. Practical use of the language, leading toward fluency and correctness in speaking.

FRE 2270 AS-LANG 8(16,10)
Intermediate French Study Abroad: PR: Elementary French. Intermediate French language and civilization taught in the native environment.

FRE 3300 AS-LANG 3(3,0)

French Grammar: PR: FRE 2201. An in-depth review of the structures of French for students who intend to take French literature courses.

## FRE 3410 AS-LANG 2(2,0)

Advanced Oral French: PR: 2 years college level French or equivalent. Intensive practice of French conversation using video and filmstrips as stimulus of individual and group discussions.

## FRE 3420 AS-LANG 3(3,0)

French Composition: PR: FRE 2201 or equivalent. Development of skills in composition.
FRE 3423 AS-LANG 2(2,0)
Advanced French Grammar: PR: 2 years of college level French or equivalent. Intensive oral drills and exercises make students practice and review the grammatical structures which are necessary for correct and cultural French speech.

FRE 3440 AS-LANG 3(3,0)
Business French I: PR: Three semesters of French language. Introduces vocabulary and terminology in various French business activities, as well as standards, procedures, and practices of the French business world.

FRE 3441 AS-LANG 3(3,0)
Business French II: PR: FRE 3440 or C.I. Introduction to French business language and practices.
FRE 3760 AS-LANG 3(3,0)
Advanced French Oral Communica-tion: PR: FRE 2201 or equivalent. Voca-bulary building with systematic training in diction and locution. Speeches and oral presentations as well as production and delivery of real-life dialogues.

FRE 3780 AS-LANG 2(2,0)
Advanced French Phonetics and Diction: PR: 2 years of college level French or equivalent.
Intensive exercises in French phonetics and diction with both prose and poetry with particular emphasis on difficulties for speakers of English.

FRE 4421 AS-LANG 3(3,0)
Advanced French Conversation: Advanced conversation on directed topics from various disciplines; literature, art, psychology, philosophy, music, business, and the sciences.

FRE 4422 AS-LANG 3(3,0)
Advanced French Composition: PR: FRE 3420. Readings and written imitations of modern literary styles in the form of themes, sketches, poems, and original stories.

FRE 4500 AS-LANG 3(3,0)
French Civilization and Culture: PR: FRE 3420. A survey analyzing development of key elements
of French life: its historical, artistic, intellectual, scientific, and spiritual contributions to the world via readings, lectures, films, and other media. Conducted in French.

FRE 4503 AS-LANG 2(2,0)
Quebecois Civilization: PR: 2 years of college level French or equivalent. An introduction to the main epochs and events in the history of the French civilization in North America with particular emphasis on Quebec.

FRE 4780 AS-LANG 3(3,0)
French Phonetics and Diction: French phonology, with emphasis on phonic groupings.
FRT 4552 AS-LANG 3(3,0)
Structural Analysis of Beckett's Watt: PR: ENC 1102. An intense study of textual criticism and explications and linguistic analysis of literature with the primary focus on the novel. Course will be taught in English.

FRW 3100 AS-LANG 3(3,0)
Survey of French Literature I: PR: FRE 2201 or equivalent. Main literary currents and works from the Middle Ages through the 18th century.

FRW 3101 AS-LANG 3(3,0)
Survey of French Literature II: PR: FRE 2201 or equivalent. Main literary currents and works of the 19th and 20th centuries.

FRW 3370 AS-LANG 3(3,0)
Short Stories of 18th, 19th and 20th Centuries: PR: FRE 2201 or equivalent. Selected readings designed to increase reading speed and develop analytical abilities. Authors include: Voltaire, Maupassant, Flaubert, Camus, and others.

FRW 3740 AS-LANG 3(3,0)
The French Literature of Canada: PR: FRE 2201 or equivalent. A survey of the French literature of Canada from the late 19th century to the present, with particular emphasis on the novel and short story.

## FRW 3770 AS-LANG 3(3,0)

Francophone Literature: PR: Proficiency in French at the third year level. The literature of the Francophone world. Students will read, analyze and discuss literary works written in French.

FRW 4281 AS-LANG 3(3,0)
20th Century French Novels: PR: FRW 3100 or FRW 3101 or equivalent. Contemporary French Novel. Will focus on post-war authors, both traditional and avant-garde, such as Bazin, Beckett, Butor, Camus, Mauriac, Malraux and Sarraute.

Seventeenth Century French Theatre: PR: FRW 3100. Corneille, Racine, and Moliere. A study of the lives and principal works of the authors.

FRW 4324 AS-LANG 3(3,0)
20th Century French Drama: PR: FRW 3100 or FRW 3101 or equivalent, or C.I. Concentration on traditional and avant-garde theater after WWII, such as the works of Beckett, Camus, Claudel, Ciraudoux, Ionesco, and Sartre; different literary approaches will also be used.

FRW 4440 AS-LANG 3(3,0)
French Literature of the Eighteenth Century: PR: FRW 3100. The philosophical movement: Montesquieu, Vauvenargues, Voltaire, Diderot, Buffon.

FRW 4532 AS-LANG 3(3,0)
French Romanticism: PR: FRW 3100. Great poets and dramatists of the Romantic Movement: Hugo, Lamartine, Vigny, Musset, and others.

FRW 4552 AS-LANG 3(3,0)
Nineteenth Century French Literature: PR: FRW 3101. Realism and naturalism.
FRW 4820 AS-LANG 3(3,0)
Stylistics: PR: FRE 3420 or equivalent. An intense study of textual criticism. An examination of the relationship between language and literature; explications and linguistic analysis of literary texts.

## FSS 2221C UCF-HOSP 3(3,1)

Quantity Food Preparation: PR: HFT 1000. Basic principles of food and beverage preparation, service, and menu development.

FSS 3124 UCF-HOSP 3(3,0)
Supply and Procurement Management: PR: HFT 1000. The purchasing procedures, specifications, and controls of food and related products in the hospitality industry.

FSS 3232C UCF-HOSP 3(1,3)
Intermediate Techniques of Food Production: PR: HFT 4250C. An advanced food production course which provides the student the opportunity to develop skills in pantry, gardŽmanager, garnishing, and convenience foods and services. Laboratory class.

FSS 4135 UCF-HOSP 3(3,0)
Contract Food Service Management: PR: Junior standing. The organizational and management characteristics of the noncommercial contract and recreational food service industry. Management of food services in venues such as corporations, health care, schools, arenas, concessions, and vending.

## FSS 4286C UCF-HOSP 3(3,1)

Catering and Banquet Organization: PR: HFT 4250C. Methods and procedures for successful on service and sales techniques. Laboratory class.
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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

## GEA 4206 ECS-CEE 3(3,0)

Physical Geography of North America: Analysis of the North American landscape as affected by climate, vegetation, and geomorphology.

## GEB 1091C BA-BUS 2(1,1)

Foundations of Leadership: PR: LEAD Scholars Program. Seminar for LEAD Scholars in the College of Business providing a foundation of leadership, scholarship, and service regarding disciplines in the college.

GEB 2011 BA-MAN 3(3,0)
Management: PR: Junior standing. The interdisciplinary application of the managerial functions of planning, organizing, leading, and controlling. For Non-Business Major ONLY.

GEB 3031 BA-MAN 6(6,0)
The Cornerstone Course: PR: ACG 2071, ECO 2014, ECO 2023, and CGS 2100. An orientation to opportunities and challenges facing managers in contemporary business organizations. Introduces competencies of team work, communication, creative thinking, and adapting to change.

## GEB 4361 BA-FIN 3(3,0)

Business in the International Environ-ment: PR: FIN 3403, MAR 3023, MAN 3025. Provides an overall understanding of the nature, magnitude, and importance of the international business sector.

Professional Business Practicum: PR: Acceptance to Graduate Study. The practicum is to provide a professional business work experience for students entering the MBA program without such experience.

GEO 1200 ECS-CEE 3(3,0)
Physical Geography: Basic physical elements of geography, including climate, landforms, soils, natural vegetation, minerals, and their integrated patterns of world distribution.

GEO 1200L ECS-CEE 1(0,2)
Physical Geography Laboratory: CR: GEO 1200. Analysis of climatic and meteorology methods topographic and geological maps, landforms, and landscape interpretation.
GEO 2370 ECS-CEE 3(3,0)
Resources Geography: Analysis of basic principles and problems associated with development, use, conservation, and management of natural resources, with special emphasis on the United States.

## GEO 2370H ECS-CEE 3(3,0)

Resources Geography (Honors): Analysis of human management of global resources and the resulting impact on the world's environment.

GEO 3470 AS-POLS 3(3,0)
World Political Geography: Analysis of factors which affect power relations among nations, including area, location, political styles, ethnic divisions, and the politics of energy.

## GEO 4131C ECS-CEE 3(2,2)

Remote Sensing of the Environment: PR: GEO 1200 or C.I. Interpretation and application of remote sensor imagery to physical, economic, and urban analysis.

GER 1005 AS-LANG $\mathbf{1}(0,1)$
German Diction: This course is especially designed for music and voice students, with an emphasis on musical terms, German songs, and opera libretti.

## GER 1120 AS-LANG 4(4,1)

Elementary German Language and Civilization I: Introduces the student to German culture through the major lan-guage skills: listening, speaking, reading and writing. Open only to students with no experience in this language.

## GER 1121 AS-LANG 4(4,1)

Elementary German Language and Civilization II: PR: GER 1120 or equivalent. Continuation of GER 1120.

Honors Elementary German Language and Civilization I: Introduces the student to German culture through the major language skills: listening, speaking, reading and writing. Open only to students with no experience in this language. Honors level content.

## GER 1131H AS-LANG 4(4,1)

Honors Elementary German Language and Civilization II: PR: GER 1120H or equivalent. Same as GER 1121 with honors-level content.

GER 2200 AS-LANG 3(3,1)
Intermediate German Language and Civilization I: PR: GER 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.

## GER 2201 AS-LANG 3(3,1)

Intermediate German Language and Civilization II: PR: GER 2200 or equivalent. Continuation of GER 2200 with emphasis on German civilization.

GER 2210 AS-LANG 3(3,0)
Intensive German Conversation: PR: GER 1121 or C.I. Practical use of the language, leading toward fluency and correctness in speaking.

GER 2240 AS-LANG 3(3,0)
German Conversation: PR: GER 2201 or equivalent. Development of skills in conversation and comprehension through practice.

GER 2270 AS-LANG 6(6,0)
Intermediate German Study Abroad: PR: GER 1121 or equivalent. Intermediate German language and culture taught in the native environment.

GER 2271 AS-LANG 2(2,0)
Modern German Civilization Abroad I: PR: One year of College-level German. Key elements of German life: its artistic, intellectual, scientific, and spiritual con-tributions to the world via guest lecturers, readings, films, and other media. In German.

GER 3100 AS-LANG 3(3,0)
Germany - Past to Present: PR: GER 3760 or GER 3420 or equivalent. Cultural development that shaped modern Germany. Students will read and discuss selected texts from different literary periods and view the influences they had on culture and daily life. Course conducted in German.

GER 3272 AS-LANG 2(2,0)
Modern German Civilization Abroad II: PR: GER 2201 or equivalent. Key elements of German life: its artistic, intellectual, scientific, and spiritual contributions to the world via guest lecturers, readings, films, and other media. In German.

Intensive German Composition: PR: GER 2201 or equivalent. Development of skills in composition.

## GER 3440 AS-LANG 3(3,0)

Business German I: PR: GER 2200. Introduction to German business language and practices.
GER 3441 AS-LANG 3(3,0)
Business German II: PR: GER 3440. Continuation of Business German I.
GER 3470 AS-LANG 6(6,0)
Advanced German Study Abroad: PR: GER 2201. Advanced German grammar in the context of conversation and composition taught in the native environment.

GER 3760 AS-LANG 3(3,0)
Advanced German Oral Communica-tion: PR: GER 2201 or equivalent. Voca-bulary building with systematic training in diction and locution. Speeches and oral presentations as well as production and delivery of real-life dialogues.

GER 3780 AS-LANG 3(3,0)
German Phonetics and Diction: PR: GER 2240. The fundamental principles of German pronunciation.

## GER 4510 AS-LANG 3(3,0)

Life and Culture in Nazi Germany: PR: C.I. Confrontation with the development of national socialist ideas and their realization in everyday life and culture. Given in German.

## GER 4520 AS-LANG 3(3,0)

Modern Germany: PR: Given in German. An introduction to the history of postwar Germany from the two German-ies to unification and today's Germany.

GEW 3100 AS-LANG 3(3,0)
Survey of German Literature I: PR: GER 2201 or equivalent. Main literary currents and works from the Middle Ages through 19th Century Romanticism.

GEW 3101 AS-LANG 3(3,0)
Survey of German Literature II: PR: GER 2201 or equivalent. Main literary currents and works from 19th Century Realism to the present.

GEW 3370 AS-LANG 3(3,0)
Short Story: PR: GER 2201 or equivalent. German short prose works of the 19th and 20th centuries.

German Post-War Literature: PR: GER 2201. This course examines the works of German, Austrian and Swiss writers after World War II.

GEW 4482 AS-LANG 3(3,0)
German Children's Literature: PR: GER 2200. A look into the history of German children's literature with a concentration on works after World War II.

GEW 4531 AS-LANG 3(3,0)
The Age of Goethe and Schiller: PR: GER 2201. Selected texts of Goethe and Schiller are examined, with particular attention to their relationship to both German classicism and German romanticism.

GEY 3001 HPA-HPA 3(3,0)
Gerontology: An Interdisciplinary Overview: PR: Junior standing or C.I. Study of aging from an interdisciplinary perspective that bridges social and behavioral sciences, nursing, social work, allied health, and natural sciences. May be repeated for credit.

GEY 5648 AS-PSYCH 3(3,0)
Gerontology: An Interdisciplinary Approach: PR: Post-baccalaureate or graduate status or C.I. The study of aging will be presented from man interdisciplin-ary and multidisciplinary approach spanning the social sciences and health.

## GLY 1030 AS-CHEM 3(3,0)

Geology and its Applications: Geologic principles, applications, and hazards including: gemstones, rock cycle, moving continents, mountain building, metal ores, fossil fuels, groundwater, sinkholes, beach erosion, landslides, earthquakes, tidal waves, volcanism.

## GRE 1120H AS-LANG 4(4,0)

Elementary Greek Language and Civilization I: Introduces students to Classical Greek Literature and civilization through the study of grammar and syntax and extensive readings of Greek texts.

GRE 1121H AS-LANG 4(4,0)
Elementary Greek Language and Civilization II : PR: GRE 1120H. Continuation of Elementary Greek I.

## GRE 2230H AS-LANG 4(4,0)

Introduction to Greek Literature: PR: GRE 1121H. Readings in selected original Greek texts, e.g., Plato's apology. May be repeated for credit.
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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{A}| \underline{B}|\underline{C}| \underline{D}|\underline{E}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

HBR 1120 AS-JUD 4(4,0)
Elementary Modern Hebrew Language and Culture I: Designed to initiate the student to the major language skills; listening, speaking, reading and writing, as well as to constitute an introduction to Israeli culture.

HBR 1121 AS-JUD 4(4,0)
Elementary Modern Hebrew Language and Culture II: PR: HBR 1120 or equivalent. Continuation of HBR 1120.

HBR 2200 AS-JUD 3(3,0)
Intermediate Modern Hebrew I: PR: HBR 1121 or equivalent. Designed to continue the study of Modern Hebrew; increase proficiency in conversation, reading and writing skills, and further expose students to Israeli culture.

## HFT 1000 UCF-HOSP 3(3,0)

Introduction to the Hospitality and Tourism Industry: An orientation to the hotel, restaurant, and travel industry, and its history, structure, and operating procedures.

HFT 2220 UCF-HOSP 3(3,0)
Hospitality Human Resources Management: Application of strategic principles of human resources to the hospitality tourism setting.

Lodging Operations: Basic principles of operating a lodging facility including accounting, housekeeping, engineering, front desk, and guest services.

## HFT 2403 UCF-HOSP 3(3,0)

Hospitality Industry Financial Accounting: Basic understanding of financial accounting and specifically hospitality industry accounting concepts and procedures used in hotels, restaurants and clubs.

## HFT 2444 UCF-HOSP 3(3,0)

Hospitality Information Systems: Impact of management information systems on the hospitality industry; includes development and deployment of property management systems.

HFT 2500 UCF-HOSP 3(3,0)
Hospitality and Tourism Marketing: PR: MAR 3023. The application of marketing concepts to the Hospitality and Tourism Industry. Special emphasis on marketing planning and strategic marketing.

## HFT 2750 UCF-HOSP 3(3,0)

Meeting, Convention And Exposition Industry: Overview of meetings, conventions, and expositions including the roles of organizations and people involved in the businesses that comprising this industry.

HFT 3261 UCF-HOSP 3(3,0)
Restaurant Management: PR: HFT 1000, Junior standing. Discussion of the topics integral for the successful management of restaurant and food service organizations.

## HFT 3274 UCF-HOSP 3(3,0)

Principles of Resort Timesharing: PR: HFT 1000. Principles of resort timeshare operations and ownership.

## HFT 3313 UCF-HOSP 3(3,0)

Hospitality Physical Plant Management: PR: Junior standing. Analysis of operational problems related to the physical plant and structure of enterprises in the hospitality industry.

HFT 3431 UCF-HOSP 3(3,0)
Hospitality industry Managerial Accounting: PR: HFT 2403. Presentation, interpretation, and analysis of internal and external hospitality industry financial reports affecting management decisions using hospitality industry systems of accounting.

## HFT 3471 UCF-HOSP 3(3,0)

Hospitality Enterprises I: PR: Financial Accounting, Managerial Accounting, Computer Competency, Junior standing. Acquaints students with presentation, interpretation and analysis of
hotel financial reports. Presents hotel operations cost controls. Explores hospitality MIS.

## HFT 3511 UCF-HOSP 3(3,0)

Convention and Conference Sales: PR: HFT 2750. In-depth understanding of the sales process for the convention market. Covers the people, methods, materials and equipment needed.

HFT 3540 UCF-HOSP 3(3,0)
Guest Services Management I: CR: Junior standing. The study of making decisions from the guest's point of view in the hospitality industry.

HFT 3600 UCF-HOSP 3(3,0)
Legal Environment in the Hospitality and Tourism Industry: PR: C.I. Principles of law as related to the Hospitality/Tourism Industry.

## HFT 3700 UCF-HOSP 3(3,0)

Tourism Management: PR: HFT 1000, Junior standing. Analysis of the tourism phenomenon in contemporary societies. An exploration of major concepts about tourism as an inter-linked industry composed of many sectors within both the private and public sectors.

## HFT 3741 UCF-HOSP 3(3,0)

Meeting Planning: PR: HFT 2750. The process of meeting planning, from setting objectives to analyzing the success of the event.

## HFT 3757 UCF-HOSP 3(3,0)

Event Management: PR: HFT 1000, Junior standing. Reviews the role and scope of events in the hospitality industry, as well as the process of planning, organizing, and managing events.

## HFT 3785 UCF-HOSP 3(3,0)

Management of Gaming Enterprises: PR: Junior level standing. an in-depth study of gaming-based organizations including cruise ships, Indian reservation casinos, and others. The history and development of gaming organizations, the economics, social, and cultural impact of gaming and managerial challenges and opportunities in the industry.

## HFT 3807 UCF-HOSP 3(3,0)

Multi-Unit Food Service Operations: PR: HFT 1000 or C.I. The strategy and managerial aspects of chain restaurant management, including organization development, brand building, and industry segments.

## HFT 3933 UCF-HOSP 1(1,0)

Distinguished Lectures in Hospitality Management: PR: HFT 1000, Junior standing. First hand introduction to hospitality leaders, their perspectives on the segments they represent, and the breadth of those segments.

Cooperative Education: Provides paid, pre-professional work experience related to the students' major while they continue to attend school. Requires achievement of major-related learning objectives.

## HFT 4250C UCF-HOSP 3(3,1)

Hospitality Operations: PR: Junior Standing or C.I. An integration of lodging and food service operations providing students with a comprehensive knowledge of these related content areas; food service lab component.

## HFT 4266 UCF-HOSP 3(3,0)

Restaurant Brand Management: PR: HFT 3261. Exploration of the principles of brand management for the corporate restaurant industry.

## HFT 4268 UCF-HOSP 3(3,0)

Case Studies in Multi-Unit Restaurant Management: PR: HFT 3261. Application of case study methodology to
advanced topics in restaurant and food service management.

## HFT 4274 UCF-HOSP 3(3,0)

Vacation Ownership Resort Manage-ment: Comprehensive analysis of applied theories, principles, and techniques used in the management of vacation resorts.

## HFT 4275 UCF-HOSP 3(3,0)

Development of Vacation Ownership Resorts: PR: HFT 4473 or C.I. Comprehensive analysis of applied theories, principles, and techniques used in the planning and development of vacation resorts.

HFT 4277 UCF-HOSP 3(3,0)
Yacht, Country \& City Club Manage-ment: PR: HFT 4250C. A study of the history, development, operation and management of Yacht, Country and City Clubs. Emphasis will be placed on operational aspects.

## HFT 4294 UCF-HOSP 3(3,0)

Hospitality Enterprises Management II: PR: C.I. Planning and implementing strategies for managing the human resource in the hospitality/tourism industry.

## HFT 4295 UCF-HOSP 3(3,0)

Strategic Management in Hospitality Industry: PR: Completion of Hospitality Management Core program. Principles of strategic decision making in various hospitality and tourism organizations; lectures, class discussions, and group case analysis presentations.

HFT 4298 UCF-HOSP 3(3,0)
Hospitality Business Consulting: PR: Senior standing or HFT 4752, HFT 4714, HFT 4240C, and HFT 3223, or C.I. A systematic approach to Hospitality Management. Students apply their cumulative
knowledge in an active learning environment in a small hospitality operation.
HFT 4343 UCF-HOSP 3(3,0)
Hospitality Facilities Planning and Design: PR: HFT 1000 and HFT 2254. Principles of facility planning, layout and design for dining, kitchen, guest room, lobby, and service areas.

HFT 4442 UCF-HOSP 3(3,0)
Vacation Ownership Reservations and Database Systems: PR: HFT 3274 and HFT 444. Tactics and strategies necessary for owner exchange, information transmittal, and financial reporting.

## HFT 4462 UCF-HOSP 3(3,0)

Hospitality Industry Finance: PR: HFT 2403 and HFT 3431. Working knowledge of finance concepts and theories applicable to the Hospitality Industry including evaluating management contracts, franchising, and leasing.

## HFT 4473 UCF-HOSP 3(3,0)

Hotel Development Analysis: PR: Junior standing, HFT 3223 and C.I. Review of methodological operation, financial, and marketing aspects of analyses for hotel development projects.

HFT 4522 UCF-HOSP 3(3,0)
Vacation Ownership Resort Sales Tactics and Strategies: PR: HFT 3274. Sales tactics and corporate strategies employed in the sales and marketing of vacation ownership properties.

## HFT 4532 UCF-HOSP 3(3,0)

Merchandise Management in Theme Parks and Attractions: PR: HFT 4755. The retail, merchandising, and purchasing processes in the theme parks and attraction industry.

## HFT 4717 UCF-HOSP 3(3,0)

Hospitality Operations II: PR: Junior Standing. A survey of tourism, travel agency, airline, convention and trade show operations from both the U.S. and international perspective.

## HFT 4722 UCF-HOSP 3(3,0)

Travel Agency Management: PR: Junior Standing. The trends operation management procedures and practices of travel agents. Emphasis on tools utilized in agency operations.

## HFT 4735 UCF-HOSP 3(3,0)

Tourism Geography: PR: HFT 4717. A seminar discussing the main geographical tourism destinations in U.S. and the World.

## HFT 4752 UCF-HOSP 3(3,0)

Guest Services Management II: PR: HFT 3540 or C.I. Using decision theory and analytical techniques to create and maintain quality guest services. The emphasis is on strategic implications of quality service management.

## HFT 4753 <br> UCF-HOSP <br> 3(3,0)

Convention and Conference Services: PR: HFT 3511. Provides an in-depth understanding of the acquisition and management of services (food and beverage, audio visual, transportation, etc.) integral to effective convention and conference operations.

HFT 4754 UCF-HOSP 3(3,0)
Exhibit and Trade Show Operations: PR: HFT 4717 or C.I. Provides an in-depth study of exhibit and trade show operations. Focuses on both supply and demand pertaining to exhibits and trade shows.

## HFT 4755 UCF-HOSP 3(3,0)

Theme Park and Attraction Manage-ment: PR: HFT 4714. An in-depth study of the theme park and attraction industry, focusing on resources, ride operations, merchandising, food services, and architectural design

## HFT 4758 UCF-HOSP 3(3,0)

Contemporary Issues in the Theme Park and Attraction Industry: PR: HFT 4755. Examination of current issues in the theme park and attractions industry, including hands-on situation analysis.

## HFT 4759 UCF-HOSP 3(3,0)

Product Development in Theme Parks and Attractions: PR: HFT 4755. The strategic management process associated with product development in the theme parks and attraction industry.

## HFT 4762 UCF-HOSP 3(3,0)

Current Practices in the Airline Industry: PR: Junior standing. A survey of the U.S. and International airline industry. Emphasis on the organization and management functions of the airlines.

## HFT 4844 UCF-HOSP 3(3,0)

Sanitation in The Food Service Indus-try: PR: HFT 1000, Junior standing. Causes and prevention of food spoilage and food borne illnesses. Includes National Restaurant Association (NRA) certification.

## HFT 4861 UCF-HOSP 3(3,0)

Beverage Management: PR: Junior standing. The origin production, storing, marketing, and control of beverages in the hospitality industry.

HFT 4949 UCF-HOSP 1-5(0,1-5)
Cooperative Education: Provides paid, pre-professional work experience related to the students' major while they continue to attend school. Requires achievement of major-related learning objectives.

Foundations of Health Information Management (HIM): PR: Acceptance into upper-division limited access HIM program or C.I. Foundation of profession; release of information; record analysis; numbering and filing systems; standards for long-term care; ambulatory care; and mental health records.

## HIM 3116C HPA-HIM 4(3,2)

Health Record Organization and Management: PR: HIM 3006C. Nomenclatures/classification systems; health and vital statistics; data analysis and presentation; indexing; computer abstracting; accrediting and approving agencies; medical staff organization

HIM 3806L HPA-HIM 2(0,4)
Professional Practice Experience I: PR: Admission to the professional phase of the Health Information Management Program. Interdepartmental experience; master patient index; introduction to health information management departments in selected health care facilities.

## HIM 3816L HPA-HIM 2(0,4)

Professional Practice Experience II: PR: HIM 3806L, HSC 3531. CR: HIM 3116C. Health record assembly and analysis; release of medical information; numbering and filing systems; incomplete record control; retention and retrieval.

## HIM 4226C HPA-HIM 4(3,2)

Coding Procedures I: PR: HSC 4550, HSC 3531, or C.I. Principles and mechanics of coding systems for inpatient health information retrieval; ICD-9-CM; DRGs; encoders.

## HIM 4256C HPA-HIM 3(2,2)

Coding Procedures II: PR: HIM 4226C or C.I. Principles and mechanics of coding systems for outpatient health information retrieval; ICD-9-CM; HCPCS; APGs; encoders.

## HIM 4344C HPA-HIM 4(3,2)

Health Information Department Management: PR: HIM 3116C; MAN 3025. Personnel administration; budgeting; forms analysis; work distribution and simplification; equipment selection; ergonomics and space planning.

## HIM 4506 HPA-HIM 3(2,2)

Quality Management: PR: HIM 3116C, HIM 4226C. CR:HIM 4256C. Principles and mechanics of quality improvement; utilization review; case management and risk management.

HIM 4656C HPA-HIM 3(2,2)
Health Information Management Systems: PR: HSA 4193, HIM 4226C. Vitalization of information systems, management and patient care in the health care industry, systems analysis, system design and project management concepts.

Professional Development and Issues in Health Information Management: PR: HIM 4344C, HIM 4506. Analysis of management functions in health care setting; the HIM professional as an educator; problem-solving techniques; professional ethics; alternative careers.

## HIM 4836L HPA-HIM 2(0,4)

Professional Practice Experience III: PR: HIM 3006C, HIM 3116C, HIM 3806L, HIM 4226C. Inpatient coding; health and vital statistics; JCAHO accreditation; indexing; abstracting; medical staff organization and credentialing.

## HIM 4837L HPA-HIM 2(0,4)

Professional Practice Experience IV: PR: HIM 4256C; HIM 4344C; HIM 4506; HIM 4836L. Outpatient coding, quality management, utilization review, risk management, transcription, assignment to hospitals and other health care facilities/organizations.

## HIM 4838 HPA-HIM $\mathbf{5 ( 0 , 1 5 )}$

Management Affiliation: PR: All other required courses. Assignment to a selected health care facility serving in an administrative capacity under the direction of a Registered Record Administrator; lab exercises; comprehensive exam.

## HIS 3462 AS-HIST 3(3,0)

History of Science: PR: EUH 2000 and EUH 2001 or C.I. Examines past and present science, scientific thought, and the relationship between science and society.

HIS $3949 \quad$ AS-HIST $\mathbf{0}(0,8)$
Cooperative Education in History: PR: Departmental permission required before registering. Cooperative education experience in history. May be repeated. Graded S/U.

HIS 4150 AS-HIST 3(3,0)
History and Historians: PR: C.I. A study of European and/or American historiography. May be repeated once for credit.

HIS 4944 AS-HIST 3(3,0)
Internship in Public History: PR: C.I. The Public History Internship is a one-semester course in which undergraduate history majors explore and gain experience in public history professions.

HIS 4970 AS-HIST 3(3,0)
Senior Thesis: Original research paper available to advanced history majors, topics to be selected in consultation with a directing professor.

HIS 5067 AS-HIST 3(3,0)
Introduction to Public History: PR: Graduate standing. Examine and discuss the practice of history in museums, archives, documentary editing, historical publication, media, historical societies, and government agencies.

Classic and Contemporary Historical Thought: PR: Graduate Standing. Course will explore work of important historians influenced by social theory to gain an understanding of their main concepts.
HLP 2701 ED-IP 3(3,0)

Peer Education Training: PR: Sophomore standing and C.I. Strategies for teaching life skills and health education information for secondary students and college age peers
HLP 4722 ED-IP 3(2,1)

Teaching Elementary School Health and Physical Education: PR: Admission to Phase II or C.I. Organization, practice, and conduct of health (including drug abuse) and physical education programs in the elementary school. Includes field experience.

HSA 3122 HPA-HP 3(3,0)
U.S. Health Care Systems: PR: Major or minor in College of Health or C.I. A survey of the economics, social, and political aspects of the health care system in the United States.

HSA $3170 \quad$ HPA-HP $\mathbf{3}(\mathbf{3}, \mathbf{0})$
Health Care Finance: PR: HSC 3122, ACG 2021 and ACG 2071. Budgeting and resource allocation related to health care agencies.

HSA 3210 HPA-HP 3(3,0)
Long Term Care Administration: PR: HSA 3122. Current financing mechanisms and proposed solution, and the impact of government regulation or the operation of long-term care facilities.

HSA 3430 HPA-HP 3(3,0)
Health Care Economics: PR: HSA 3122. To provide an application of economic principles to analyze how different economic incentives affect patients, providers, and policy makers behaviors in the delivery of health services.

HSA 4109 HPA-HP 3(3,0)
Principles of Managed Care: PR: HSA 3122, HSA 3170, HSA 4120, HSA 4180, HSA 4193, HSC 4500. Course will introduce the contractual, financial, and practice pattern components of managed care.

## HSA $4120 \quad$ HPA-HP $\mathbf{3}(3,0)$

Community Health: PR: HSA 3122. Historical, sociocultural and economic factors in community health; current community health problems; interphase of governmental, voluntary and private agencies.

HSA $4180 \quad$ HPA-HP 3(3,0)
Organization and Management for Health Agencies: PR: MAN 3025, HSA 3122. Organization and management of Health Care Agencies, including procedural applications.

Health Care Automation: PR: HSA 3122, CGS 2100. Analysis and design of computerized systems for health data and health administration.

HSA $4220 \quad$ HPA-HP $\mathbf{3}(\mathbf{3 , 0})$
Long Term Patient Management: PR: HSA 3122. Concepts and process of patient care planning and management in a long term care facility.

## HSA 4502 HPA-HP 3(3,0)

Risk Management Systems: PR: HSA 3122; HSA 3170, HSA 4120, HSA 4180, HSA 4193, and HSC 4500. Safety, liability and loss control issues with emphasis on risk retention, risk reduction and risk transfer in health care.

## HSA 4700 HPA-HP 3(3,0)

Health Sciences Research Methods: PR: HSA 3122, HSA 3170, HSA 4120, HSA 4180, HSA 4193, and HSC 4500. Intro-duction to research design in the Health Sciences, including design, literature review, testing, analysis, and conclusions.

## HSA 4701 HPA-HP $\mathbf{6 ( 6 , 0 )}$

Introduction to Research in the Health Professions: PR: Senior or post-bac standing. The logic of research and the architecture of basic and applied investigations that are internally and externally reliable and valuable will be stressed.

HSA 5197 HPA-HP 3(3,0)
ICD9 Coding for Health Services Administrators: PR: HSC 6636, B.S. in Health related field, or C.I. Emphasis on developing basic skills to facilitate an understanding of the coding process and the compliance issues relevant to the process. May be repeated for credit.

## HSA 5198 HPA-HP 3(3,0)

Information Systems and Computer Applications in Medicine: PR: CGS 2100 or equivalent. Overview of health information systems, with an emphasis on computer applications. Discussion of software and hardware requirements.

HSC 1931C HPA-HP 2(1,1)
Foundations of Leadership: PR: LEAD Scholars Program. Seminar for LEAD Scholars in the College of Health \& Public Affairs providing a foundation of leadership, scholarship, and service regarding disciplines in the college.

HSC 2000 HPA-HP 2(2,0)
Introduction to the Allied Health Professions: A survey of allied health professions with regard to duties, respons-ibilities, education and training, ethics, and relationships with other health profes-sionals. Satisfactory/Unsatisfactory grade.

Medical Self Assessment: Development of clinical skills and understanding of one's health to encourage active participation of individuals in their own health care.

HSC 3149 HPA-HP 3(3,0)
Introduction to Pharmacology: Review of terminology and regulations. Study of drug types and usage.

HSC 3402C HPA-HP 3(2,3)
CPR\& First Aid: To train individuals to accepted and recognized medical standards in emergency first aid and CPR to include medical, environmental and trauma related emergencies.

## HSC 3531 HPA-HP 3(3,0)

Medical Terminology: A study of the language of medicine and allied health specialties, including work construction, definitions, and application of terms.

HSC 3593C HPA-HP 3(2,2)
HIV Disease: A Human Concern: Analysis of the spectrum of HIV disease. Topics include: epidemiology \& immunology; basic facts, prevention; legal, economic, and ethical issues; psychosocial aspects; substance abuse; sexuality and decision-making.

HSC $3640 \quad$ HPA-HP 3(3,0)
Health Law: PR: HSA 3122, HSA 3170, HSA 4120, HSA 4180. Principles of law as applied to the health field, with special reference to health practices.

HSC 4008 HPA-HP 3(3,0)
Professional Development in Health Professions: PR: RET 3026 or C.I. Career development planning, profession-al leadership approaches to problem solv-ing, regulatory and professional require-ments, and the impact of disease and technology on the health care industry.

HSC 4243 HPA-HP 3(3,0)
Analysis of Instruction in Health Professions: Development of teaching aids, audiovisuals, learning packets. Course development, questioning strategies, evaluation of didactic and clinical performance.

HSC 4500 HPA-HP 3(3,0)
Epidemiology: PR: HSA 3122, STA 2014C or STA 2023. A study of the distribution and determination of diseases and injuries in human population.

HSC 4550 HPA-HP 3(3,0)
Pathophysiologic Mechanisms: PR: ZOO 3733C and PCB 3703C, or C.I. A study of pathologic lesions and pathophy-siologic mechanisms in causation and evolution of the various disease state.

Health Care Needs of the Elderly: PR: HSA 3122, HSA 3170, HSA 4120, HSA 4180, HSA 4193, HSC 4500. Overview of the physical and emotional needs of the elderly, including the institutional health care available.

HSC 4653 HPA-HP 3(3,0)
Health Care Ethics: PR: HSA 3122, HSA 3170, HSA 4120, HSA 4188, HSA 4193, HSC 4500. A study of ethical issues in health care, including life-saving measures, rights to die, transplants, surrogate parenthood, privacy and confidentiality, and decision-making.

HSC 5595 HPA-HP 3(3,0)
AIDS: A Human Concern: Focus on epidemiology, transmission, prevention, legal and health care issues, economic impact, psychosocial aspects, sexuality, substance abuse, ethics, hotlines, referral services and the decision making process.

## HUM 2211 AS-PHIL 3(3,0)

Humanistic Tradition I: An interdisci-plinary, multicultural study of the arts and sciences contributed by diverse human traditions to world civilization. Focus is on ancient civilizations and the cultural heritage stemming from them. Primary sources (in translation) are emphasized.

HUM 2211H AS-PHIL 3(3,0)
Honors Humanistic Tradition I: This course shares the interdisciplinary, multi-cultural focus on ancient civilizations and their cultural heritages of HUM 2211; it differs principally in the depth and breadth of study.

## HUM 2230 AS-PHIL 3(3,0)

Humanistic Tradition II: An interdisci-plinary, multicultural study of the arts and sciences contributed by diverse human traditions to world civilization. Focus is on modern civilizations and their contri-butions to the Global Village. Primary sources (in translation) are emphasized.

## HUM 2230H AS-PHIL 3(3,0)

Honors Humanistic Tradition II: This course shares the interdisciplinary, multi-cultural focus on modern civilizations and their cultural contributions to the Global Village of HUM 2230; it differs princi-pally in the depth and breadth of study.

## HUM 3251 AS-PHIL 3(3,0)

Contemporary Humanities: PR: ENC 1102 or C.I. Multicultural study of Philo-sophy and the arts of the 20th century.

## HUM 3255 AS-PHIL 3(3,0)

Modern Humanities: PR: ENC 1102 or C.I. Multicultural study of Philosophy and the arts of the modern period.

Contemporary Multicultural Studies: PR: HUM 2230, Junior standing, or C.I. Studies the confluence of diverse cultures making up North America in the Information Age, focusing on complete primary sources in philosophy, literature, visual arts and music.

## HUM 3401 AS-PHIL 3(3,0)

Asian Humanities: An interdisciplinary survey of the cultures of India, China, and Japan, concentrating on their traditional art, literature, religion, philosophy, and music.

HUM 3417 AS-PHIL 3(3,0)
Hindu Thought and Culture: A survey of the development of Hindu thought and culture from vedic times to the modern age, with emphasis on religion, literature, philosophy, art and music.

HUM 3419 AS-PHIL 3(3,0)
Islamic Thought and Culture: A survey of the development of Islamic thought and culture, concentrating on religion, jurisprudence, philosophy, science and art.

HUM 3431 AS-PHIL 3(3,0)
Ancient Humanities: Development of Ancient Greek thought and culture with emphasis on philosophy, religion, literature and art.

## HUM 3435 AS-PHIL 3(3,0)

Medieval Humanities: PR: ENC 1102 or C.I. Development of Medieval thought and culture with emphasis on Philosophy, Religion, Literature and Art.

## HUM 3552 AS-PHIL 3(3,0)

Christian Thought: PR: ENC 1102. Christian thought from 4th century to present, concentrating on human nature, social justice, the state, war, and attitudes toward women.

## HUM 3553 AS-PHIL 3(3,0)

Moses, Jesus and Muhammad: Deals with the main themes of Judaism, Christianity, and Islam as found in the teachings of Moses, Jesus, and Muhammad.

HUM 4301 AS-PHIL 3(3,0)
The Classical Ideal: PR: HUM 2211 and HUM 2230 or C.I. The search for order and form in the arts of various times and cultures. Concerns reason, structure, objectivity, harmony. Open to all Juniors and Seniors.

HUM 4303 AS-PHIL 3(3,0)
The Spiritual Ideal: PR: HUM 2211 and HUM 2230 or C.I. Concerns works of art reflecting spiritual insight or the spiritual quest; mystical impulses contrasted to ethos and pathos.

HUM 4330 AS-PHIL 3(3,0)
Performance Theory: PR: HUM 2230 or C.I. Traditional and contemporary theories of performance
with a focus on linguistic performatives, bodily and virtual performances, self-identity, and the politics of performance.

## HUM 4393 AS-PHIL 1(1,0)

Portfolio: PR: Last semester as Humanities major. Presentation of a representative sampling of student's best undergraduate work, with appropriate revisions, including a cover narrative indicating development of humanistic knowledge and skills. Graded S/U.

HUM 4554 AS-PHIL 3(3,0)
Religious Quest and Human Dilemma: PR: ENC 1102 or C.I. Nature of the sacred, death, and future life and how they relate to human existence.

## HUN 2002 HPA-HP 3(3,0)

Modern Concepts in Nutrition: An examination of the eating patterns of today's American people. Topics include: nutrients in our diets, consumer demand in the food industry; fast food outlets, food trends and hunger.

## HUN 3011 HPA-NURS 3(3,0)

Human Nutrition: Essentials of nutrition related to the life cycle, including the physiological, psychosocial, and cultural aspects of nutrition and the inter-relationship with disease are emphasized.

## HUN 3013 UCF-HOSP 3(3,0)

Nutrition Concepts and Issues in the Food Service Industry: PR: HFT 4250C or C.I. Introduces basic nutrition concepts. Discusses nutrition concepts and concerns in relation to food preparation and service in the hospitality industry.

## HUN 5937 HPA-HP 3(3,0)

Nutrition and Exercise Physiology: This course correlates human nutrition with exercise physiology. Nutritional concepts are related to human performance and fitness
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## IDH 1040H UCF-HON 2(2,1)

Honors Foundation of Leadership: An honors symposium that presents academic leaders and their research or artistic achievements. Students are organized in groups to discuss leadership principles and applications.

## IDH 1921 UCF-HON 1(2,0)

Honors Symposium: Readings, lectures and discussions covering aspects of scholarship, artistic, and other creative efforts.
IDS 1040C AS-LS 2(1,1)

Foundations of Leadership: PR: LEAD Scholars Program. Seminar for LEAD Scholars in the College of Arts \& Sciences providing a foundation of leadership, scholarship, and service regarding disciplines in the college.

## IDS 2041C AS-CAS 2(1,1)

LEAD Colloquim: PR: Must have completed 2 of the following with a grade of B or better: IDS 1040C, GEB 1091C, HSC 1931C, EGN 1036C, EDG 1005, or EDF 1930C. Experiential leadership in an appropriate setting with the LEAD Scholars Program.

IDS 2680 AS-DIG 3(3,0)
Introduction to Digital Media: CR: ENC 1101. The principles, development and prospects for

Digital Media, with a focus on the Internet. Students learn to build Web pages as their principal expressive medium in the course. Exten-sive reading, Internet and library research, several short papers and a team project are required. This course serves as the gateway for the Digital Media program.

IDS 3150 AS-PHIL 3(3,0)
Interdisciplinary Environmental Studies: PR: Junior standing, complete equivalent of UCF Science and Math GEP. An overview of the approaches taken by different disciplines to address regional, national, and global environmental issues.

## IDS 3647C AS-DIG 3(2,1)

Digital Imagery: PR: IDS 2680 or C.I. Technical principles of digital photography and scanned image capture for use in video games, internet and interactive software. Project oriented.

IDS 3683 AS-DIG 3(3,0)
Seminar in Digital Arts: PR: IDS 2680 and C.I. Study of digital media technolo-gies, design strategies, group dynamics and project organization. Several media projects are produced. This course teaches skills required in the Digital Media Project; May be repeated for credit.

## IDS 3684L AS-DIG 1(0,3)

Digital Media Service I: PR: C.I. CR: IDS 3683. Participation in a consulting service for selected clients both within and external to the university, where students design Web pages, and provide tutorial, installation and maintenance assistance with software tools.

## IDS 4681 AS-DIG 3(3,0)

Modeling for Realtime Graphics: PR: CAP 4021, ART 2600C or other computer graphics experience and C.I. Principles of construction of 3D models for realtime applications; use of high performance CAD systems; level of detail management, efficiency vs. visual quality for video games and realtime simulation.

## IDS 4682 AS-DIG 3(3,0)

Digital Media Project: PR: IDS 3683 or C.I. A practicum allowing multidiscip-linary students to work with a team of faculty and industry mentors to design and implement a project using state-of-the-art tools. Projects may involve virtual reality, video game production, computer animation, and interaction with the theme park industry. May be repeated for credit.

## IDS 4685L AS-DIG $\quad \mathbf{1}(0,3)$

Digital Media Service II: PR: IDS 3684L. Continued participation in a consulting service for selected clients both within and external to the university, where students design Web pages, and provide tutorial, installation and main-tenance assistance with software tools.

## IDS 4686L AS-DIG $\mathbf{1}(0,3)$

Digital Media Service III: PR: IDS 4685L. Participation as a leader in a consulting service for selected clients both within and external to the university, where students design Web pages, and
provide tutorial, installation and main-tenance assistance with software tools.
IDS 4688L AS-DIG 3(0,3)
Internet Interaction: PR: IDS 2680 or CGS 3175 or C.I. Interdisciplinary approach to design and construction of advanced interactive web sites, applying esthetic and scientific principles of user interface design. Project oriented.

## IDS 5145 ECS-ECS 3(3,2)

Interdisciplinary course in simulation: PR: Calculus, matrix algebra, probability \& statistics, high level programming language. An interdisciplinary course on simulation with hands-on experience in discrete event modeling, continuous modeling \& shared virtual world. May be repeated for credit.

INP 3004 AS-PSYCH 3(3,0)
Industrial/Organizational Psychology: PR: PSY 2013 or C.I. Psychological theories and principles applicable to problems in industrial organizations.

## INP 3141C AS-PSYCH 1-3(0,3-9)

Advanced Applied Psychology: PR: PSY 2013 and CI. Course will explore application of psychological knowledge to clinical, experimental, industrial, or educational settings. Supervised laboratory experience is required. May be repeated for credit. Graded "S"/"U".

INP 3803 AS-PSYCH 3(3,0)
Principles of Human Factors Psychology: PR: PSY 2013. The study of human performance in human-machine-environment systems. Topics will include human factors psychology in the design of displays and controls, human information processing, and the effects of some environmental variables on human performance.

INP 3951 AS-PSYCH $\mathbf{3 ( 0 , 1 0 )}$
Industrial/Organizational Field Work: PR: C.I. An opportunity for advanced undergraduate psychology majors to become involved in the application of I/O psychology to local organizations.

INP 4056 AS-PSYCH 3(3,0)
Advanced Industrial Psychology: PR: INP 3004 and PSY 3214C. Application of psychological principles to industrial problems. Topics include selection, training, performance appraisal, job design, and work environment.

## INP 4313 AS-PSYCH 3(3,0)

Organizational Psychology: PR: INP 3004. Analysis of the psychological principles underlying individual and group behavior in an organizational setting. Topics include group dynamics, leadership and participation, intergroup behavior, and organization development.

INP 5825 AS-PSYCH 3(3,0)
Human-computer Interface (HCI) design: A team approach: PR: Graduate standing or C.I.

Interdisciplinary approach to human-computer interface design, including behavior, engineering, computer science, and instructional aspects. Tools and techniques for team development and the evaluation of software for usability

INR 2002 AS-POLS 3(3,0)
International Relations-Theory and Practice: Analysis of the fundamental principles and factors affecting interstate relations and their application to contemporary global developments.

INR 3253 AS-POLS 3(3,0)
International Politics of Africa: PR: Junior standing or C.I. The broad structures and processes of international politics and foreign policy in Africa, with particular attention on U.S.- African relations.

INR 4035 AS-POLS 3(3,0)
International Political Economy: The international politics of regional and global economic interdependence, with emphasis upon North-South relations, the New International Economic Order, OPEC, and multinational corporations.

## INR 4085 AS-POLS 3(3,0)

Women, Gender, and Globalization: PR: Junior standing. Feminist and gender perspectives in International Relations, Globalization, and International Political Economy.

INR 4102 AS-POLS 3(3,0)
American Foreign Policy: Development of American foreign policy, with emphasis on the role and policies of the United States in the contemporary world.

INR 4114 AS-POLS 3(3,0)
American Security Policy: PR: POS 2041, Junior standing, or C.I. Study of the evolution of American security policy since World War II, including consideration of the social and political costs involved and means of control.

INR 4115 AS-POLS 3(3,0)
Strategic Weapons and Arms Control: Control of strategic weapons and their impact.
Technological and policy aspects, including nuclear proliferation.
INR 4224 AS-POLS 3(3,0)
Contemporary International Politics of Asia: Examinations of foreign policies of major and secondary powers in Asia, with particular attention to China and Japan.

INR 4225 AS-POLS 3(3,0)
The Vietnam War: Background of events leading to America's involvement in Indochina, the course of the Vietnam War, and the lessons which that war imparts.

INR 4243 AS-POLS 3(3,0)

International Politics of Latin America: Study of contemporary U.S.-Latin American relations, inter-American politics and organization, and the role of Latin America in the world.

INR 4335 AS-POLS 3(3,0)
Coercion in International Politics: Examination of the role of coercive techniques among states in a nuclear age, ranging from nuclear strategy and deterrence to wars of national liberation and coups.

INR 4351 AS-POLS 3(3,0)
International Environmental Law: PR: Junior standing or C.I. Examination of global efforts to establish a treaty regime for environmental protection of earth's biosphere when challenged by national sovereignty and economic and cultural diversity.

INR 4401 AS-POLS 3(3,0)
International Law I: PR: Junior standing or C.I. The nature, evolution, and sources of international law and such subareas as recognition of states and governments, expropriation, nationality, and aliens.

INR 4402 AS-POLS 3(3,0)
International Law II: PR: INR 4401 or C.I. Examination of various sub-areas of international law, including maritime law, laws of the sea and seabed, air law, outer space, neutrality, and laws of war.

INR 4404 AS-POLS 3(3,0)
Space Law: Examination of the legal regime of outer space from both international and national perspectives, and the legal problems arising from human activity in space.

INR 4502 AS-POLS 3(3,0)
International Organizations: The study of the structure and workings of interna-tional organizations of cooperation, including the UN, its affiliates, and various regional organizations.

ISM 3005 BA-MIS 3(3,0)
MIS Techniques: Introduction to com-puter use required of users and developers of management information systems.

## ISM 3011 BA-MIS 3(3,0)

Management Information Systems: PR: CGS 2100. An introduction to the management and use of information technology in organizations.

ISM 3530 BA-MAN 3(3,0)
Quality \& Productivity Management: PR: GEB 3031 and MAN 3025. An examination of the principles and theories of quality and operations management in manufacturing and service organizations.

ISM 4090 BA-MIS 3(3,0)
Seminar in Management Information Systems: PR: ISM 3011. New developments in management
information systems in a business environment.
ISM 4113 BA-MIS 3(3,0)
Information Systems Analysis and Design: PR: ISM 4212, ISM 3005. Structured approaches to the development of computer-based information systems in business.

ISM 4114 BA-MAN 3(3,0)
Advanced Business Application Development: PR: ISM 3005, ISM 4212, CR: ISM 4220, ISM 4113. Theory and practice in developing client server applications for business and use of modern development tools. Includes principles of multiuser, multitier application design and implementation.

ISM 4130 BA-MIS 3(3,0)
Information Systems Implementation: PR: ISM 4113. Management of informa-tion systems development in business.

ISM 4133 BA-MIS 6(6,0)
Information Systems Analysis, Design, and Implementation: PR: ISM 3005, ISM 4212. Same as ISM 4113 and ISM 4130. Comprehensive coverage of analysis, design, and Implementation of information systems

ISM 4212 BA-MIS 3(3,0)
Database Management: PR: ISM 3005. Design and implementation of relational database in organizations.

ISM 4220 BA-MIS 3(3,0)
Distributed Information Systems: PR: ISM 3005. Computer networking and communications. Managerial and techni-cal dimensions of client/server and other modes of distributed and decentralized computing in business. Distributed database design and implementation.

ISM 4228 BA-MAN 3(3,0)
Advanced Distributed Information Systems: PR: ISM 4220. Provides students with in-depth, hands-on experience with networking hardware and software. Teamwork emphasized in acquiring a master of networking concepts

ISM 4238 BA-MAN 3(3,0)
Business Programming/OOP: PR: ISM 3005, ISM 4212, or C.I. This course will provide an introduction to object-oriented programming (OOP) and object-oriented design (OOD).

ISM 4300 BA-MIS 3(3,0)
Technology Management: PR: ISM 4113, MAN 3025, Junior Standing. The strategy and theory of the design, development, adoption, and management of new information technologies.

ISM 4400 BA-MIS 3(3,0)

Decision Support: PR: ISM 3011. Computer-based quantitative models and decision support systems in organizations.

## ISM 4480 BA-MIS 3(3,0)

Electronic Commerce Systems: PR: ISM 3005, ISM 4212, MAR 3023. Theory and practice in developing electronic commerce systems. Emphasizes economic issues and modern e-commerce development tools. Significant laboratory work required.

## ISM 4941 BA-MIS 3(0,3)

Internship in MIS: PR: ISM 3005, ISM 4212, \& ISM 3011. Application required. Provides student with supervised, management information system-related work experience in a sponsoring organ-ization. See department for information.

ISM 5020 BA-MIS 1.5(1.5,0)
MIS Foundations: PR: Acceptance to Graduate Study. Information systems are an integral part of modern organizations. This course provides an introduction to information systems from an organiza-tional and managerial perspective.

## ISM 5021 BA-MIS 3(3,0)

Introduction to Management Information Systems: PR: Acceptance into the graduate program. Designed to provide the student with the fundamentals of business data processing and management information systems used by organizations in a modern society.

## ISS 4155 AS-COMM 3(3,0)

Science Fiction and the Social Sciences: A multimedia examination of note-worthy science fiction from the Social Science perspective.

ITA 1005 AS-LANG 1(1,0)
Italian Diction: This course is especially designed for music and voice students, with an emphasis on musical terms, Italian songs, and opera libretti.

ITA 1120 AS-LANG 4(4,1)
Elementary Italian Language and Civilization I: Introduces the student to Italian culture through the major language skills: listening, speaking, reading and writing. Open only to students with no experience in this language.

ITA 1121 AS-LANG 4(4,1)
Elementary Italian Language and Civilization II: PR: ITA 1120 or equivalent. Continuation of ITA 1120.

ITA 2200 AS-LANG 3(3,0)
Intermediate Italian Language and Civilization I: PR: ITA 1121 or equiva-lent. Designed to continue development of language skills at intermediate level, plus a review of grammar, study of
syn-tax, idiomatic expression, extensive read-ings, and further study of Italian culture.
ITA 2201 AS-LANG 3(3,0)
Intermediate Italian Language and Civilization II: PR: ITA 2200 or equivalent. Designed to continue development of language skills at intermediate level, plus a review of grammar and study of syntax, with emphasis on Italian civilization.

ITA 2210 AS-LANG 3(3,0)
Intensive Italian Conversation: PR: One year of Italian or equivalent. Practical use of the language leading toward fluency and correctness in speaking.

ITA 2240 AS-LANG 3(3,0)
Italian Conversation: PR: ITA 2201 or equivalent. Development of skills in conversation and comprehension with an introduction to Italian culture.

ITA 3420 AS-LANG 3(3,0)
Italian Composition: PR: ITA 2201 or equivalent. Development of skills in composition, with an introduction to Italian culture.

ITA 3472 AS-LANG 3(3,0)
Renaissance Art Abroad: PR: Junior standing. A study of Renaissance art from Giotto to Michelangelo.

ITA 3760 AS-LANG 3(3,0)
Advanced Italian Oral Communication: PR: ITA 2201 or equivalent. Vocabulary building with systematic training in diction and locution. Speeches and oral presentations as well as production and delivery of real-life dialogues.

ITA 4500 AS-LANG $\mathbf{3}(\mathbf{3}, 0)$
Italian Civilization: PR: ITA 2201. A historical approach to Italian civilization, with particular emphasis on art history.

ITA 4820 AS-LANG 3(3,0)
Italian Syntax Abroad: PR: ITA 3420. A study of Italian Syntax for advanced students of Italian.
ITW 3100 AS-LANG 3(3,0)
Survey of Italian Literature I: PR: ITA 2201. Main currents and writers in Italian literature from the 12th through the 15th centuries.

ITW 3101 AS-LANG 3(3,0)
Survey of Italian Literature II: PR: ITA 2201. Main currents and writers in Italian literature from the 15th century to the present.

Dante's Inferno: PR: ITA 1120 or junior standing. An in-depth study of Dante's Inferno. In English.

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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

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## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

## JOU 2100 AS-COMM $\mathbf{3}(\mathbf{3}, \mathbf{1})$

News Reporting: PR: Majors only, Grammar Proficiency Examination and department keyboard exam. Development of skills in newsgathering and writing for the mass media. Students must have minimum ability to type and pass the department language proficiency exam.

JOU 3004 AS-COMM 3(3,0)
History of American Journalism: Development of mass media, leading innovators, and the medias role in the nation's history.

JOU 3101 AS-COMM 3(3,0)
Advanced Reporting: PR: Majors only, Grammar Proficiency Examination and departmental keyboard examination and JOU 2100. Advanced information-gathering and development of news writing skills.

## JOU 3200 AS-COMM 3(3,0)

Editing I: PR: Grammar Proficiency Examination and JOU 2100. Editing copy, writing headlines, managing newsroom operations.

JOU 3202 AS-COMM 3(3,0)
Editing II: PR: JOU 3200. Practical aspects of editing. Principles of design. Practice in editing and layout.

Magazine Publishing: PR: Junior Standing or C.I. The magazine industry, emphasizing business operations and current topics.

## JOU 4181 AS-COMM 3(3,0)

Public Affairs Reporting: PR: Majors only, Minimum grade of "C" in JOU 2100. Reporting on city, county and state government.

## JOU 4224 AS-COMM 3(3,0)

Magazine Editing and Production: PR: Junior standing or C.I. The magazine industry, including writing and editing skills, and editorial, business, and production requirements.

## JOU 4300 AS-COMM 3(3,0)

Feature Writing: PR: A minimum grade of "C" in JOU 2100 or PUR 3100. Writing feature articles for newspapers and magazines.

## JOU 4306C AS-COMM 3(1,2)

Critical Writing: PR: C.I. Writing reviews of movies, plays, television programs, concerts, books, and other cultural works.

JOU 4308 AS-COMM 3(3,0)
Freelance Writing: PR: C.I. A study of the techniques and procedures of freelance writing, including the preparation of several manuscripts.

JOU 4340C AS-COMM 3(1,3)
On-line Journalism I: PR: JOU 2100, PUR 3100 or RTV 3304. The development, impact and problems of using the Internet as a journalistic tool. Students will write and design news for the Web.

JOU 4341C AS-COMM $\mathbf{3}(1,3)$
On-line Journalism II: PR: JOU 4340C. Study, design, and development of on-line journalism materials.

JPN 1120 AS-LANG 4(4,1)
Elementary Japanese Language and Civilization I: Introduces the student to Japanese culture through the major lan-guage skills: listening, speaking, reading and writing. Open only to students with no experience in the language.

JPN 1121 AS-LANG 4(4,1)
Elementary Japanese Language and Civilization II: PR: JPN 1120 or equivalent. Continuation of JPN 1120.

Intermediate Japanese Language and Civilization I: PR: JPN 1121 or equiva-lent. This course aims to aid in acquiring and refining the acquisition of the four skills in modern Japanese: speaking, listening, reading, and writing. The emphasis is on accurate communication in Japanese. The culture of Japan will also be studied.

JPN 2201 AS-LANG 3(3,1)
Intermediate Japanese Language and Civilization II: PR: JPN 2200 or equivalent. Continuation of JPN 2200 with emphasis on Japanese civilization.

JST $3100 \quad$ AS-JUD 3(3,0)
The Hebrew Creative Mind: Survey of Hebrew Literature in Translation. A survey of the creative expressions of Hebrew civilization as found in the Hebrew Bible, Apocrypha and Pseude-pigrapha, the Mishnah, and the Talmud, Medieval Hebrew Poetry and Prose.

JST 3144 AS-JUD 3(3,0)
Dead Sea Scrolls: PR: Junior standing or C.I. The Dead Sea Scrolls, their literary and historical context, and significance.

JST 3401 AS-JUD 3(3,0)
The Jewish People I: Introduction survey of the history and culture of the Jewish people from the beginnings of Judaism in the biblical era through the Graeco-Roman and rabbinic periods.

JST 3402 AS-JUD 3(3,0)
The Jewish People II: The life and history of the Jews in the medieval and modern worlds.
JST 3550 AS-JUD 3(3,0)
Introduction of Modernism into Judaism: The transition from traditional Judaism to modern Judaism in the 18th century, as epitomized by Moses Mendelssohn and writers of the Jewish Enlightenment (in translation).

JST 3701 AS-JUD 3(3,0)
History of the Holocaust: A comprehen-sive study of the Holocaust from 1933-1945, discussing the persecution of German Jews and the annihilation of the Jews in Europe.
JST 3751 AS-JUD 3(3,0)

Literature of the Holocaust: A study of the traumatic experience of the Holocaust in Europe as expressed and depicted in contemporary Jewish and Hebrew Literature.
JST 3810 AS-JUD 3(3,0)

The Jewish National Movement and Roots of Zionism: Roots of Zionism and Jewish nationalism and their relationship to modern anti-semitism, through analysis of European Jewish history and society.

Modern Hebrew Culture: The Develop-ment of the State of Israel: Political and ideological struggle for the establishment of the State of Israel, with emphasis on forces which shaped contemporary Israeli society and politics.

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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

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## Availability of Courses

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## LAE 3414 ED-IP 3(3,0)

Literature for Children: PR: Phase I or C.I. General survey of books and mater-ials; criteria for analysis and evaluation; types of books available considered in terms of interests, needs, and abilities of children.

## LAE 3504 ED-IP 3(3,0)

Language Acquisition: Examines development of oral language (birth - third grade) and the beginnings of literacy acquisition (birth - age three). Addresses common communicative disorders and intervention methods.

LAE 4314 ED-IP 3(3,0)
Language Arts in the Elementary School: PR: Phase I or C.I. Content, principles, materials, and techniques involved in teaching, speaking, listening, writing, and spelling in the elementary school; organizing for instruction.

LAE 4342 ED-IP 3(3,0)
Teaching Language and Composition: PR: EDG 4323. Techniques and methods in teaching of dialects, semantics, the various grammars. A survey of composition and rhetorical methods of selected authors.

English Instructional Analysis: PR: EDG 4323. Course objectives for a school curriculum and methods and materials which have special application for teaching English at the middle grades and high school.

LAE 4361 ED-IP 3(3,0)
Literacy Strategies for Middle and Secondary School: PR: Meet College of Education Admission requirements, or C.I. Examination of theory, strategies, resources and implementation options for effective middle and secondary reading and writing programs, to assist preservice teachers to understand the adolescent reader and writer.

## LAE 4464 ED-IP 3(3,0)

Survey of Adolescent Literature: This course is designed to explore adolescent literature from both an educational and an historical perspective.

## LAE 5195 ED-IP 3(3,0)

CFWP Teacher Consultant: PR: C.I. This course is designed for Fellows of the CFWP Summer Institute who will plan, practice, and present writing inservice components to public schools.
LAE 5295
ED-IP
1-3(1-3,0)

Writing Workshop I: PR: C.I. Students will engage in exploration and practice of effective writing strategies. May include teaching small groups of students. May be repeated for credit.

LAE 5319 ED-IP 3(3,0)
Methods of Elementary School Language Arts: PR: EDG 4323. Principles, procedures, organization and current practices in reading, writing, listening, and talking.

LAE 5337 ED-IP 3(3,0)
Literacy Strategies for Middle and Secondary Teaching : PR: Graduate standing or C. I. Designed to assist teachers and graduate students in understanding the adolescent learner. This course will examine theory, strategies, research, resources and implementation options for effective middle and secondary literacy programs.

LAE 5338 ED-IP 3(3,0)
Teaching Writing in Middle and High School: PR: EDG 6236 or C.I. Techniques and methods in teaching dialects, semantics, and the various grammars within the context of writing.

LAE 5346 ED-IP 3(3,0)
Methods of Teaching English Language Arts: PR: EDG 6236 or C.I. Designed for alternative certification and Masters of Arts students to explore the strands, methods and materials related to school curriculum in teaching English.

LAE 5367 AS-ENG 3(3,0)
English Composition and Literature for Teachers of Advanced Placement: PR: Graduate standing
and C.I. A two-week summer institute for secondary school teachers preparing to teach Advanced Placement courses.

LAE 5372 AS-ENG 3(2,1)
Theory and Practice in Composition: PR: Senior standing or C. 1. Intensive study of theories of composition, with practical experience in the writing laboratory and in composition classes.

LAE 5415 ED-IP 3(3,0)
Children's Literature in Elementary Education: Survey of children's litera-ture: criteria for selection according to literary elements and child development needs. Methods for presenting to children; integrating literature with elementary curricula.

## LAE 5465 ED-IP 3(3,0)

Literature for Adolescents: PR: Senior standing or C.I. Selecting and evaluating books for adolescents with emphasis on the use of literature in the development of young people.

LAE 5495 ED-IP 3(3,0)
Assessing Writing: PR: C.I. Students will explore a variety of strategies for assessing students' writing including holistic scoring, primary trait scoring, and portfolio assessment.

LAH 3130 AS-HIST $\mathbf{3 ( 3 , 0 )}$
Latin American History I: PR: EUH 2000 and 2001 or C.I. The Colonial period.

## LAH 3200 AS-HIST 3(3,0)

Latin American History II: PR: EUH 2000 and 2001 or C.I. The National period.
LAH 3400 AS-HIST 3(3,0)
History of Mexico and Central America: PR: EUH 2000 and 2001 or C.I. A survey of Mexican and Central American history from Pre-Columbian times to the present.

LAH 3470 AS-HIST 3(3,0)
History of the Caribbean: PR: EUH 2000 and 2001 or C.I. History of Cuba, Puerto Rico, Dominican Republic, and Haiti from Pre-Columbian times to the present.

## LAH 5713 AS-HIST 3(3,0)

Colloquium in U.S.-Latin American Relations: PR: Senior Standing and C.I. The course will analyze U.S.-Latin Amer-ican relations from an historical perspec-tive. It will be presented through readings and discussion of selected materials.
LAS 4023 AS-AAS 3(3,0)

African Caribbean Experience: PR: Junior standing or C.I. Interdisciplinary study of the evolution of African Carib-bean culture, its influence on institutions, social and political movements, and contemporary Caribbean society.

## LAT 1120 AS-LANG 4(4,1)

Elementary Latin Language and Civilization I: Introduces the student to Latin culture through the major language skills: listening, speaking, reading and writing. Open only to students with no experience in this language.

## LAT 1120H AS-LANG 4(4,1)

Honors Elementary Latin Language and Civilization I: Same as LAT 1120 with honors-level content.

LAT 1121 AS-LANG 4(4,1)
Elementary Latin Language and Civilization II: PR: LAT 1120 or equivalent. Continuation of LAT 1120.

## LAT 1121H AS-LANG 4(4,1)

Honors Elementary Latin Language and Civilization II: PR: LAT 1120H or equivalent. Same as LAT 1121 with honors-level content.
LIN 3010 AS-ENG 3(3,0)

Principles of Linguistics: PR: ENC 1102. An overview of the modern linguist's approach to language. Analytic methods of phonology, morphology, syntax. Brief systematic survey of dialectology, language acquisition, and semantics.

LIN 3640 AS-PSYCH 3(3,0)
Psychology of Oral Communication: Psychological principles involved in the communicative process, with application to individuals and groups.

## LIN 3716 HPA-COMD 3(3,0)

Language Development: Birth Through 8 Years.: PR: DEP 2004. Study of the language acquisition process in children from birth through eight years and how meaning is conveyed through sounds, words, and sentences.

## LIN 3717 HPA-COMD 3(3,0)

Language Development: 9-18 Years: PR: LIN 3716. Study of the language acquisition process in children from nine through eighteen years and how meaning is conveyed through sounds, words, and sentences.

LIN 4100 AS-ENG 3(3,0)
History of the English Language: PR: ENC 1102 and Sophomore standing. Study of the English language and its development from Anglo-Saxon to Modern.

LIN 4612 AS-ENG 3(3,0)
African American English: PR: ENC 1102 and Sophomore standing. A study of the phonology,
morphology, and syntax of African American English. Provides an understanding of the implications of African American English in contemporary society.

## LIN 4643 AS-ENG 3(3,0)

Cross Cultural Communication: PR: ENC 1102, Junior standing. Studies of the styles of spoken, written, and nonverbal communication of selected cultural groups, including men and women, Afroand Anglo-Americans, Germans and French, Hispanics, Arabs, and Japanese.

LIN 4660 AS-ENG 3(3,0)
Linguistics and Literature: PR: LIN 3010. Investigation of language study as an aid to understanding literature. Topics include analysis of figurative language, languages as characterization, cohesion, sentence and discourse structure.

LIN 4680 AS-ENG 3(3,0)
Modern English Grammar: PR: ENC 1102 and Sophomore standing. Emphasis upon the analysis and comparison of traditional, structural, and transforma-tional grammar.

## LIN 4711 HPA-COMD 3(3,0)

Language Analysis: PR: LIN 3716 and LIN 3717. Introduction to procedures for sampling, analyzing, and describing language across the lifespan.

## LIN 4711L HPA-COMD 1(0,1)

Language Analysis Lab: PR: LIN 3716 and LIN 3717. Introduction to procedures for sampling, analyzing and describing language samples across the lifespan.

## LIN 4801 AS-ENG 3(3,0)

Language and Meaning: PR: ENC 1102 and Sophomore standing. A linguistic study of the nature of language, meaning, and the ways in which man uses language in various social, cultural, institutional, and professional settings.

## LIN 5137 AS-ENG 3(3,0)

Linguistics: PR: Senior or graduate standing or C.I. Modern linguistic theories and studies focusing on language acquisition and development, contemporary American English, semantics, and para-linguistics.

## LIN 5675 AS-ENG 3(3,0)

English Grammar and Usage: PR: Graduate Status and C.I. An overview of modern grammar, including structural, transformational and rhetorical grammar, along with an examination of controversial usage.

## LIN 5705 HPA-COMD 3(3,0)

Psycholinguistics: PR: Graduate status or C.I. Foundations of language in affective consciousness and the human nervous system. Pragmatic analysis of word meaning and its precise scientific
measurement. Implications for communicative disorders.
LIS 4301 ED-IP 3(3,0)
Production of Materials for Media Center: PR: LIS 4428. Skill in producing teacher and student-made materials. Emphasizes graphic, photographic, and audio techniques for schools. Lab TBA.

LIS 5356 ED-ED F 3(3,0)
Technologies of Instruction \& Informa-tion Management: PR: Acceptance into Ed Media program or C.I. Theories and practices in utilizing instructional media and information technologies. Emphasis on new and emerging technologies and their effects on the school and media program.

LIS 5562 ED-ED F 3(3,0)
Media for Children and Young Adults: PR: Acceptance into Ed Media Program or C.I. Survey of materials for children's and young adults' informational and recreational needs; analysis, evaluation, and utilization of print and non-print materials.

LIT 2000 AS-ENG 3(3,0)
Introduction to Literary Interpreta-tion: PR: ENC 1102. Interpretation of fiction, drama, verse: conflict, characteri-zation, point of view, rhetorical and poetic devices, figurative language, verse forms; application of critical approaches to selected works.

LIT 2110 AS-ENG 3(3,0)
World Literature I: PR: ENC 1102. Poetry, prose, and drama selected from ancient Hebrew, Greek, and Oriental literature and from that of Renaissance Europe.

LIT 2120 AS-ENG 3(3,0)
World Literature II: PR: ENC 1102. Readings from Moliere, Voltaire, Goethe, Pushkin, Balzac, Tolstoy, Ibsen, Mann, Kafka, Camus, and others.

LIT 2120H AS-ENG 3(3,0)
World Literature II - Honors: Same as LIT 2120, with honors-level content.
LIT 3082 AS-ENG 3(3,0)
Continental European Fiction Since 1900: PR: ENC 1102. A selection of significant works of fiction written in various languages during the present century, read in translation.

LIT 3192 AS-ENG 3(3,0)
Caribbean Literature: PR: ENC 1102. Traces how Caribbean societies have achieved self-expression through documentary writing, prose fiction, and popular culture; in English.

LIT 3202 AS-ENG 3(3,0)
Death and Dying: PR: ENC 1102. Considering the topic of death and dying through a study of
literature, the course includes facts, psychological impact, ideological responses to death and identity.

## LIT 3313 AS-ENG 3(3,0)

Science Fiction: PR: ENC 1102. An in-vestigation of science fiction as a literary form, together with selected readings.

LIT 3354 AS-ENG 3(3,0)
Ethnic Literature in America: PR: ENC 1102. Contributions of linguistic and ethnic groups of non-English origin to the literature of the United States.

## LIT 3383 AS-ENG 3(3,0)

Women in Literature: PR: ENC 1102. Fiction, poetry, drama and non-fiction by selected women writers, such as Emily Dickinson, Jane Austen, George Eliot, Kate Chopin, Zora Neale Hurston, Toni Morrison, Adrienne Rich, Gwendolyn Brooks.

## LIT 3394 AS-ENG 3(3,0)

Literature of AIDS: PR: ENC 1102. To familiarize students with the new genre of literature that has arisen related to AIDS. Essays, short stories, plays, poetry, diaries, and novels will be covered.

## LIT 3482 AS-ENG 3(3,0)

Literature \& Popular Culture: PR: ENC 1102. Analysis of media to determine popular values in the formation of popular cultural perceptions.

## LIT 3905 AS-ENG 3(3,0)

Directed experience in Literature: PR: ENC 1102, C.I. Individualized topics of study and/or research in literature with personalized faculty direction. May be repeated for credit.

## LIT 3911H AS-ENG 1(1,0)

Research Methods - Honors: PR: Honors Student Status or consent of Honors coordinator. Introduction to scholarship and practical research in literature and writing.

LIT 4043 AS-ENG 3(3,0)
Modern Drama As Literature: PR: ENC 1102. A study of important plays, playwrights, themes, movements, and styles in modern American, British, and European drama.

## LIT 4184 AS-ENG 3(3,0)

Irish Literature: PR: ENC 1102, ENG 3014. Study of literature written in Ireland, within the context of Irish history, politics, culture and colonial experience.

LIT 4285H AS-ENG 3(3,0)
Faces of Evil: PR: ENC 1102. An Honors seminar on the literature and film depictions of hatred, racism, and other evil.

Post-World War II Fiction: PR: ENC 1102. An investigation of various modes of reality in the works of significant postmodernist world authors, crossing cultural boundaries.
LIT 4374 AS-ENG 3(3,0)
Literature of the Bible: PR: ENC 1102 or ENG 3014 or C.I. Literary forms in the Bible - narrative, poetic, and dramatic - and their reflection in modern literature.

LIT 4433 AS-ENG 3(3,0)
Survey of Technical and Scientific Literature: PR: ENC 4293 or C.I. An analysis of the historical development of technical and scientific writing from the Renaissance to the present.

## LIT 4554 AS-ENG 3(3,0)

Advanced Feminist Theories: PR: ENC 1102, WST 3015 or ENG 3014. An advanced exploration of feminist critical theories and practices.

LIT 4937H AS-ENG 3(3,0)
English Honors Seminar: PR: Honors Student Status or consent of Honors coordinator. In-depth study of language and/or literature with an emphasis on creative and critical abilities.

## LIT 5028 AS-ENG 3(3,0)

Form and Theory of Short Story: PR: Graduate status or C.I. Evolving forms and theories of short fiction and the implications of form and theory.

LIT 5039 AS-ENG 3(3,0)
Studies in Contemporary Poetry: English language poetry from 1945 to the present. Emphasis will be on American poets, but others such as English or Australian will be included.

LIT 5097 AS-ENG 3(3,0)
Studies in Contemporary Fiction: PR: Senior standing or C.I. Fiction in the last 20 years in the United States and Britain. May be repeated for credit when content is different

LIT 5250 AS-ENG 3(3,0)
The Victorian Age: Poetry: PR: Graduate standing or C.I. Poets of the Victorian period, including Tennyson, the Brownings, Arnold, Hopkins, Hardy, the Rossettis, Emily Bronte, and others.

LIT 5269 AS-ENG 3(3,0)
Nineteenth-Century Essays: PR: Graduate standing or C.I. English non-fiction prose of the 19th century.

LIT 5309 AS-ENG 3(3,0)
Popular Culture and Media: PR: Graduate standing or C.I. Study of contemporary media and the
literature of popular culture.

## LIT 5366 AS-ENG 3(3,0)

The Romantic Revolt (19th Century Literature): PR: Senior standing or C.I. The romantic revolt in poetry and prose; English, American and Continental literature from 1798 to 1832.
LIT 5387 AS-ENG 3(3,0)

Captives, Housewives, and Coquettes: PR: Graduate status or C.I. Course considers early American women's literature from 17th to 19th centuries

LIT 5389 AS-ENG 3(3,0)
Studies in Gender \& Fiction Writing: PR: Graduate status or C.I. Graduate study of gender's implications for teaching and practice of fiction writing
LIT 5556 AS-ENG 3(3,0)

Advanced Feminist Theories: PR: Graduate status or C.I. Graduate level Feminist Theories from "French Feminism" to "Critical Race Theories."

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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

MAA 4226 AS-MATH $\mathbf{4 ( 4 , 0 )}$
Advanced Calculus I: PR: MHF 2300 and MAC 2313 or C.I. Limits, sequences, and continuity, differentiation and integration. Derivations of integrals. Infinite series and convergence. The BalzanoWeierstrass Theorem and the Heine-Borel Theorem. Extensions in Euclidian n-space.

MAA 4227 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$
Advanced Calculus II: PR: MAA 4226 or C.I. Continuation of MAA 4226.
MAA 5210 AS-MATH $\mathbf{4}(\mathbf{4}, \mathbf{0})$
Topics in Advanced Calculus: PR: MAA 4226 or equivalent. Topics in multivariable calculus, including limits, continuity, integration, differentiation, Taylor's theorem, inverse and implicit function theorems

MAA 5405 AS-MATH 3(3,0)
Complex Variables: PR: MAC 2313 or C.I. Analytic functions. Integration in the complex plane. Laurent series and residue calculus. Inversion of Laplace transformations. Conformal mappings. Applications in engineering and the physical sciences.

MAA 5416 AS-MATH $3(3,0)$
Foundations of Analysis: PR: MAA 4226. Topological spaces, compactness results, connectedness, analytical and differentiable manifolds, topological groups, Lie groups, representation theory for
classical groups, Green, Stoke and Gauss' theorems.

## MAC 1105 AS-MATH 3(3,0)

College Algebra: PR: Intermediate algebra or 2 years of high school algebra or C.I. Inequalities. High degree poly-nomials. Graphs, rational, logarithmic, and exponential functions. Systems of equations, matrices, determinants, induc-tion. This course prepares students for higher-level mathematics courses. Course graded "A", "B", "C", "NC", or "F"

## MAC 1105H AS-MATH <br> 3(3,0)

Honors College Algebra: PR: Appro-priate score on placement test. Analysis of functions (including polynomial, rational, exponential, logarithmic), analysis of conic sections, analysis of systems of linear equations, sequences and series, mathematical induction, and the binomial theorem. Course graded "A", "B", "C", "NC", or "F."

## MAC 1114 AS-MATH 3(3,0)

College Trigonometry: PR: MAC 1102 or 2 years of high school algebra or C.I. The circle arc length, circular functions, identities, inverse functions, applications to simple harmonic motion, function of angles, complete development of triangle solving. Course graded "A", "B", "C", "NC", or "F"

## MAC 2147 AS-MATH 5(5,0)

Mathematics for Calculus: PR: Solid background in algebra or trigonometry, or C.I. For students with good mathematical backgrounds who do not want to go directly into calculus. Topics include matrices, determinants, permutations, combinations, sequences, series, induc-tion, trigonometric functions. Course graded "A", "B", "C", "NC", or "F"

## MAC 2233 AS-MATH 3(3,0)

Concepts of Calculus: PR: MAC 1105 or C.I. The differential and integral calculus of rational, exponential and logarithmic functions, with applications to business analysis. Not open to students with credit in MAC 2253 or MAC 2311. Course graded "A", "B", "C", "NC", or "F"

## MAC 2241 AS-MATH 4(4,0)

Calculus for Life Sciences: PR: MAC 1105. Discrete dynamical systems, derivatives and dynamics, applications of derivatives, integrals and their applications. For biologists and others required to have one semester of calculus. Course graded "A", "B", "C", "NC", or "F"

MAC 2253 AS-MATH 3(3,0)
Applied Calculus I: PR: MAC 1105 and MAC 1114 or C.I. Differential and integral calculus. An introduction to differential equations and Laplace Trans-forms. Applications to engineering tech-nology. Not open to students with credit in MAC 2233 or MAC 2311. Course graded "A", "B", "C", "NC", or "F"

Calculus for Scientists \& Engineers I: PR: MAC 1105 and MAC 1114. Same material, different order, as MAC 2311, MAC 2312, and MAC 2313. Only for Engineering, Chemistry, Physics, and Mathematics students. Not open to students with credit in MAC 2311, MAC 2312, and MAC 2313. Course graded "A", "B", "C", "NC", or "F"

## MAC 2281H AS-MATH 4(4,0)

Calculus for Scientists and Engineers I (Honors): PR: MAC 1105 and MAC 1114 or Consent of Honors Program. Same material as MAC 2281, taught at the Honors level. Only for Engineering, Chemistry, Physics, and Mathematics students. Not open to student with credit in any other calculus sequence. Course graded "A", "B", "C", "NC", or "F"

MAC 2282 AS-MATH (4,0)
Calculus for Scientists \& Engineers II: PR: MAC 2281. Same material, different order, as MAC 2311, MAC 2312, and MAC 2313. Only for Engineering, Chemistry, Physics, and Mathematics students. Not open to students with credit in MAC 2311, MAC 2312, and MAC 2313.

MAC 2283 AS-MATH (4,0)
Calculus for Scientists \& Engineers III: PR: MAC 2282. Same material, different order, as MAC 2311, MAC 2312, and MAC 2313. Only for Engineering, Chemistry, Physics, and Mathematics students. Not open to students with credit in MAC 2311, MAC 2312, and MAC 2313.

## MAC 2283H AS-MATH (4,0)

Calculus for Scientists and Engineers III (Honors): PR: MAC 2282H or MAC 2282 and consent of Honors Program. Same material as MAC 2283, taught at the Honors level. Only for Engineering, Chemistry, Physics, and Mathematics students. Not open to students with credit in any other calculus sequence.

## MAC 2311 AS-MATH 4(4,0)

Calculus with Analytic Geometry I: PR: MAC 1105 and MAC 1114 or equivalent or C.I. The differential and integral calculus of algebraic and elementary transcendental functions with geometric and physical applications. Topics from analytic geometry include coordinate systems, vectors, lines, conic sections, transformations of coordinates, and polar coordinates. During the 2nd and 3rd semesters the topics also include sequences and series, Taylor series, and the differential and integral calculus for functions of several variables. Course graded "A", "B", "C", "NC", or "F"

## MAC 2311H AS-MATH (4,0)

Calculus with Analytic Geometry I (Honors): Differential and integral calculus, emphasizing understanding basic concepts and their applications. Students will complete projects on their own. For honors students from all disciplines. Course graded "A", "B", "C", "NC", or "F"

## MAC 2312 AS-MATH (4,0)

Calculus with Analytic Geometry II: PR: MAC 2311 or C.I. Continuation of MAC 2311.

Calculus with Analytic Geometry II (Honors): Continuation of MAC 2311H.
MAC 2313 AS-MATH (4,0)
Calculus with Analytic Geometry III: PR: MAC 2312 or C.I. Continuation of MAC 2312.
MAC 2313H AS-MATH $\mathbf{4}(\mathbf{4}, \mathbf{0})$
Calculus with Analytic Geometry III (Honors): Continuation of MAC 2312H.

## MAC 3103H AS-MATH 3(3,0)

Systems Modeling and Simulation: PR: MAC 2312. Population growth dynamics; spread of an epidemic; ecological predator-prey relationships; insulin and its use in the control of diabetes; economic systems.

MAD 4203 AS-MATH 4(4,0)
Combinatorics and Graph Theory: PR: MAC 2312 and STA 2023. Counting principles, inclusion/exclusion principle, recurrence relations, generating functions, properties of graphs and diagraphs, trees, path problems, coloring planarity, connectiveness matchings and coverings, applications.

## MAD 5205 AS-MATH 3(3,0)

Combinatorics and Graph Theory II: PR: MAD 4203 or C.I. Polya's theory of counting; Latin squares and rectangles; block designs; coding theory; probabi-listic methods; hypergraphs; applications.

MAE 2801 ED-IP 4(3,1)
Elementary School Mathematics: PR: MAC 1105 or MGF 1106. Mathematics appropriate for the elementary school including the six basic sets of numbers, concepts, learning sequences, algorithms, problem-solving techniques, error patterns, number systems, and geometry.

MAE 4300 ED-IP 3(3,0)
Exploring Mathematics: Provides students with the knowledge and skills to design, implement, and facilitate the development of mathematics concepts and skill through an integrated developmentally appropriate curriculum.

MAE 4326 ED-IP 3(3,0)
How Children Learn Mathematics: PR: MAE 2801 or C.I., and admission to Phase II. Instructional strategies, learning activities, the use of manipulatives, lesson planning, evaluation of mathematical learning, and diagnostic techniques.

MAE 4360 ED-IP 4(3,2)
Mathematics Instructional Analysis: PR: EDG 4323. Study of course objectives for the middle grades and high school curriculum and survey of methods and materials which have special
application for teaching mathematics.
MAE 4634 ED-IP 3(2,1)
Programs in Teaching of Mathematics: PR: C.I. A consideration of special programs, strategies, and materials. Emphasis on individual needs of students.

MAE 5318 ED-IP 3(3,0)
Current Methods in Elementary School Mathematics: PR: EDG 4323. Strategies of instruction of computation and concepts of number, geometry, and measurement; instructional materials. (Meets Elementary Education certification requirements.)

MAE 5356 ED-IP 3(3,0)
Teaching General Mathematics in the Secondary School: PR: MAE 3330 or C.I. This course addresses specific techniques for developing general mathematics skills and concepts beginning in grade 6 . Problem solving, motivation, and innovative methods are explored.

MAE 5395 ED-IP 3(3,0)
Teaching Measurement in Schools: Metric system, methods of developing different measurement skills and concepts, and curriculum changes needed to accommodate measurement.

MAE 5935 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$
Post-Secondary Mathematics: The course will focus on issues which are faced by teachers of collegiate mathema-tics. Topics will be selected from teaching issues, program issues, and other issues

MAN 3025 BA-MAN 3(3,0)
Management of Organizations: PR: Junior Standing, ACG 2071 or ACG 2023, ECO 2013, ECO 2023. Introduction to the theory and practice of managing formal organizations, including planning, organization theory, human behavior and control.

MAN 3025H BA-MAN 3(3,0)
Honors Management of Organizations: PR: Participation in honors program, junior standing, ECO 2013, ECO 2023 and ACG 2071 or ACG 2023. Introduc-tion to the theory and practice of manag-ing formal organizations, including plan-ning, organization theory, human behavior, and control. Applicable to honors students.

MAN 3301 BA-MAN 3(3,0)
Management of Human Resources: PR: MAN 3025, Junior Standing. Provides students with a complete, comprehensive review of essential human resource management concepts and techniques. Applicable to all students of management.

## MAN 4029 BA-MAN 3(3,0)

Service Organization Management: PR: MAN 3025 and ISM 3530. Study of the special characteristics, problems, and methods for managing service-oriented organizations.

Human Relations in Management: PR: MAN 3025. The study of individual, interpersonal, group, and intergroup problems in business organizations through the use of cases and experimental exercises.

## MAN 4240 BA-MAN 3(3,0)

Organizations: Theory and Behavior: PR: MAN 3025. A course providing a micro/macro approach to the study of organizations by integrating organizational theory and organizational behavioral science concepts.

MAN 4310 BA-MAN 3(3,0)
Human Resource Management Issues: PR: Junior standing, MAN 3301. An application-oriented course to give students in the area experiences generally reserved for practitioners in the field of human resource management and labor relations.

## MAN 4320 BA-MAN 3(3,0)

Human Resources Recruitment and Selection: PR: MAN 3301. A concentrated investigation of the methods appropriate to the development, implementation and administration of the staffing process in contemporary organizations

MAN 4330 BA-MAN 3(3,0)
Compensation Administration: PR: MAN 3301. Presentation of compensation theory and current pay related issues and their application to the design and administration of pay systems in large and small organizations

MAN 4350 BA-MAN 3(3,0)
Training and Development: PR: MAN 3301. This course focuses on training and development activities as performed by organizational specialists. Theory, issues, practices and problems are discussed.

MAN 4401 BA-MAN 3(3,0)
Labor Relations Management: PR: Junior standing, MAN 3301. The impact of employee organizations on labor relations, current problems, conflicts and trends; the development of managerial approaches to achieve labor-management cooperation.

MAN 4521 BA-MAN 3(3,0)
Production Planning and Control: PR: ISM 3530. In depth study on long-range, intermediate-range and short-range planning and control methods as applied to a manufacturing organization.

MAN 4540 BA-MAN 3(3,0)
Management Science \& Decision Support: PR: ISM 3005. Computer-based quantitative models and expert systems in organizations.

Procurement Management: PR: MAN 3025 and ISM 3530. An elective course in procurement management. Designed to provide the student with fundamental concepts and processes involved in the procurement of goods and services required by modern society.

MAN 4595 BA-MAN 3(3,0)
Computer-Based Operations Manage-ment: PR: ISM 3011. Application of production planning and control theories and Management Information Systems concepts to an integrated, computerized, real-world production environment.

## MAN 4600 BA-MAN $\mathbf{3 ( 3 , 0 )}$

International Management: PR: GEB 4361. The course examines issues involved in multinational management of business firms, with special emphasis on comparative management.

## MAN 4701 BA-MAN 3(3,0)

Business Ethics and Society: PR: MAN 3025. This course applies the ethics dimension to business decisions in today's complex political, social, economic and technological environment.

MAN 4720 BA-MAN $\mathbf{3 ( 3 , 0 )}$
Strategic Management: PR: Completion of the remainder of the Core Curriculum and graduating senior. Students assume a strategic view of organizations and inte-grate and apply material learned in their business courses to modern organizational problems and opportunities.

MAN 4802 BA-MAN 3(3,0)
Entrepreneurship: PR: MAN 3025, FIN 3403, and MAR 3023. Study of entrepre-neurship with emphasis on innovation, feasibility, planning, product and service concepts, and organizing financing and developing a new venture.

MAN 4941 BA-FIN 3(3,0)
Management Internship: PR: Manage-ment major, application approval, consent of department chair. Provides student with supervised, management-related work experience in a sponsoring organi-zation. See department for information; application required. NOTE: MAN 4941 may not be counted for restricted elective credit in management. Graded "S"/"U"

## MAN 5021 BA-MAN $1.5(1.5,0)$

Management Foundations: PR: Accep-tance to Graduate Study, ACG 5005 and ECO 5XXX (Economic Foundations). Theory and practice of managing organi-zations to include planning, organization-al theory, human behavior, and control.

MAN 5050 BA-MAN 2(2,0)
Management Concepts: PR: Acceptance in MBA program. Theory and practice of managing organizations to include planning, organizational theory, human behavior, and control.

Foundations of Production/Operations Management: PR: Acceptance into the graduate program and ECO 5415 or equivalent. Provides foundation in fundamental concepts, techniques, and applications of contemporary production and operations management to serve as tools for improving quality, productivity, and international competitiveness.

MAP 2302 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$
Differential Equations: PR: MAC 2313 or C.I. Methods of solution for first order equations. Linear equations. Laplace transforms. Series solutions. Selected applications.

MAP 2302H AS-MATH $\mathbf{3}(\mathbf{3}, \mathbf{0})$
Differential Equations (Honors): PR: MAC 2313 or C.I. Methods of solution for first order equations. Linear equations. Numerical methods; Laplace transforms. Series solutions. Selected applications. Students will complete projects. For Honors students from all disciplines.

MAP 3401 ECS-ENT $\mathbf{3}(3,0)$
Problem Analysis: PR: MAC 2311 or MAC 2353 or equivalent. Application of calculus techniques used in solving selected problems in Engineering Technology.

## MAP 4103 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$

Mathematical Modeling I: An overview of model construction. Model fitting, optimization models, empirical construc-tion and modeling dynamic behavior. Calculus and ordinary differential equations required.

MAP 4153 AS-MATH $\mathbf{3}(3,0)$
Vector and Tensor Analysis: PR: MAC 2313 or C.I. Vector calculus. The theorems of Green, Gauss and Stokes. Introduction to tensors. Application in engineering and physical sciences.

## MAP 4171 AS-MATH 3(3,0)

Optimization for Actuarial Science: PR: MAC 2312 and STA 2023. Linear and dynamic programming, project scheduling, integer programming, theory of queues and stochastic simulation.

MAP 4307 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$
Applications of Complex Variables (Advanced Engineering Math Series): PR: MAP 2302.
Analytic functions and complex integration. Residue integration, Taylor and Laurent series, conformal mapping and the application of complex analysis to Potential Theory.

## MAP 4363 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$

Applied Boundary Value Problems I: PR: MAP 2302 or C.I. Systems of linear equations. Fourier series. The eigenvalue problem of Sturm-Liouville. The method of Green's functions.
functions. The theory of Sturm-Liouville. Separation of variables. Applications involving the wave equation, heat equation and equation of Laplace.

MAP 4371 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$
Numerical Methods for Differential Equations: PR: MAC 2283 or MAC 2213, MAS 3105 or C.I. Numerical theory and practices used in solving ordinary differential equations and PDE. Covers Euler's method, trapezoidal rule, multi-step methods, Runge-Kutta, error control, finite differences, implicit and explicit schemes, iterative methods, and stability.

## MAP 5117 AS-MATH 3(3,0)

Mathematical Modeling: PR: STA 4321, MAP 4363 or C.I. Introduction to modeling in industrial and scientific applications; techniques for studying statistical and deterministic models.

## MAP 5336 AS-MATH 3(3,0)

Ordinary Differential Equations and Applications: PR: MAP 2302 or C.I. Existence and uniqueness of solutions of differential equations, systems of ordinary differential equations, autonomous systems, phase plane analysis, stability, bifurcations.

## MAP 5385 AS-MATH $3(3,0)$

Applied Numerical Mathematics: PR: MAP 2302 or C.I. Classical topics or numerical analysis and their applications, Romberg integration, Richardson extra-polation, Gaussian quadrature schemes.

## MAP 5396 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$

Splines and Data Fitting: PR: MAS 3106, MAS 3105, MAP 2302, or C.I. Univariate splines and their application to data fitting. Applications to regression analysis, differential and integral equations. Algorithms to use different types of splines in computation.

MAP 5404 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$
Mathematical Foundations for Indus-trial Engineering and Operations: PR: MAP 2302, ESI 5219 or equivalent, ESI 4312, or C.I. Methods of proof, set theory; basic elements of topology, real analysis, graph theory, and matrix analysis.

## MAP 5407 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$

Applied Mathematics I: PR: MAP 2302 or C.I. Calculus of variations. Hamilton's principle, Rayleigh-Ritz method, Sturm-Liouville theory, Green's functions for ordinary differential equations, introduction to integral equations

MAP 5426 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$
Special Functions: PR: MAP 2302 or C.I. Series and integral representations, generating functions, recurrence relations and orthogonality properties of the special functions. Emphasis on Bessel, Legendre and hypergeometric functions.

Advanced Mathematics for Engineers: PR: MAP 2302 or C.I. Linear Algebra and matrix methods, ordinary differential equations, Fourier series, partial differential equations, numerical methods for differential equations, and applications to engineering.

## MAP 5514 AS-MATH 3(3,0)

Linear and Nonlinear Waves I: PR: MAP 2302, MAP 4363, or C.I. Equations of motion in inviscous and viscous fluids, energy equation and energy flux, linear theory of gravity and capillary-gravity waves, variational principles for water waves.

MAP 5711 AS-MATH $\mathbf{3}(\mathbf{3}, 0)$
Scientific Computing: PR: MAC 2313, MAP 2302 or C.I. Basic programming skills using Mathematica, Maple, Matlah, or Java in solving basic scientific computing problems; preparing students for advanced computational methods and algorithms.

## MAP 5931 AS-MATH 1(1,0)

Research Seminar: Four instructors will introduce the students to a research area by presenting necessary background and presenting current investigations. Different branches of mathematics will be presented for a sense of diversity.

## MAR 3023 BA-MAR 3(3,0)

Marketing: PR: Junior standing. Study of functions, institutions, and basic problems in marketing of goods and services in our domestic economy and abroad.

MAR 3023H BA-MAR 3(3,0)
Marketing - Honors: PR: Junior stand-ing, admission to the Honors Program. Honors introductory course in marketing. Topics include customer orientation, segmentation, positioning, strategic marketing management, implementation, and control.

MAR 3323 BA-MAR 3(3,0)
Integrated Marketing Communication: PR: MAR 3023. Planning and execution of advertising, sales promotion, and public relations programs consistent with integrated marketing communications programs.

MAR 3391 BA-MAR 3(3,0)
Professional Selling: PR: MAR 3023. Written and verbal communications skills applied to marketing settings. A signifi-cant portion of the course is devoted to the study of professional selling.

MAR 3403 BA-MAR 3(3,0)
Sales Force Management: PR: MAR 3023. An overview of the sales management process. Emphasis on sales program formulation and implementation.

MAR 3503 BA-MAR 3(3,0)
Customer Behavior: PR: MAR 3023. End user and business customer buying behavior, building
long-term customer relationships, segmentation of markets and positioning strategies.

## MAR 3613 BA-MAR 3(3,0)

Marketing Analysis and Research: PR: MAR 3023, CR: One of the following; ECO 3401, ECO 3411, STA 3023, STA 3032. Analytical tools and their application to marketing problems and decision making. Forecasting, financial analysis, and acquisition of primary data through market research are emphasized.

MAR 3641 BA-MAR 3(3,0)
Marketing Intelligence: PR: MAR 3023. Contemporary sources and applications of information concerning external forces impacting market decision making.

MAR 3880 BA-MAR 3(3,0)
e-Marketing: PR: MAR 3023, CGS 2100. Course provides an in-depth study of the role of the internet in developing marketing strategies and plans.

MAR 4156 BA-MAR 3(3,0)
International Marketing: PR: MAR 3023. Investigates strategy, policy and the variables in international marketing decisions.

MAR 4231 BA-MAR 3(3,0)
Retailing Management: PR: MAR 3023. Analysis of the field of retailing.
Emphasis on planning for profit through management, inventory control, etc.
MAR 4711 BA-MAR 3(3,0)
Sports Marketing: PR: MAR 3023. Study of marketing as it applies to the sports and leisure industry.

## MAR 4712 BA-MAR 3(3,0)

Healthcare Marketing: PR: MAR 3023. Study of marketing as it applies to healthcare manufacturers, intermediaries and providers.

MAR 4724 BA-MAR 3(3,0)
Strategic Foundations in Global E-Business: PR: MAR 3023. Course inspects the forces shaping managerial decision-making in a new rapidly changing electronic global marketplace. Emphasis on product-market entry strategies, standardization/adaptation, and organizing for efficient international marketing operations.

MAR 4803 BA-MAR 3(3,0)
Marketing Management: PR: MAR 3503 and MAR 3613. Planning, organizing, implementing, monitoring and controlling marketing programs to effectively compete in dynamic and diverse business environments

Marketing Strategy: PR: MAR 4803. Marketing problems are explored, with emphasis on strategy formulation and integrative marketing decision-making.

MAR 4841 BA-MAR 3(3,0)
Services Marketing: PR: MAR 3023. Examination of marketing in services industries, with particular emphasis on unique aspects of services marketing, the service marketing mix, and the implementation of services strategies.

MAR 4941 BA-MAR 3(3,0)
Marketing Internship: PR: Marketing major, application approval, consent of department chair. Provides student with supervised, market-related work experience in a sponsoring organization. Application required.

## MAR 5055 BA-MAR 3(3,0)

Marketing Concepts: PR: Acceptance into the graduate program. Study of functions, institutions, and basic marketing of goods in the U.S. economy.

## MAR 5941 BA-MAR 3(3,0)

Small Business Consulting: PR: Graduate status, all foundation classes, FIN 6406, MAR 6816. Provides students opportunity to apply knowledge learned in classroom to real business situations. Open to undergraduate majors in the College of Business Administration with approval of the department chair.

## MAS 3105 AS-MATH $\mathbf{4}(4,0)$

Matrix and Linear Algebra: PR: MAC 2312 or C.I. Matrices, determinants, vector spaces in Rn, linear independence, basis, solutions of systems, range of linear transformations, eigenvectors, Jordon Form, matrix functions, quadratic forms.

## MAS 3106 AS-MATH (4,0)

Linear Algebra: PR: MHF 2300, MAS 3105, or C.I. Abstract vector spaces, linear transformations, isomorphisms, projections, innerproducts, the spectral theorem, Jordon Canonical Form. (Only offered spring semester).

## MAS 3203 AS-MATH 3(3,0)

Introduction to Number Theory: PR: MHF 2300 or C.I. The course will include the following topics: inductive reasoning, factorization, the division algorithm and congruences.

MAS 4301 AS-MATH $\mathbf{3}(\mathbf{3 , 0})$
Algebraic Structures: PR: MHF 2300 or C.I. An introduction to groups, rings and fields.

## MAS 5145 AS-MATH 3(3,0)

Advanced Linear Algebra and Matrix Theory: PR: MAS 3105. LU and LDU decompositions,
linear spaces, inner product spaces, systems of linear equa-tions, eigenvalues and canonical forms, variational principles and applications.

MAS 5311 AS-MATH 3(3,0)
Abstract Algebra with Applications: PR: MAS 4301 or undergraduate abstract algebra. Group actions, the class equation, Sylow Theorems, polynomial rings, Euclidian domains, principal ideal domains, field extensions, modules, and semi-simple rings.

## MCB 2005C HPA-M\&M 4(3,2)

Microbiology for Health Professionals: PR: BSC 2010C, CHM 2045C or equivalent. A survey of microbiology for the health professional.

MCB 3020C HPA-M\&M 5(3,4)
General Microbiology: PR: BSC 2010C, CHM 2205, or CR: CHM 2210. Fundamentals of microbiology, evaluating microbial structure and function, metabolism, growth, genetics, virology environmental control, ecology, pathogenicity; and laboratory techniques.

MCB 3203 HPA-M\&M 3(3,0)
Pathogenic Microbiology: PR: MCB 3020C or C.I. Microorganisms producing disease in man and other animals; means of transmission; protection against disease.

MCB 3203L HPA-M\&M 1(0,3)
Pathogenic Microbiology: CR: MCB 3203. Laboratory investigation of pathogenic microorganisms, with emphasis on isolation and identification of pathogenic microorganisms.

## MCB 3522H HPA-M\&M 3(3,0)

Biotechnology and Genetic Engineering Seminar: PR: Honors Program. Principles, applications, laws, ethics and impact on society of biotechnology and genetic engineering in agriculture, medicine, forestry, environment, computer/ industrial/ chemical engineering and business administration.

## MCB 4114C HPA-M\&M 4(3,3)

Determinative \& Systemic Microbiology: PR: MCB 3020C, MCB 3203. Microbial classification taxonomic rules and nomenclature techniques for identification and interrelating the phyla and taxa of bacteria.

## MCB 4414 HPA-M\&M 3(3,0)

Microbial Metabolism: PR: MCB 3020C and BCH 4054. Interrelationship between cellular structure function and genetic traits in microorganisms. The interaction between microorganisms and their nutritional environment.

## MCB 4603C HPA-M\&M 3(3,0)

Environmental Microbiology: PR: PCB 3034 and MCB 3020C. Interrelationships between the biological activities of microorganisms and their terrestrial and aquatic environments.

Infectious Processes: PR: MCB 3020C or C.I. Discussion of current theories of the infectious process and the response of host cells and tissue to infection.

## MCB 5225 HPA-M\&M 3(3,0)

Molecular Biology of Disease: PR: Graduate standing or C.I. An in-depth study of the molecular biological mechanisms of diseases in experimental animal models and human populations

## MCB 5505 HPA-M\&M 3(3,0)

Virology: PR: MCB 3020C and BCH 4053. Nature of viruses and other intra-cellular parasites including structure, nomenclature propagation, isolation, propagation, and identification.

## MCB 5527 HPA-M\&M 3(3,0)

Genetic Engineering and Biotechnology: PR: PCB 3523 and PCB 4524 or C.I. Principles of Genetic Engineering/Biotechnology in Bacteria, Yeast, Viral, Mammalian, Non-mammalian systems, Plants, including human gene therapy, novel pharmaceuticals, recombinant proteins will be discussed in depth.

## MCB 5654 HPA-M\&M 3(3,0)

Applied Microbiology: PR: MCB 3020C or C.I. Microbial biochemistry of industrial processes including: economics, screening, scale up, quality control and applied genetics.

## MCB 5932 HPA-M\&M Variable

Current Topics in Molecular Biology: PR: Graduate standing or C.I. Selected current research topics from the primary literature reflecting recent advances in molecular biology. May be repeated for credit.

## MET 3101 ECS-ENT 3(3,0)

Fundamentals of Meteorology and Climatology: PR: MAC 1105 or C.I. Studies of the physical processes that determine the climate of a region. The methods of measurement and use of meteorological parameters.

## MGF 1106 AS-MATH $\mathbf{3}(\mathbf{3}, \mathbf{0})$

Finite Mathematics: PR: Intermediate algebra or 2 years of high school algebra or C.I. Introduction to logical structure, sets, probability, geometry, arrays, games. This course is intended for students who are not planning to take further courses in mathematics.

MHF 2104 AS-MATH 3(3,0)
Foundations of Discrete Math: PR: 2 years of high school algebra and 1 year of geometry or C.I. Basic mathematical logic, methods of proof in mathematics, and application to elementary discrete structure.

Logic and Proof in Mathematics: PR: Two years of high school algebra and one year of geometry or C.I. Basic mathematical logic. Methods of proof in mathematics. Application of proofs to elementary mathematical structures.

MHF 4404 AS-MATH 3(3,0)
History of Mathematics: PR: MAC 2312 or C.I. A chronological study of the evolution of mathematical thought from primitive counting through modern ideas of the 20th century. Recommended for prospective teachers in mathematics.

## MHS 5005 ED-HSW 3(3,0)

Introduction to the Counseling Profession: PR: Completion of Phase II of Education Professional Preparation or C.I. Overview of the philosophy, organization, administration, and roles of counselors in various work settings

## MIS 1031 ECS-AROTC 1(1,0)

Basic Military Science: Organization of the Army and ROTC. Career opportuni-ties, significance of military courtesy, discipline, customs, and traditions. Anal-ysis of weapons and equipment of the U.S. Army. May be repeated for credit.

## MIS 1400 ECS-AROTC 2(2,1)

Fundamentals of Leadership Development: Development of leadership abilities, including squad movement techniques. Fundamentals of Land Nav will be discussed.

## MIS 2120 ECS-AROTC 2(2,1)

Leadership Development - I: Development of leadership abilities through practical exercises. Includes platoon leadership assessment program, role of the NCO, land navigation, and conduct of briefings.

MIS 2300 ECS-AROTC 2(2,1)
Leadership Development - II: Develop-ment of leadership abilities. Includes first aid training, communications, the threat, offensive/defensive operations, patrolling, and troop leading procedures.

## MIS 3301 ECS-AROTC 4(4,1)

The Small Unit Leader: Analysis of the leader's role in directing and coordinating efforts of small units in tactical opera-tions. Includes land navigation, weapon systems, communications, defensive/ offensive operations and patrolling.

## MIS 3410 ECS-AROTC 4(4,1)

Leadership Responsibilities: A descrip-tion of the role and responsibility of the small unit leader. Includes principles of war, military instruction, land navigation, patrolling and offensive/defensive operations.

## MIS 4421 ECS-AROTC 4(4,1)

Military Law: A study of military law, the Army's maintenance management system, and a study of the obligations and responsibilities of a newly-commissioned officer.

## MIS 4430 ECS-AROTC 4(4,1)

Advanced Military Science: Study of the decision-making process; staff organization, estimating process, training, scheduling, and staff studies. Analysis of administration, personnel and Army supply system.

## MLS 3220C HPA-M\&M 3(3,3)

Techniques in Clinical Microscopy: Analysis of body fluids and urine by chemical and microscopic methods with interpretation and correlation to human disease.

MLS 3305C HPA-M\&M 3(3,0)
Hematology: PR: Admission to the professional phase of he MLS program or C.I. Overview of the hematopoietic system and disease states associated with blood and bone marrow

## MLS 3305L HPA-M\&M 1(0,6)

Hematology Lab: PR: MLS 3305C. Practical laboratory procedures routinely performed for analyzing hematologic abnormalities.

## MLS 3705 HPA-M\&M 3(3,0)

Concepts in Education/Management: PR: Admission to professional phase of the MLS Program or C.I. Introduction to laboratory management, health delivery systems, and educational practices in clinical settings.

MLS 4334C HPA-M\&M 3(3,2)
Hemostasis: Overview of hemostatic and fibrinolytic conditions at the time of disease and the relationship of lab tests to diagnosis.

## MLS 4420C HPA-M\&M 1(1,2)

Clinical Mycology: PR: Admission to the professional phase of the MLS program with C.I. Instruction and laboratory practice in the isolation and identification
of fungi associated with mycotic infections of man.
MLS 4430C HPA-M\&M 2(1,3)
Clinical Parasitology: PR: Admission to the professional phase of the MLS program or C.I. Instruction and laboratory practice in the examination and study of clinical material for the detection and identification of animal parasites.

## MLS $4460 \quad$ HPA-M\&M 2(2,6)

Clinical Pathogenic Microbiology: PR: or CR: MCB 3203 and admission to the professional phase of the MLS program. Isolation and pathogenic bacteria and serological methods; interpretation of abnormal results, with correlation to disease.

Immunodiagnostics: PR: PCB 3233. Theory and application of immunologic principles and their use in diagnosis of human disease.

## MLS 4550 HPA-M\&M 4(2,6)

Clinical Immunohematology: PR: Admission to the professional phase of the MLS program or C.I. Investigation of incompatible crossmatches; antibody identification, leukocyte antigens and identification procedures, problem solving.

## MLS 4625 HPA-M\&M 3(3,0)

Advanced Clinical Chemistry I: PR: CHM 2210. Correlation of lab test to specific disease states including deviations in carbohydrate, amino acid metabolism., renal function, gastric function, electrolytes, and blood gases.

MLS 4625L HPA-M\&M 1( 0,3)
Advanced Clinical Chem I Lab: CR: MLS 4625. Laboratory procedures routinely performed in a clinical chemistry laboratory.

## MLS 4630 HPA-M\&M 3(3,0)

Advanced Clinical Chemistry II: PR: Admission to professional phase of MLS or C.I. Correlation of laboratory tests to specific human disease states.

## MLS 4630L HPA-M\&M 1(0,3)

Advanced Clinical Chem II Lab: PR: CHM 2205 or C.I. CR: MLS 4630C. Performance of laboratory procedures routinely used in a clinical chemistry laboratory.

## MLS 4830C HPA-M\&M 4(4,8)

Interpretive \& Practical Clinical Chemistry: PR: Admission to the MLS program, MLS 4625C, MLS 4630C. Clinical instruction and practice in the clinical chemistry laboratory. Case studies, chemist review, hands on practice both in the student lab and affiliate.

MLS 4831C HPA-M\&M 4(4,8)
Interpretive \& Practical Immunohematology: PR: Admission to the MLS program, MLS 4550, MLS 4505C. Advanced study of principles of immunohematology. Application and performance of technique to solve problems in blood banking will be included.

## MLS 4832C HPA-M\&M 4(4,8)

Interpretive \& Practical Hematology: PR: Admission to the the MLS program, MLS 3305C, MLS 4334C. Advanced study of hematology and pathgophysio-logical correlation to hematology disorders. Correlation of case studies and clinical practice in both student labs and clinical affiliates.

MLS 4833C HPA-M\&M 4(4,8)
Diagnostic Microbiology: PR: Admis-sion to the MLS program, MLS 4460. Practical application of
modern bacterial procedures with clinical specimens to include mycology \& virology and appropriate quality control. Clinical practice in both student lab and affiliate.

## MLS 4834C HPA-M\&M 4(4,8)

Advanced Instrumentation: PR: Admission to the MLS program, MLS 4833C. An examination review \& practice of technologies impacting the clinical laboratory to include flow cytometry, PCR, LIS, robotics. Case studies will be a fundamental part of this course.

MLS 4910 HPA-M\&M 1(1,0)
Introduction to Clinical Research: PR: MLS 3220C, MLS 4625C, MLS 4550. Introduces MLS students to different types of research within the clinical setting.

## MLS 4933 HPA-M\&M 1(1,0)

Medical Technology Seminar: PR: MLS Senior status. Review of MLS course-work, case study discussions and guest lectures describing employment oppor-tunities. May be repeated for credit.

MLS 5710 HPA-M\&M 3(3,0)
Current Concepts in Laboratory Management: Overview of current administration and supervision concepts in a clinical laboratory to include laboratory planning, personnel administration, and financial management.

## MMC 3420 AS-COMM 3(3,0)

Mass Media Research Methods: PR: STA 2014C, Communication major. Theory and methods of research used by media professionals and academics, focusing on radio / TV and advertising / public relations research.

MMC 4200 AS-COMM 3(3,0)
Mass Communication Law: The legal rights and responsibilities of the mass media.
MMC 4254 AS-COMM 3(3,0)
Ad/Pr campaigns: PR: ADV 4000, PUR 4000 and either PUR 3100 or ADV 4101. Planning and managing communication campaigns that integrate both advertising and public relations strategies

MMC 4263 AS-COMM 3(3,0)
New Media Technologies: PR: Majors only, RTV 3200. An examination of the technologies impacting the communica-tions media environment and society.

MMC 4300 AS-COMM 3(3,0)
International Media: PR: Junior standing or C.I. The student will analyze different communication systems from around the world. There will be at least six case studies from any of these areas - Asia, Latin American, Western Europe, Middle East, Africa.

Contemporary Media Issues: PR: Jou 2100, PUR 3100 or RTV 3301. Relationship between the mass media and society; examination of social and ethical issues and responsibilities of the media's relationship with government.

MTG 4212 AS-MATH $\mathbf{4 ( 4 , 0 )}$
Modern Geometrics: PR: MAC 2311 or C.I. Sets of axioms and finite geometries, groups of transformations, Euclidean motions of 2 -space and 3 -space, convex-ity in 2 -space and 3 -space. Euclidean geometry of polygon and circle, constructible numbers, constructions and non-Euclidean geometry.

MTG 4302 AS-MATH $\mathbf{3 ( 3 , 0 )}$
Introduction to Topology: PR: MHF 2300 or C.I. Metric spaces, topological spaces, limit points, continuity, compactness, and connectedness.

MTG 5256 AS-MATH 3(3,0)
Differential Geometry: PR: MAA 4227 or C.I. Differentiable manifolds, tangent space and tangent bundle, flows and vector fields, Lie derivatives, cotangent space and cotangent bundles, Riemann metrics, connections and geodesics, applications in classical mechanics.

## MUC 1101C AS-MUSIC 2(1,1)

Composition I: PR: Open to qualified majors and non-music majors with C.I. Creative work in small forms. May be repeated for credit.

## MUC 2104C AS-MUSIC 2(1,1)

Composition II: PR: MUC 1101C and Music or composition major. Continuation of Composition I. Competence determined by faculty jury. May be repeated for credit.

MUC 3105C AS-MUSIC 2(1,1)
Composition III: PR: MUC 1101C and MUC 2104C. Continuation of Composition II. Competence determined by faculty jury.

MUC 3311 AS-MUSIC 3(2,2)
MIDI Sequencing I: PR: Keyboard ability, Junior standing, and C.I. Utiliza-tion of synthesizers, drum machines, and computers with MIDI sequencing.

## MUC 4106C AS-MUSIC 2(1,1)

Composition IV: PR: MUC 1101C, MUC 2104C, MUC 3105C. Continuation of Composition III. Competence determined by faculty jury.

MUC 4441 AS-MUSIC 3(3,0)
MIDI Sequencing II: PR: MUC 3311, Junior standing, and C.I. Continuation of sequencing, sampling, and inactive digital music technology.

Film/Video Composition: PR: MUC 1101C, MUC 2104C, MUC 3311, MUC 4441. Music composition for film, video, computer games.

MUE 2040 AS-MUSIC 2(2,0)
Introduction to Music Education: PR: None. An introduction to music education covering philosophy, history, and current practice and trends. Observation in schools required.

MUE 2210 ED-IP 3(3,0)
Early Childhood Music and Move-ment: An examination of the role of music and creative movement in the lives of young children.

MUE 2460 AS-MUSIC 1(0,2)
Brass Techniques: PR: MUED major, junior standing or C.I. Class instruction in brass playing and pedagogical techniques. May be repeated for credit.

MUE 2470 AS-MUSIC 1(0,2)
Percussion Techniques: PR: MUED major, junior standing or C.I. Class instruction in percussion playing and pedagogical techniques. May be repeated for credit.

MUE 3210 ED-IP 3(2,1)
Music in the Elementary School: Fundamental procedures for teaching elementary school music, stressing appropriate music materials and activities for different age groups; selected experience in music.

MUE 3440 AS-MUSIC 1(0,2)
String Techniques: PR: MUED major, junior standing or C.I. Class instruction in string playing and pedagogical techniques.

MUE 3450 AS-MUSIC 1(1,0)
Woodwind Techniques I: PR: MUED major, Junior standing or C.I. Class instruction in woodwind playing and pedagogical techniques.

MUE 3451 AS-MUSIC 1(1,0)
Woodwind Techniques II: PR: MUE 3450, MUED major, Junior standing or C.I. Continuation of Woodwind Techni-ques I, with emphasis on double reeds.

MUE 4311 ED-IP 2(2,0)
Elementary School Music Methods: PR: Junior standing, MUED major. Organization and administration of instruction for comprehensive music education, K-6; instructional planning, techniques, and materials for elementary music education.

MUE 4330 ED-IP 2(2,0)
Secondary School Music Methods: PR: MUE 4311 or C.I. Instructional planning, techniques and
materials in middle school, junior high and senior high classrooms; consideration of general music education program, evaluation materials and procedures.

## MUE 4480 AS-MUSIC 1(1,1)

Marching Band Techniques: PR: C.I. Principles of organizing and training marching bands: Planning, charting foot-ball shows, rehearsal problems. Guided observations. May be repeated for credit.

MUE 4481 AS-MUSIC 1(1,0)
Jazz Pedagogy: PR: Music major, MUT 1112 and C.I. Methods, materials, and resources for teaching jazz ensembles and improvisation at the secondary school level.

MUE 5695 ED-IP 3(3,0)
Trends in Arts Education: PR: Initial Certification or C.I. Investigation of current trends in arts education; development of strategies for utilizing understandings of arts education in the total curriculum of elementary students.

MUG 3104 AS-MUSIC 2(1,1)
Basic Conducting: Fundamental techniques and practice in conducting.
MUG 3202 AS-MUSIC 3(3,2)
Choral Conducting and Materials: PR: MUG 3104. Fundamental principles of choral conducting and rehearsal techniques including an examination of materials.

## MUG 3302 AS-MUSIC 3(3,2)

Instrumental Conducting and Materials: PR: MUG 3104. Fundamental principles of instrumental conducting and rehearsal techniques including an examination of materials.

## MUG 4103 AS-MUSIC

Advanced Conducting: PR: C.I. Study of advanced vocal or instrumental con-ducting techniques. Rehearsal procedures, selection of materials and program-building, interpretation of scores, study and performance of selected works.

MUH 4211 AS-MUSIC 3(3,0)
History and Literature I: PR: MUT 1112. In-depth study of the development of Western musical styles from antiquity to present.

MUH 4212 AS-MUSIC 3(3,0)
History and Literature II: PR: MUT 1112. Continuation of MUH 4211.
MUH 4218 AS-MUSIC 1(1,0)
Review of Music History: PR: C.I. A review of music history from Ancient Greece to the present.

Music History Proficiency Exam: PR: MUH 4212. A comprehensive examina-tion in music history. Required of music majors. May be repeated one time. Graded S/U.

MUL 2010 AS-MUSIC 3(2,1)
Enjoyment of Music: PR: Non-music majors only. Designed to develop an understanding of musical principles and techniques for listening to music.

MUL 2016 AS-MUSIC 3(3,0)
Evolution of Jazz: Survey of jazz literature and performance.
MUL 2720 AS-MUSIC 3(3,0)
Music of the World: Music in cross-cultural context. Relation of music to religion and society.
MUL 3400 AS-MUSIC 2(1,1)
Piano Literature I: PR: Major in Music or C.I. Survey of stringed keyboard literature from the 16th century to the present, with emphasis on technical, formal and performance problems.

MUL 3401 AS-MUSIC 2(1,1)
Piano Literature II: PR: MUL 3400. Continuation of MUL 3400.

## MUL 3432 AS-MUSIC 2(2,0)

String Literature: PR: Music major and C.I. Survey of string solo/chamber music literature from the 16th century to the present.

MUL 3441 AS-MUSIC 2(2,0)
Woodwind Literature: PR: Junior standing, C.I., Music major. Survey of woodwind literature from the 16th century to the present.

MUL 3442 AS-MUSIC 2(2,0)
Brass Literature: PR: Music major (Brass), Junior standing, C.I. Survey of brass solo/ensemble literature from 16th century to present.

MUL 3463 AS-MUSIC 2(2,0)
Percussion Literature: PR: Music major (Percussion), Junior standing, C.I. Survey of music written for percussion instruments.

MUL 3603 AS-MUSIC 1(1,1)
American/English Song Literature: PR: C.I. Survey of songs written by American or English composers.

German Song Literature: PR: Music major or C.I. Survey of German song literature.
MUL 3605 AS-MUSIC 1(1,1)
French Song Literature: PR: Music major or C.I. Survey of French song literature.
MUN 2023 AS-MUSIC 1(0,2)
Synthesizer Ensemble: PR: C.I. and keyboard ability. Rehearsal and performance of music for synthesizers. May be repeated for credit.

MUN 2442 AS-MUSIC $\mathbf{1}(1,0)$
Percussion/Mallet Ensemble: PR: C.I. Preparation and performance of music for percussion with mallets. May be repeated for credit

MUN 3113 AS-MUSIC 2(0,8)
Marching Band: PR: Admission by audition. Preparation for appearance at football games and special occasions. May be repeated for credit.

MUN 3123 AS-MUSIC $\mathbf{1}(0,3)$
Concert Band: Open to all students with audition. Study and performance of music for large ensembles. May be repeated for credit.

MUN 3143 AS-MUSIC $\mathbf{1}(0,4)$
Wind Ensemble: Open to all students by audition. Study and performance of music for wind ensemble and band. May be repeated for credit.
MUN 3283 AS-MUSIC $\mathbf{1}(0,5)$
Symphony Orchestra: PR: Audition. Open to all students by audition. Rehearsal and performance of works from the symphonic repertoire. May be repeated for credit.

## MUN 3313 AS-MUSIC 1(3,0)

University Choir: PR: C.I. Open to all students by audition. Study and performance of large ensemble music. Possible tours. May be repeated for credit.

## MUN 3323 AS-MUSIC $\mathbf{1 ( 0 , 3 )}$

Women's Chorus: PR: Audition and C.I. Study and performance of music for women's voices. Open to all students. May be repeated for credit.

MUN 3343 AS-MUSIC 1(0,3)
Madrigal Singers: PR: C.I. Open to all students by audition. Extra rehearsals and Madrigal Dinners required. Tours. May be repeated for credit.

MUN 3423 AS-MUSIC 1(0,2)
Woodwind Ensemble: PR: C.I. Open to all students. Study and performance of music for small
ensembles. May be repeated for credit.
MUN 3430 AS-MUSIC 1(1,0)
Trumpet Ensemble: PR: C.I. Rehearsal and performance of music for trumpet ensembles. May be repeated for credit.

MUN 3433 AS-MUSIC 1(0,2)
Brass Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3443 AS-MUSIC 1(0,2)
Percussion Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3444 AS-MUSIC $\mathbf{1}(1,0)$
Mallet Ensemble: PR: C.I. Preparation and performance of music for mallet ensemble. May be repeated for credit.

## MUN 3453 AS-MUSIC $\mathbf{1 ( 0 , 3 )}$

Piano Ensemble: PR: Open to Music Majors or C.I. Study and performance of music for small ensembles. May be repeated for credit.

## MUN 3483 AS-MUSIC $\mathbf{1 ( 0 , 2 )}$

String Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3494 AS-MUSIC $\mathbf{1}(1,1)$
Steel Drum Ensemble: PR: C.I. Rehearsal and performance of music arranged for steel drum band. May be repeated for credit.

MUN 3713 AS-MUSIC $\mathbf{1}(0,4)$
Jazz Lab: PR: C.I. Open to all students by audition. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3714 AS-MUSIC $\mathbf{1 ( 0 , 2 )}$
Jazz Combo: PR: Junior standing and C.I. Rehearsal and performance of music for small jazz combo, emphasizing improvisation. May be repeated for credit.

MUN 3717 AS-MUSIC $\mathbf{1 ( 0 , 3 )}$
Jazz/Pop Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

Vocal-Jazz Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 4473 AS-MUSIC $\mathbf{1 ( 0 , 2 )}$
Early Music Ensemble: PR: C.I. Study and performance of pre-classical music. May be repeated for credit.

## MUO 3503 AS-MUSIC 3(0,3)

Opera Workshop: PR: C.I. Study of expressive emotion in relation to musical theatre; staging and performance of prepared studies of popular music for vocal ensembles. May be repeated for credit.

MUS 1010 AS-MUSIC 0(9,2)
Music Forum: A series of special musical events required of music majors. Includes lectures and recitals by faculty, students, and guest artists.

MUS 2550C AS-MUSIC 3(2,2)
Introduction to Music Technology: PR: Music major (Music Education, Performance, BA). Utilization of computers and keyboards to acquire skills in midi sequencing, notation, CD ROMS, and the Internet.

MUS 3953 AS-MUSIC 0(1,0)
Recital Performance I: PR: Junior Level Applied Music and C. I. Public recital of 30 minutes to demonstrate performance skills. Graded S/U. May repeat one time.

## MUS 4293 AS-MUSIC 1(1,0)

Music Theatre Ensemble: PR: Junior standing and C.I. Rehearse, study, and preparation of musical theatre score for pit orchestra and off-stage singers, culminating in public performance with University Theatre. May be repeated for credit.

## MUS 4330 AS-MUSIC 2(1,1)

Recording Techniques for Classical Music: PR: MUS 2320 or C.I. Concert hall recording techniques for classical music.

## MUS 4347C AS-MUSIC 3(2,2)

Digital Notation: PR: MUC 3311. Work on projects utilizing computer notational software applications.

## MUS 4401 AS-MUSIC 2(1,1)

Studio Teaching: PR: C.I. Management of the music studio; responsibilities and techniques of private instruction for the studio teacher, principles of psychology of music. May be repeated for credit.

## MUS 4635C AS-MUSIC 3(2,2)

Sound Design: PR: MUC 3311, MUC 4441. Audio storage processing/ compression for digital
media.

## MUS 4645C AS-MUSIC 3(2,2)

Music Post Production Techniques: PR: MUC 3311, MUC 4441, MUC 4611C, MUS 4635C. Audio and video film post production process with the video recording format. Audio and multi-media technologies will be used in the synchronization of SMPTE time code.

## MUS 4905 AS-MUSIC 1-4(1-4)

Directed Experience: PR: C.I. and Junior standing. Special topics of study and/or research as determined by student/faculty consultation. May be repeated for credit.

## MUS 4954 AS-MUSIC 0(1,0)

Recital Performance II: PR: Senior level applied music and C.I. Public recital of 45 minutes to demonstrate performance skills. Graded S/U. May repeat one time.

MUS 5526 AS-MUSIC 3(3,0)
Music and Technology: PR: Graduate Student. The emergence of technology in music including MIDI, CD ROM, and the high-tech music classroom.

MUT 1001 AS-MUSIC 3(3,0)
Fundamentals of Music I: Basic music theory and reading music at the keyboard.
MUT 1002 AS-MUSIC 3(3,0)
Fundamentals of Music II: PR: MUT 1001. Theory and sight singing skills.
MUT 1111 AS-MUSIC 2(2,1)
Music Theory IA: CR: MUT 1241. Writing, performance, analysis of and music of various stylistic periods.

MUT 1112 AS-MUSIC 2(2,1)
Music Theory IB: PR: MUT 1111, CR: MUT 1242. Continuation of MUT 1111.
MUT 1241 AS-MUSIC 1(0,2)
Ear Training and Sight Singing IA: Aural and visual/oral comprehension of elements of music rhythm, melody, harmony, form. Intended to be taken with MUT 1111.

MUT 1242 AS-MUSIC 1(0,2)
Ear Training and Sight Singing IB: PR: MUT 1241. Continuation of MUT 1241. Intended to be taken with MUT 1112.

MUT 2116 AS-MUSIC 2(2,1)
Music Theory IIA: PR: MUT 1112, CR: MUT 2246. Continuation of MUT 1111-1112; writing, performance, and analysis of music of various stylistic periods.

Music Theory IIB: PR: MUT 2116, CR: 2247. Continuation of MUT 2116.

## MUT 2246 AS-MUSIC 1(0,2)

Ear Training and Sight Singing IIA: PR: MUT 1242. Continuation of MUT 1242. Intended to be taken with MUT 2116.

## MUT 2247 AS-MUSIC 1(0,2)

Ear Training and Sight Singing IIB: PR: MUT 2246. Continuation of MUT 2246. Intended to be taken with MUT 2117.

MUT 2960 AS-MUSIC 0(1,0)
Ear-Training Proficiency Exam: PR: MUT 2247. Demonstration of basic skills in ear-training. Required of Music majors. May repeat one time. Graded S/U.

MUT 2961 AS-MUSIC 0(1,0)
Sight-Singing Proficiency Exam: PR: MUT 2247. Basic skills in sight-singing. Required of Music majors. May repeat one time. Graded S/U.

MUT 2962 AS-MUSIC 0(1,0)
Music Theory Proficiency Exam: PR: MUT 2117. Demonstration of basic skills in part-writing, visual analysis, counterpoint, instrumentation and form. Required for Music majors. May repeat one time. Graded S/U.

## MUT 3170 AS-MUSIC 2(1,1)

Jazz Theory I: PR: MUT 1111, MUT 1112, MUT 1241, MUT 1242. Examine traditional harmony, melody, and rhythm.

## MUT 3171 AS-MUSIC 2(1,1)

Jazz Theory II: PR: MUT 3170. Continuation of Jazz Theory I; examining jazz harmony, melody, and rhythm.

MUT 3401 AS-MUSIC 3(3,0)
Counterpoint: PR: MUT 2117. Discuss, analyze, and write counterpoint exercises. 18th, 19th, and 20th scores will be examined.

MUT 3571 AS-MUSIC 3(3,0)
20th Century Musical Analysis: PR: MUT 2116 and MUT 2117 or equivalent. Overview of 20th century music, including musical compositions, techniques of musical analysis, and styles.

MUT 3641 AS-MUSIC 2(0,2)
Jazz Improvisation I: PR: MUT 3171, Junior standing or C.I. Jazz improvisation with an emphasis
on listening, harmony, arranging, and jazz forms. Melodic and harmonic dictation at the keyboard.
MUT 3642 AS-MUSIC 2(0,2)
Jazz Improvization II: PR: MUT 3641 Junior standing or C.I. A continuation of Jass Improvization I.

MUT 4031 AS-MUSIC 1(1,0)
Review of Music Theory: PR: C.I. A comprehensive review of harmonic and analytic skills. May be repeated for credit.

MUT 4344 AS-MUSIC 1(1,0)
Seminar in Music Arranging: PR: MUT 3311. Scoring for choral and instrumental ensembles.
MUT 5381 AS-MUSIC 3(3,0)
Arranging and Composing Music: PR: Satisfactory placement tests in theory, sight-singing, and ear training. Arranging and composing music for instrumental and vocal ensembles. Some emphasis on compositional techniques of the 20th century.

## MVB 1211 AS-MUSIC $\mathbf{1 ( 0 , 1 )}$

Secondary Trumpet: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in trumpet. Intended for non-music majors. May be repeated for credit.

## MVB 1212 AS-MUSIC $\mathbf{1}(0,1)$

Secondary French Horn: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in French Horn. Intended for non-music majors. May be repeated for credit.

MVB 1213 AS-MUSIC $\mathbf{1}(0,1)$
Secondary Trombone: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in trombone. Intended for non-music majors. May be repeated for credit.

MVB 1214 AS-MUSIC $\mathbf{1}(0,1)$
Secondary Baritone: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in baritone. Intended for non-music majors. May be repeated for credit.

## MVB 1215 AS-MUSIC $\mathbf{1}(0,1)$

Secondary Tuba: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in tuba. Intended
for non-music majors. May be repeated for credit.
MVB 1411 AS-MUSIC 2(1,1)
Trumpet I: PR: Major in music or consent of chair; audition. May be repeated for credit.

French Horn I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVB 1413 AS-MUSIC 2(1,1)
Trombone I: PR: Major in music or consent of chair; audition. May be repeated for credit.

## MVB 1414 AS-MUSIC 2(1,1)

Baritone I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVB 1415 AS-MUSIC 2(1,1)
Tuba I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVB 2421 AS-MUSIC 2(1,1)
Trumpet II: PR: MVB 1411 and competence determined by faculty jury. Continuation of MVB 1411. May be repeated for credit.

MVB 2422 AS-MUSIC 2(1,1)
French Horn II: PR: MVB 1412 and competence determined by faculty jury. Continuation of MVB 1412. May be repeated for credit.

MVB 2423 AS-MUSIC 2(1,1)
Trombone II: PR: MVB 1413 and competence determined by faculty jury. Continuation of MVB 1413. May be repeated for credit.

MVB 2424 AS-MUSIC 2(1,1)
Baritone II: PR: MVB 1414 and competence determined by faculty jury. Continuation of MVB 1414. May be repeated for credit.

MVB 2425 AS-MUSIC 2(1,1)
Tuba II: PR: MVB 1415 and competence determined by faculty jury. Continuation of MVB 1415. May be repeated for credit.

MVB 3431 AS-MUSIC 2(1,1)
Trumpet III: PR: MVB 2421 and competence determined by faculty jury. Continuation of MVB 2421. May be repeated for credit.

MVB 3432 AS-MUSIC 2(1,1)
French Horn III: PR: MVB 2422 and competence determined by faculty jury. Continuation of MVB 2422. May be repeated for credit.

MVB 3433 AS-MUSIC 2(1,1)
Trombone III: PR: MVB 2423 and competence determined by faculty jury. Continuation of MVB 2423. May be repeated for credit.

Baritone III: PR: MVB 2424 and competence determined by faculty jury. Continuation of MVB 2424. May be repeated for credit.

MVB 3435 AS-MUSIC 2(1,1)
Tuba III: PR: MVB 2425 and competence determined by faculty jury. Continuation of MVB 2425. May be repeated for credit.

MVB 4441 AS-MUSIC 2(1,1)
Trumpet IV: PR: MVB 3431 and competence determined by faculty jury. Continuation of MVB 3431. May be repeated for credit.

MVB 4442 AS-MUSIC 2(1,1)
French Horn IV: PR: MVB 3432 and competence determined by faculty jury. Continuation of MVB 3432. May be repeated for credit.

MVB 4443 AS-MUSIC 2(1,1)
Trombone IV: PR: MVB 3433 and competence determined by faculty jury. Continuation of MVB 3433. May be repeated for credit.

MVB 4444 AS-MUSIC 2(1,1)
Baritone IV: PR: MVB 3434 and competence determined by faculty jury. Continuation of MVB 3434. May be repeated for credit.

MVB 4445 AS-MUSIC 2(1,1)
Tuba IV: PR: MVB 3435 and competence determined by faculty jury. Continuation of MVB 3435. May be repeated for credit.

MVB 4640 AS-MUSIC 2(2,0)
Brass Pedagogy: PR: Music major and C.I. Methods and materials for teaching instruments in a small group or studio setting.

MVB 5451 AS-MUSIC 2(1,0)
Trumpet V: PR: C.I. May be repeated for credit.
MVB 5452 AS-MUSIC 2(1,0)
French Horn V: PR: C.I. _May be repeated for credit.
MVB 5453 AS-MUSIC 2(1,0)
Trombone V: PR: C.I. May be repeated for credit.
MVB 5454 AS-MUSIC 2(1,0)

Baritone V: PR: C.I. May be repeated for credit.
MVB 5455 AS-MUSIC 2(1,0)
Tuba V: PR: C.I. May be repeated for credit.
MVK 1111 AS-MUSIC 1(0,2)
Class Piano I: Class instruction for beginning piano students. Not open to music majors whose major performing medium is piano.

## MVK 1211 AS-MUSIC 1(0,1)

Secondary Piano: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in piano. Intended for non-music majors. May be repeated for credit.

MVK 1213 AS-MUSIC 1(1,1)
Secondary Organ: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in organ. Intended for non-music majors. May be repeated for credit.

MVK 1411 AS-MUSIC 2(1,1)
Piano I: PR: Major in music or consent of chairperson; audition. May be repeated for credit.
MVK 1413 AS-MUSIC 2(1,1)
Organ I: PR: Major in music or consent of chairperson; audition. May be repeated for credit.
MVK 1800 AS-MUSIC 2(2,0)
Keyboard Class I: Keyboard training for non-Music students with no prior keyboard training.
MVK 1801 AS-MUSIC 2(2,0)
Keyboard Class II: PR: MVK 1800. Continuation of Keyboard class I
MVK 2121 AS-MUSIC 1(0,2)
Class Piano II: PR: MVK 1111 or C.I. Continuation of MVK 1111. Not open to music majors whose major performing medium is piano.

MVK 2421 AS-MUSIC 2(1,1)
Piano II: PR: MVK 1411 and competence determined by faculty jury. Continuation of MVK 1411. May be repeated for credit.

MVK 2423 AS-MUSIC 2(1,1)
Organ II: PR: MVK 1413 and competence determined by faculty jury. Continuation of MVK 1413. May be repeated for credit.

MVK 3131 AS-MUSIC 1(0,2)
Class Piano III: PR: MVK 1121 or C.I. Continuation of MVK 1121.

Piano III: PR: MVK 2421 and competence determined by faculty jury. Continuation of MVK 2421. May be repeated for credit.

## MVK 3433 AS-MUSIC 2(1,1)

Organ III: PR: MVK 2423 and competence determined by faculty jury. Continuation of MVK 2423. May be repeated for credit.

## MVK 4141 AS-MUSIC 1(0,2)

Class Piano IV: PR: MVK 1131 or C.I. Continuation of MVK 1131.
MVK 4441 AS-MUSIC 2(1,1)
Piano IV: PR: MVK 3431 and competence determined by faculty jury.
Continuation of MVK 3431. May be repeated for credit.
MVK 4443 AS-MUSIC 2(1,1)
Organ IV: PR: MVK 3433 and competence determined by faculty jury. Continuation of MVK 3433. May be repeated for credit.

## MVK 4640 AS-MUSIC 1(1,0)

Piano Pedagogy I: PR: C.I. Methods, materials for teaching individuals and classes of children and adults beginning to intermediate levels; demonstration and observation of procedures. May be repeated for credit.

## MVK 4641 AS-MUSIC 1(1,0)

Piano Pedagogy II: PR: C.I. Continuation of MVK 4640. Emphasis on intermediate through advanced levels. May be repeated for credit.

MVK 4960 AS-MUSIC 0(1,0)
Piano Proficiency Exam: PR: C.I. Demonstration of piano skills in basic repertoire, sight-reading, harmonization and transposition. Required of Music majors. May repeat one time. Graded S/U.

## MVK 5451 AS-MUSIC 2(1,0)

Piano V: PR: C.I. May be repeated for credit.
MVK 5453 AS-MUSIC 2(1,0)
Organ V: PR: C.I. May be repeated for credit.
MVO 1214 AS-MUSIC 1(0,1)
Secondary Recorder: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in recorder. Intended for non-music majors. May be repeated for credit.

Advanced Secondary Instruction: PR: Graduate standing and C.I. Advanced instructional techniques on a secondary instrument or in voice. May be repeated for credit.

MVP 1211 AS-MUSIC 1(0,1)
Secondary Percussion: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in percussion. Intended for non-music majors. May be repeated for credit.

## MVP 1411 AS-MUSIC 2(1,1)

Percussion I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVP 2421 AS-MUSIC 2(1,1)
Percussion II: PR: MVP 1411 and competence determined by faculty jury. Continuation of MVP 1411. May be repeated for credit.

MVP 3431 AS-MUSIC 2(1,1)
Percussion III: PR: MVP 2421 and competence determined by faculty jury.
Continuation of MVP 2421. May be repeated for credit.
MVP 3630 AS-MUSIC 2(2,0)
Percussion Pedagogy: PR: Music major, C.I. Teaching methods and materials for percussion students and groups.

MVP 4441 AS-MUSIC 2(1,1)
Percussion IV: PR: MVP 3431 and competence determined by faculty jury. Continuation of MVP 3431. May be repeated for credit.

MVP 5451 AS-MUSIC 2(1,0)
Percussion V: PR: C.I. May be repeated for credit.
MVS 1211 AS-MUSIC 1(0,1)
Secondary Violin: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in violin. Intended for non-music majors. May be repeated for credit.

MVS 1212 AS-MUSIC $\mathbf{1 ( 0 , 1 )}$
Secondary Viola: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in viola. Intended for non-music majors. May be repeated for credit.

MVS 1213 AS-MUSIC 1(0,1)
Secondary Cello: PR: Consent of Music Chair: CR: Performing ensemble. Advanced instruction in cello. Intended for non-music majors. May be repeated for credit.

Secondary Bass: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in bass. Intended for non-music majors. May be repeated for credit.

MVS 1216 AS-MUSIC 1(0,1)
Secondary Guitar: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in guitar. Intended for non-music majors. May be repeated for credit.

## MVS 1411 AS-MUSIC 2(1,1)

Violin I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVS 1412 AS-MUSIC 2(1,1)
Viola I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVS 1413 AS-MUSIC 2(1,1)
Cello I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVS 1414 AS-MUSIC 2(1,1)
Bass I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVS 1415 AS-MUSIC 2(1,1)
Harp I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVS 1416 AS-MUSIC 2(1,1)
Guitar I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVS 2421 AS-MUSIC 2(1,1)
Violin II: PR: MVS 1411 and competence determined by faculty jury. Continuation of MVS 1411. May be repeated for credit.

MVS 2422 AS-MUSIC 2(1,1)
Viola II: PR: MVS 1412 and competence determined by faculty jury. Continuation of MVS 1412. May be repeated for credit.

## MVS 2423 AS-MUSIC 2(1,1)

Cello II: PR: MVS 1413 and competence determined by faculty jury. Continuation of MVS 1413. May be repeated for credit.

MVS 2424 AS-MUSIC 2(1,1)
Bass II: PR: MVS 1414 and competence determined by faculty jury. Continuation of MVS 1414. May be repeated for credit.

Harp II: PR: MVS 1415 and competence determined by faculty jury. Continuation of MVS 1415. May be repeated for credit.

## MVS 2426 AS-MUSIC

Guitar II: PR: MVS 1416 and competence determined by faculty jury. Continuation of MVS 1416. May be repeated for credit.

## MVS 3431 AS-MUSIC $2(1,1)$

Violin III: PR: MVS 2421 and competence determined by faculty jury. Continuation of MVS 2421. May be repeated for credit.

## MVS 3432 AS-MUSIC 2(1,1)

Viola III: PR: MVS 2422 and competence determined by faculty jury. Continuation of MVS 2422. May be repeated for credit.

## MVS 3433 AS-MUSIC <br> 2(1,1)

Cello III: PR: MVS 2423 and competence determined by faculty jury. Continuation of MVS 2423. May be repeated for credit.

## MVS 3434 AS-MUSIC 2(1,1)

Bass III: PR: MVS 2424 and competence determined by faculty jury. Continuation of MVS 2424. May be repeated for credit.

MVS 3435 AS-MUSIC 2(1,1)
Harp III: PR: MVS 2425 and competence determined by faculty jury. Continuation of MVS 2425. May be repeated for credit.
MVS 3436 AS-MUSIC 2(1,1)

Guitar III: PR: MVS 2426 and competence determined by faculty jury. Continuation of MVS 2426. May be repeated for credit.

## MVS 4441 AS-MUSIC 2(1,1)

Violin IV: PR: MVS 3431 and competence determined by faculty jury. Continuation of MVS 3431. May be repeated for credit.

MVS 4442 AS-MUSIC 2(1,1)
Viola IV: PR: MVS 3432 and competence determined by faculty jury. Continuation of MVS 3432. May be repeated for credit.

## MVS 4443 AS-MUSIC 2(1,1)

Cello IV: PR: MVS 3433 and competence determined by faculty jury. Continuation of MVS 3433. May be repeated for credit.

Bass IV: PR: MVS 3434 and competence determined by faculty jury. Continuation of MVS 3434. May be repeated for credit.

MVS 4445 AS-MUSIC 2(1,1)
Harp IV: PR: MVS 3435 and competence determined by faculty jury. Continuation of MVS 3435. May be repeated for credit.

## MVS 4446 AS-MUSIC $2(1,1)$

Guitar IV: PR: MVS 3436 and competence determined by faculty jury. Continuation of MVS 3436. May be repeated for credit.

MVS 4640 AS-MUSIC 2(2,0)
String Pedagogy: PR: Music major and C.I. Methods and materials for teaching string instruments in a small group or studio setting.

MVS 5451 AS-MUSIC 2(1,0)
Violin V: PR: C.I. May be repeated for credit.
MVS 5452 AS-MUSIC 2(1,0)
Viola V: PR: C.I. May be repeated for credit.
MVS 5453 AS-MUSIC 2(1,0)
Cello V: PR: C.I. May be repeated for credit.
MVS 5454 AS-MUSIC 2(1,0)
Bass V: PR: C.I. May be repeated for credit.
MVS 5455 AS-MUSIC 2(1,0)
Harp V: PR: C.I. May be repeated for credit.
MVS 5456 AS-MUSIC 2(1,0)
Guitar V: PR: C.I. May be repeated for credit.
MVV 1111 AS-MUSIC $\mathbf{1}(0,1)$
Class Voice: Class instruction in beginning voice. May be repeated for credit.
MVV 1211 AS-MUSIC 1(0,1)
Secondary Voice: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in voice. Intended for non-music majors. May be repeated for credit.

Voice I: PR: Major in music or consent of chair; audition. May be repeated for credit.

## MVV 2322 AS-MUSIC 1(1,0)

Singing Broadway: PR: Concurrent enrollment in MVV 1411 or MVV 2421 or MVV 3431 or MVV 4441. Hearing and singing the American music called "Broadway." Students learn singing techniques utilizing principles of the Italian "Bel Canto" school. May be repeated for credit.

MVV 2421 AS-MUSIC 2(1,1)
Voice II: PR: MVV 1411 and compe-tence determined by faculty jury. Contin-uation of MVV 1411. Major in music or consent of chair; audition. Private and class lessons. May be repeated for credit.

## MVV 3431 AS-MUSIC 2(1,1)

Voice III: PR: MVV 2421 and competence determined by faculty jury. Continuation of MVV 2421. May be repeated for credit.

## MVV 4441 AS-MUSIC 2(1,1)

Voice IV: PR: MVV 3431 and competence determined by faculty jury. Continuation of MVV 3431. May be repeated for credit.

MVV 4640 AS-MUSIC $\mathbf{1}(1,0)$
Voice Pedagogy I: PR: C.I. Methods, materials for vocalists; teachers, conduc-tors; voice production; diagnosis of problems and correction; demonstration and observation of teaching; beginning to intermediate levels. May be repeated for credit.

## MVV 4641 AS-MUSIC 1(1,0)

Voice Pedagogy II: PR: C.I. Continua-tion of MVV 4640. Intermediate to ad-vanced levels. May be repeated for credit.

## MVV 5451 AS-MUSIC 2(1,0)

Voice V: PR: C.I. May be repeated for credit.

## MVW 1211 AS-MUSIC 1(0,1)

Secondary Flute: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in flute. Intended for non-music majors. May be repeated for credit.

## MVW 1212 AS-MUSIC 1(0,1)

Secondary Oboe: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in oboe. Intended for non-music majors. May be repeated for credit.

## MVW 1213 AS-MUSIC 1(0,1)

Secondary Clarinet: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in clarinet. Intended for non-music majors. May be repeated for credit.

Secondary Bassoon: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in bassoon. Intended for non-music majors. May be repeated for credit.

## MVW 1215 AS-MUSIC 1(0,1)

Secondary Saxophone: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in saxophone. Intended for non-music majors. May be repeated for credit.

## MVW 1411 AS-MUSIC $2(1,1)$

Flute I: PR: Major in music or consent of chair; audition. May be repeated for credit.

## MVW 1412 AS-MUSIC 2(1,1)

Oboe I: PR: Major in music or consent of chair; audition. May be repeated for credit.

## MVW 1413 AS-MUSIC 2(1,1)

Clarinet I: PR: Major in music or consent of chair; audition. May be repeated for credit.

## MVW 1414 AS-MUSIC 2(1,1)

Bassoon I: PR: Major in music or consent of chair; audition. May be repeated for credit.

## MVW 1415 AS-MUSIC 2(1,1)

Saxophone I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVW 2421 AS-MUSIC 2(1,1)
Flute II: PR: MVW 1411 and competence determined by faculty jury. Continuation of MVW 1411.
May be repeated for credit.

## MVW 2422 AS-MUSIC 2(1,1)

Oboe II: PR: MVW 1412 and competence determined by faculty jury. Continuation of MVW 1412. May be repeated for credit.

## MVW 2423 AS-MUSIC 2(1,1)

Clarinet II: PR: MVW 1413 and competence determined by faculty jury. Continuation of MVW 1413. May be repeated for credit.

## MVW 2424 AS-MUSIC 2(1,1)

Bassoon II: PR: MVW 1414 and competence determined by faculty jury. Continuation of MVW 1414. May be repeated for credit.

## MVW 2425 AS-MUSIC 2(1,1)

Saxophone II: PR: MVW 1415 and competence determined by faculty jury. Continuation of MVW 1415. May be repeated for credit.

Flute III: PR: MVW 2421 and competence determined by faculty jury. Continuation of MVW 2421. May be repeated for credit.

## MVW 3432 AS-MUSIC 2(1,1)

Oboe III: PR: MVW 2422 and competence determined by faculty jury. Continuation of MVW 2422. May be repeated for credit.

## MVW 3433 AS-MUSIC 2(1,1)

Clarinet III: PR: MVW 2423 and competence determined by faculty jury. Continuation of MVW 2423. May be repeated for credit.

## MVW 3434 AS-MUSIC 2(1,1)

Bassoon III: PR: MVW 2424 and competence determined by faculty jury. Continuation of MVW 2424. May be repeated for credit.

## MVW 3435 AS-MUSIC 2(1,1)

Saxophone III: PR: MVW 2425 and competence determined by faculty jury. Continuation of MVW 2425 . May be repeated for credit.

MVW 3630 AS-MUSIC 2(2,0)
Woodwind Pedagogy: PR: C.I. Methods, materials for teaching individuals and woodwind ensembles.

## MVW 4441 AS-MUSIC 2(1,1)

Flute IV: PR: MVW 3431 and competence determined by faculty jury. Continuation of MVW 3431. May be repeated for credit.

## MVW 4442 AS-MUSIC 2(1,1)

Oboe IV: PR: MVW 3432 and competence determined by faculty jury. Continuation of MVW 3432. May be repeated for credit.

## MVW 4443 AS-MUSIC 2(1,1)

Clarinet IV: PR: MVW 3433 and competence determined by faculty jury. Continuation of MVW 3433. May be repeated for credit.

## MVW 4444 AS-MUSIC 2(1,1)

Bassoon IV: PR: MVW 3434 and competence determined by faculty jury. Continuation of MVW 3434. May be repeated for credit.

MVW 4445 AS-MUSIC 2(1,1)
Saxophone IV: PR: MVW 3435 and competence determined by faculty jury. Continuation of MVW
3435. May be repeated for credit.

## MVW 5451 AS-MUSIC 2(1,0)

Flute V: PR: C.I. May be repeated for credit.
MVW 5452 AS-MUSIC 2(1,0)
Oboe V: PR: C.I. May be repeated for credit.
MVW 5453 AS-MUSIC 2(1,0)
Clarinet V: PR: C.I. May be repeated for credit.
MVW 5454 AS-MUSIC 2(1,0)
Bassoon V: PR: C.I. May be repeated for credit.
MVW 5455 AS-MUSIC 2(1,0)
Saxophone V: PR: C.I. May be repeated for credit.
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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

## NGR 5003 HPA-NURS 3(3,0)

Advanced Health Assessment, Health Promotion, \& Diagnostic Reasoning: PR: Baccalaureate Degree in Nursing; Basic Hlth Assess course. Co: Adv Hlth Assess Clinical. Advanced health assessment, health promotion, and diagnostic reasoning for individuals over the lifespan \& populations.

NGR 5004L HPA-NURS 2(0,2)
Advanced Health Assessment, Health Promotion, \& Diagnostic Reasoning Clinical: PR: Pre-Baccalaureate in Nurs-ing Basic Health Assessment course. CR: NGR 5003C. Application of skills for ad-vanced health assessment, health promo-tion, and diagnostic reasoning for individ-als over the lifespan and populations.

NGR 5090 HPA-NURS 3(3,0)
Urgent Care for the Advanced Practice Nurse: PR: NGR 6240C or C.I. Advanc-ed practice evaluation and management of clients in urgent care settings.

NGR 5141 HPA-NURS 3(3,0)
Pathophysiological Bases for Advanced Nursing Practice: PR: Baccalaureate Degree in Nursing. Critical examination of the physiological and pathophysio-logical mechanisms affecting individuals.

Psycho-Social Factors and Health Care Outcomes in the Elderly: PR: Post-baccalaureate or graduate status or C.I. Interdisciplinary perspective to examine the relationship between client characteristics, client health care provider interactions and health care outcomes in the elderly.

NGR 5635 HPA-NURS 3(3,0)
Transdisciplinary and Community-Based Strategies of Health Profession-als: PR: Graduate standing or C.I. A study of healthcare issues and strategies encountered by speech-language patholo-gists and nurse practitioners when pro-moting transdisciplinary and collaborative interactions.

## NGR 5714 HPA-NURS 3(3,0)

Clinical Teaching Strategies for Health Professional Education: PR: EDG 6236 or Teaching Strategies for Health Profes-sionals, or C.I. In depth study of the dev-elopment, implementation, and evaluation of clinical education programs for health profession students. May be repeated for credit.

## NGR 5715 HPA-NURS 3(3,0)

Instructional Technology Resources for Health Professional Education: PR: EDG 6236, Teaching Strategies for Health Professionals, or C.I. Analysis of effective teaching learning strategies with emphasis on developing techniques for teaching through technology resources.

NGR 5720 HPA-NURS 3(3,0)
Organizational Dynamics: PR: Baccalaureate Degree in Nursing. Analysis of theories and models of health care organizational systems. Emphasis on nursing administration roles.

## NGR 5721 HPA-NURS 3(3,0)

Dimensions of Nursing Administration: PR: Baccalaureate Degree in Nursing. Basic principles and organization theory for nursing administration.

NGR 5744 HPA-NURS 1(1,0)
Roles and Issues in Advanced Practice Nursing I: PR: Admission to the MSN program or C.I. Examine societal responses to health and illness, health care systems and policies and the role of advanced practice nurses.

## NGR 5745 HPA-NURS 1(1,0)

Roles and Issues in Advanced Practice Nursing III: PR: NGR 5746 (Roles and Issues in Advanced Practice Nursing II). Examine professional obligations of advanced practice nurses. Opportunity to develop skills for taking certification exam.

NGR 5746 HPA-NURS 1(1,0)
Roles and Issues in Advanced Practice Nursing II: PR: NGR 5744. Examine cultural, legal, ethical and political issues of advanced practice nurses.

NGR 5791 HPA-NURS 3(3,0)
Teaching Strategies for Health Professionals: PR: Bachelors in nursing or consent of instructor.

Analysis of internal and external controls on curriculum development for health professionals; application of selected teaching learning theories to classroom and clinical practice.

## NGR 5800 HPA-NURS 4(4,0)

Nursing Theory/Research I: PR: Baccalaureate degree in Nursing or NUR 4836, undergraduate statistics course or C.I. Explores and analyzes the conceptual and theoretical bases of nursing, examines and critiques research designs and meth-ods commonly used in nursing research.

## NGR 5801 HPA-NURS 4(4,0)

Nursing Research II/Statistics: PR: BSN; NGR 5800; Undergraduate Statistics or C.I. Measurement strategies in nursing research, data planning and collection techniques, statistical data analysis and interpretation of results, research proposal development, outcomes research and statistical software.

## NGR 5871 HPA-NURS 3(3,0)

Health Care Informatics: PR: Baccalaureate in health related field or C.I. Use of information systems, clinical data management, communication strategies, and decision-making models.

NGR 5880 HPA-NURS 3(3,0)
Professional Ethics: PR: C.I. Clinical cases and other professional ethical issues related to codes of conduct and research; application of ethical principles. May be repeated for credit.

NUR 1015 HPA-NURS 3(3,0)
Nursing as a Profession: Professional nursing roles in contemporary society covering a range of topics using discourse methodology that forms a foundation for nursing and health care.

NUR 3026L HPA-NURS 1(0,2)
Therapeutic Interventions for Health Professionals: PR: Admission to Nursing Program. Theoretical rationale and psychomotor development for therapeutic interventions in nursing practice. Graded S/U.

## NUR 3065 HPA-NURS 3(2,1)

Health Assessment: PR: PCB 3703C, ZOO 3733C or Florida RN License. Concepts of health assessment of clients.

## NUR 3165 HPA-NURS 3(3,0)

Critical Inquiry: PR: STA 2014C or 2023; NUR 3809 and RN status or NUR 3065. A study of approaches to proble-matic situations in nursing. Selected experiences in investigating, analyzing, and interpreting nursing research.

## NUR 3198 HPA-NURS 5(5,0)

Pathophysiology and Pharmacology for Nursing Practice: PR: Admission to the School of Nursing. Concepts and nursing care applications of the pathophysiological basis of illness, and principles of pharmacology.

Promoting Physical and Mental Health in the Community: PR: Completion of all Jr. level first semester courses or C.I. Biopsychosocial nursing interventions in physical and mental health problems with emphasis on family-centered care in the community.

NUR 3235L HPA-NURS 4(0,4)
Clinical Practice in Promoting Physical and Mental Health in the Community: PR: Completion fo all Jr. level first sem-ester courses or C.I. Clinical application of biopsychosocial nursing interventions in physical \& mental health problems with emphasis on family-centered care in the community. Graded S/U.

NUR 3616 HPA-NURS 3(3,0)
Promoting Healthy Families Across the Lifespan: PR: Admission to the School of Nursing. Theoretical foundations related to primary care nursing practice with healthy families across the lifespan, including common health concerns related to childbearing, childrearing, adulthood, and aging.

## NUR 3616L HPA-NURS 3(0,3)

Clinical Practice in Promoting Healthy Families: PR: Admission to the School of Nursing. Primary care clinical nursing practice in community settings with healthy families across the lifespan, including common health concerns related to childbearing, childrearing, adulthood and aging. Graded S/U.

## NUR 3617 HPA-NURS 3(3,0)

Promoting Healthy Communities: PR: Admission to the School of Nursing. Exploration of community-oriented nursing practice, including epidemio-logical, community health, nursing, economic, and health care system perspectives. May be repeated for credit.

## NUR 3795 HPA-NURS 3(3,0)

Principles of Oncology Nursing: PR: C.I. or Junior standing. Basic principles and concepts in oncology. Focus on cancer as it affects individuals and families. Emphasis on cancer treatment, symptoms management and psychosocial response.

## NUR 3809 HPA-NURS 3(3,0)

Transitional Concepts in Nursing I : PR: Florida RN status. Exploration of issues and theories related to professional nursing practice to facilitate transition of RN to baccalaureate level of nursing practice.

NUR 3825 HPA-NURS 1(1,0)
The Role of the Professional Nurse: PR: Admission to the school of Nursing. Examination of the role and function of the professional nurse, including profes-sional standards, legal and practice issues.

Bioethical and Legal Issues in Health Care -Honors: PR: Honors Program. Includes questions concerning human values, legal and ethical questions arising in health care delivery policy issues and professional practice among licensed health care professionals

## NUR 3936 HPA-NURS 3(2,2)

International Perspectives of Nursing and Health Care: PR: Enrolled in School of Nursing or C.I. Comparative analysis of professional nursing practice and health care system in the United States and selected countries. May be repeated for credit

## NUR 4047 HPA-NURS 3(3,0)

Health Care of Special Populations: Homeless: PR: Completion of junior level nursing courses or equivalent or C.I. Emphasis on socioeconomic, political, nursing, medical, and mental health practice and research related to care of the homeless.

## NUR 4084 HPA-NURS 3(3,0)

Transitional Concepts in Nursing II: PR: NUR 3809, NUR 3065, NUR 3165. Enhancement of knowledge from basic Registered Nurse programs and continuation of study from NUR 3809.

## NUR 4196 HPA-NURS 3(3,0)

Crisis Intervention: PR: Completion of PSY 2013, SYG 2000 or ANT 2000. Crisis theory and techniques; recognition and intervention in crisis events. Applicable to all areas of nursing and all helping professions.

## NUR 4286 HPA-NURS 3(3,0)

Gerontologic Nursing: PR: NUR 4286 or RN status or C.I. Theories and principles related to the promotion, maintenance, and restoration of health in older adults in various settings.

NUR 4525 HPA-NURS 2(2,0)
Nursing Intervention in Mental Illness: PR: Completion of all Jr. level Fall and Spring courses or C.I. Nursing application of theory, treatment modalities, and skills specific to clients with a primary diagnosis of mental illness.

## NUR 4525L HPA-NURS 1(0,1)

Clinical Practice with Mentally Ill Clients: PR: Completion of all Jr. level Fall and Spring courses or C.I. Clinical practice in acute healthcare settings serving clients with a primary diagnosis of mental illness. Graded S/U.

## NUR 4635C HPA-NURS 6(3,3)

Scientific Theories of Nursing VI: PR: NUR 4084 and admission to the Nursing Program. Theories and principles of public health nursing. Clinical applications in selected settings.

## NUR 4636 HPA-NURS 3(3,0)

Community as the Continuum of Care: PR: Completion of all Jr. level and Sr. Fall courses or C.I.

Theories and principles of community health nursing and application to clinical practice within a community oriented framework for nursing care.

## NUR 4636L HPA-NURS 2(0,2)

Clinical for Community as the Continuum of Care: PR: Completion of all Jr. level and Sr. level Fall courses or C.I. Clinical application of theories and principles of community health nursing and application to clinical practice within a community oriented framework for nursing care. Graded S/U.

## NUR 4745 HPA-NURS 4(4,0)

Nursing Care of Clients with Acute and Life-threatening Illness across Lifespan: PR: Completion of all Jr. level Fall and Spring courses or C.I. Nursing care of individuals and families experiencing acute, unstable, or life-threatening health problems.

## NUR 4745L HPA-NURS 4(0,4)

Clinical Practice in Caring for Clients with Acute Illness: PR: Completion of all Jr. level Fall and Spring courses or C.I. Clinical practice in acute health care settings with clients experiencing acute, unstable, surgical, or life threatening health conditions.

## NUR 4827 HPA-NURS 3(3,0)

Leadership and Management Principles: PR: NUR 3809 or NUR 4635, RN Status or C.I. Scientific theories and principles of leadership and management needed to function in leadership, management, and teaching roles in professional nursing. Application of decision making process.

## NUR 4828 HPA-NURS 2(0,2)

Professional Issues and Development: PR: NUR 4635C, RN status, or C.I. CR NUR 4945L, NUR 4827. Analysis of current issues relating to health care delivery and the baccalaureate graduate entering professional nursing practice

NUR 4835 HPA-NURS 2(2,0)
Role Transition: PR: Completion of all Jr. level and Sr. level Fall courses or C.I. Professional development and role transition of the baccalaureate graduate entering professional nursing practice.

NUR 4836 HPA-NURS 3(1,2)
Professional Development Seminar in Nursing: PR: Acceptance to RN-MSN program track; Current Florida RN license; CR: NUR 3809. Exploration of the role of the professional nurse

NUR 4837 HPA-NURS 3(3,0)
Health Care Issues, Policy, and Economics: PR: Completion of all Jr. level and Sr. level Fall courses or C.I. Study of selected health care policy issues relevant to the financing, organization, and delivery of nursing services to populations in the community

NUR 4838L HPA-NURS 2(0,2)
Directed Practicum in Nursing Administration: CR: NGR 5720. Clinical practice in an area of
nursing administration.
NUR 4880 HPA-NURS 3(3,0)
Introduction to Critical Care Nursing: PR: RN status or C.I. Theories and principles of comprehensive nursing care of individuals and families in critical care settings.

NUR 4905C HPA-NURS Variable
Nursing Independent Study: PR: NUR 4756C. An opportunity for in-depth study in an area of special interest to the student.

NUR 4934 HPA-NURS 3(3,0)
Holistic Nursing: Explore lived exper-ience of health-wellness, illness-disease focusing on mind-body-spirit, transper-sonal healing and complementary inter-ventions to maximize nursing care outcomes.

NUR 4935 HPA-NURS 3(3,0)
Women's Health Issues: PR: ENC 1102, Junior standing, or C.I. Factors and conditions impacting the health of women. May be repeated for credit.

NUR 4941 HPA-NURS 3(0,9)
Selected Nursing Practicum: PR: NUR 4756C and 4758C. An opportunity for an in-depth clinical study in an area of special interest to the student.

NUR 4945L HPA-NURS 4(0,4)
Directed Nursing Practice: PR: NUR 4635C, RN status, or C.I. CR: NUR 4827, NUR 4828. In depth study of one area of clinical nursing practice

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## PAD 3003 HPA-PUB 3(3,0)

Public Administration in American Society: PR: POS 2041. An examination of the basic environment, culture, and organization of public administration in the United States.

## PAD 4034 HPA-PUB 3(3,0)

The Administration of Public Policy: PR: ECO 2023. Problems of values, interests, and objectives and their impact on the administration of public programs, stressing the interplay between social values, policies and administration.

PAD 4104 HPA-PUB 3(3,0)
Administrative Theory: A review of the behavioral aspects of the administrative process, its impact on organizational goal achievement and on supervisory strate-gies. Some social and structural patholo-gies affecting administrative practice.

PAD 4110 HPA-PUB 3(3,0)
Intergovernmental Administration: Various approaches to studying and explaining the American Intergovern-mental system. Emphasis on interorgani-zational activities, i.e., negotiation, cooperation, and coordination within the legal setting.

PAD 4131 HPA-PUB 3(3,0)
Public Sector Project Management: Various approaches to managing projects, including using
scheduling techniques such as GANTT, CPM, and PERT, as well as team building, facilitating, and leadership skills.

## PAD 4144 HPA-PUB 3(3,0)

Non-Profit Organizations: PR: PAD 3003 or C.I. The operations of non profit organizations, including working with board of directors, volunteer services, fund-raising and grantsmanship, financial management and marketing.

PAD 4147 HPA-PUB 3(3,0)
Resource Development in the Nonprofit Sector: PR: Junior status or C.I. Examin-ation of the development and manage-ment of human resources and financial resource development in nonprofit organizations is discussed.

## PAD 4148 HPA-PUB 3(3,0)

Volunteer Management: PR: Junior status or C.I. Examination of recruitment, selection, training and management of volunteers in nonprofit organizations and the application of management theory.

PAD 4153 HPA-PUB 3(3,0)
Planning and Improvement for Pub Org: Prepare future leaders for the changing paradigms of the public sector by providing education in a variety of quality related areas.

## PAD 4204 HPA-PUB 3(3,0)

Fiscal Management: PR: C.I. Analysis of methods of securing public funds, the process of budget making, and techniques of management used in managing public funds.

## PAD 4223 HPA-PUB 3(3,0)

Public Budgeting: Skills and Techni-ques: PR: PAD 4204 or C.I. Analytical skills and administrative techniques employed by public budget analysis, focusing on the process of generating and using information.

## PAD 4253 HPA-PUB 3(3,0)

Community \& Economic Development: PR: PAD 3003 or C.I. This course will examine local and regional economic development strategies, with an emphasis on effective policy setting and planning.

## PAD 4327 HPA-PUB 3(3,0)

Program Evaluation for Public and Non-Profit Organizations: PR: PAD 3003 or C.I. To develop an understanding of program evaluation and to apply the process by developing a program evaluation for a program.

PAD 4351 HPA-PUB 3(3,0)
Issues in Environmental Program Management: The study of environmental policy making processes, programs, and problems through lectures, field study, and research projects.

Managing Public Emergencies: PR: PAD 3003 or C.I. After a public emergency, a variety of services must be provided to the victims. This course reviews and analyzes coordination and management of these services.

## PAD 4393 HPA-PUB 3(3,0)

Emergency Management \& Disaster Planning: PR: PAD 3003 or C.I. Emergency Management and Disaster Planning on events most likely to affect Florida including reviewing the four phases of Planning, mitigation, response, and preparedness.

PAD 4414 HPA-PUB 3(3,0)
Public Personnel Administration: The history, operating components, structural characteristics, and increasing impact of laws and related sanctions on personnel practices of public agencies.

## PAD 4446 HPA-PUB 3(3,0)

Multiculturalism in Public Administration: PR: PAD 3003 or C.I. This course is designed to help public managers examine public and personal attitudes and values, ethical dilemmas, and social consequences related to issues of diversity.

## PAD 4461 HPA-PUB 3(3,0)

Reengineering Government: PR: PAD 3003. Acquaint undergraduate students with the latest thinking on improving the effectiveness and efficiency of public organizations via reengineering.

## PAD 4616 HPA-PUB 3(3,0)

Privatization: PR: PAD 3003 or C.I. Analysis of the process of privatizing existing governmental services., including: privatization decision, creation of RFP or ITB, contract award and contract management.

PAD 4720 HPA-PUB 3(3,0)
Survey Research in Public Adminis-tration: Introduction to the concepts, design, methodology, computer applica-tions, and data analysis in applied research in the public sector.

## PAD 4803 HPA-PUB 3(3,0)

Issues in Urban Administration: To provide students with an understanding of public policy and administrative responses to socioeconomic problems within the urban context.

## PAD 4941 HPA-PUB 3-6(0,6)

Public Administration Internship: PR: C.I. Internship in municipal, county, state, or federal government, including assignments in such fields as personnel, planning, budget, and fiscal, procurement, and public safety.

PAD 5041 HPA-PUB 3(3,0)
Ethics and Values in Public Adminis-tration: Examination of ethics in the public sector. Public concerns, past patterns, and individual/social aspects of ethical behavior are explored.

Nonprofit Organizations: PR: Admission to certificate program or C.I. Overview of nonprofit management, including history, governance structures, criteria used to establish nonprofit status, range of organizations, and application of management theory.

## PAD 5145 HPA-PUB 3(3,0)

Volunteerism in Nonprofit Management: PR: Admission to certificate program or C.I. Human resource development in nonprofit organizations, including board selection, development and leadership, volunteer recruitment, training, retention and theories of motivation, leadership, ethical issues

## PAD 5208 HPA-PUB 3(3,0)

Nonprofit Financial Management: PR: Admission to certificate program or C.I. Financial management in nonprofit organizations, including nonprofit funding, budgeting policies and procedures, orientation of department managers to budgeting, estimating income and expenses, and ethical implications of budgeting and finance.

## PAD 5336 HPA-PUB 3(3,0)

Introduction to Urban Planning: Issues of urbanization, regional development, land use and comprehensive planning, environmental planning, and social planning.

## PAD 5337 HPA-PUB 3(3,0)

Urban Design: Planning techniques such as planned unit developments, capital im-provements planning, and growth man-agement, and planning methods, includ-ing needs assessment and graphic design.

## PAD 5338 HPA-PUB 3(3,0)

Land Use and Planning Law: Review of national and local aspects of the legal underpinnings of urban planning aspects such as zoning, growth management, and environmental regulation.

## PAD 5356 HPA-PUB 3(3,0)

Managing Community and Economic Development: PR: graduate standing or C.I. Overview of economic development activities focusing on policy and managerial issues at the local level.

## PAD 5425 HPA-PUB 3(3,0)

Dispute Resolution in the Public Sector: An examination of the skills needed to resolve disputes in the public sector through facilitation, mediation, and other alternative methods.

## PAD 5427 HPA-PUB 3(3,0)

Labor Relations in the Public Sector: Current trends and developments in employment relations in the public sector, especially employee organization, negotiations, and the collective bargaining process.

Local Government Operations: Operational Functions of municipal and county governments and the role of the chief executive officer.

## PAD 5807 HPA-PUB 3(3,0)

Administrative Practice in the Public Sector: The application of various theoretical concepts to the "real world" of public administration. Policy formulation and execution are examined through the case study mode.

## PAD 5850 HPA-PUB 3(3,0)

Grant and Contract Management: PR: PAD 3003 or C.I. Study of government or public nonprofit agency grant and contract administration and management responding to funding assistance solicitations and grant and contract preparation, evaluation, and presentation.

PAF 2102 HPA-HPA 2(2,0)
Public Affairs Careers: Introduction and examination of public affairs programs of study and career opportunities that will prepare students for future careers. Graded S/U.

## PCB 2420 HPA-M\&M 3(3,0)

Principles of Biotechnology: Principles, applications, laws, ethics and impact on society of biotechnology in agriculture, medicine, forestry, environment, computers/industrial/chemical engineering and business management.

PCB 3023 AS-BIOL 3(3,0)
Molecular Cell Biology: PR: BSC 2010C and CHM 2210, or C.I. Molecular structure and function of eukaryotic organelles. Transcription: RNA processing translation and post translation targeting and modification of gene products.

PCB 3034 AS-BIOL 3(3,0)
Principles of Ecology: PR: BSC 2010C and BSC 2011C, or C.I. Elements of ecosystems, biogeochemical cycling, environmental factor interactions, population dynamics, and community development.

PCB 3034L AS-BIOL $\mathbf{1}(0,3)$
Principles of Ecology Laboratory: CR: PCB 3034 or C.I. Field and laboratory investigations of natural ecosystems, with emphasis on current methodology in ecology.

PCB 3063 AS-BIOL 3(3,0)
Genetics: PR: BSC 2010C, and CHM 2046, or C.I. Basic principles of heredity as applied to prokaryotes and eukaryotes.

PCB 3063L AS-BIOL $\mathbf{1}(0,3)$
Genetics Laboratory: CR: PCB 3063 or C.I. Introduction to laboratory techniques of genetics.

Immunology: PR: BSC 2010C. Basic principles of immune reactions, antigen antibody interactions, cell mediated immunity, tumor immunology, and immuno therapy.

## PCB 3233L HPA-M\&M $\mathbf{1}(0,3)$

Immunology Laboratory: CR: PCB 3233. Introduction to laboratory techniques in immunology.
PCB 3301C AS-BIOL 4(3,4)
Aquatic Biology: PR: BSC 2010C and BSC 2011C, or C.I. Plant and animal components of freshwater environments.

PCB 3442 AS-BIOL 3(3,0)
Florida Aquatic Ecology: PR: BSC 2010C and BSC 2011C, or C.I. An introduction to aquatic ecology of Florida with emphasis on ponds, lakes, streams, and rivers.

PCB 3523 HPA-M\&M 3(3,0)
Molecular Biology I: PR: CHM 2211 and MCB 3020C or C.I. The general principles governing the structure and function of both procaryotic and eucaryotic genes.

PCB 3703C HPA-M\&M 4(3,3)
Human Physiology: PR: BSC 2010C, CHM 2046 or equivalent. The physiology and interrelationships of organ systems of the human body.

## PCB 4234 HPA-M\&M 3(3,0)

Cellular Immunology: PR: PCB 3233. An undergraduate course covering spec-ialized topics in cellular immunology.

PCB 4302C AS-BIOL 4(3,4)
Physiochemical Limnology: PR: BSC 2010C and BSC 2011C, or C.I. Limnology and methods for freshwater ecology, with respect to physical, and chemical parameters.

PCB 4303C AS-BIOL 4(3,4)
Biological Limnology: PR: BSC 2010C and BSC 2011C, or C.I. Biological communities in freshwater lakes and streams.

PCB 4523 HPA-M\&M 3(3,0)
Experimental Molecular Biology: PR: PCB 3523 and PCB 4524 or C.I. Facilitation of experimental data that leads to the development and understanding of the underlying principles of molecular biology.
PCB 4524 HPA-M\&M 3(3,0)
Molecular Biology II: PR: PCB 3523. The processes regulating gene function in procaryotes and
eucaryotes; specialized genetic aspects underlying multi-cellular existence, DNA evolution.

## PCB 4524H HPA-M\&M 3(3,0)

Molecular Biology II-Honors: PR: PCB 3523. Same as PCB 4525 with honors level content PCB 4683C AS-BIOL 5(4,2)

Population Biology and Evolution: PR: PCB 3034 and PCB 3063 or equivalents. Demographic and genetic structure of populations and their relationship to speciation, adaptation, and macroevolutionary processes in plants and animals.

PCB 4723 AS-BIOL $\mathbf{4}(4,0)$
Animal Physiology: PR: PCB 3023 or C.I. Functions of body processes occurring in animals, with emphasis on vertebrate physiology.

## PCB 4805 HPA-M\&M 3(3,0)

Endocrinology: PR: PCB 3703C or equivalent; CHM 3211. Mechanisms of action of hormones; interrelationship between the nervous and endocrine systems.

## PCB 5045C AS-BIOL 4(3,2)

Conservation Biology: PR: PCB 3034 and PCB 3063. Scientific basis of conversation; conservation of ecosystems, populations, exploited species, and endangered species. Weekend field trips are required.

PCB 5107C AS-BIOL 4(3,2)
Advanced Cell Biology: PR: PCB 3063 and PCB 3023 or CI. Review of selected topics in cell biology with emphasis on current research in areas of membrane structure, protein targeting, cytoskeleton, signaling and cell cycle.

## PCB 5238 HPA-M\&M 3(3,0)

Immunopathology: PR: PCB 3233. In-depth overview of diseases due to deficiencies or over-reactivity of the immune system.

## PCB 5239 HPA-M\&M 3(3,0)

Tumor Biology: PR: PCB 4524. A course designed to provide an introduction and broad overview of the current knowledge and research in the field of cancer biology.

PCB 5256C AS-BIOL 4(3,2)
Advanced Developmental Biology: PR: PCB 3063 and ZOO 4603 or equivalent. Lecture and literature review of emerging areas in plant and animal developmental biology

## PCB 5275 HPA-M\&M 3(3,0)

Signal Transduction Mechanics: PR: PCB 3523 and PCB 4524. A course emphasizing various signal transduction cascades used in mammalian cells to control growth and differentiation.

Discussion of original research papers will occur.
PCB 5326C AS-BIOL 5(3,2)
Ecosystems of Florida: PR: PCB 3034, PCB 3034L or equivalent. Ecosystems of Florida will be discussed to include geography, geology, climate, energetics, nutrient cycling, community structure and conservation.

PCB 5328C AS-BIOL 4(2,4)
Landscape Ecology: PR: PCB 3034, STA 2023 or C.I. Influence of spatial heterogenicity on ecological processes. Emphasizes quantitative methods (e.g., GIS, remote sensing and modeling) to characterize landscape patterns and dynamics.

PCB 5435C AS-BIOL 4(2,6)
Marine Ecology of Florida: PR: BSC 4312 or graduate status. Survey of experimental methods used in the study of marine communities in central and southern Florida, combining field manipulation and readings from primary literature.

PCB 5485 AS-BIOL 3(3,0)
Models in Ecology: PR: PCB 3034, MAC 2311 (or equivalent). A survey of how simulation models are applied to ecological questions of both a theoretical and managerial nature.

PCB 5556C AS-BIOL 4(3,2)
Conservation Genetics: PR: PCB 3063 or C.I. Applications of genetic models to the understanding and conservation of animal and plant populations.

PCB 5665C AS-BIOL 4(3,2)
Human Genetics: PR: PCB 3063, graduate standing or C.I. Human Genetics provides a theoretical framework for understanding the biology of the human species.

PCO 4203 AS-PSYCH 4(3,2)
Interviewing and Counseling: PR: PSY 2013, PPE 3003, CLP 3143 and C.I. A review of various interviewing and counseling theories and techniques used in Mental Health settings as well as practical experience in interviewing and counseling procedures.

PEL 2011 ED-HSW 2(2,1)
Basic Volleyball and Softball: The analysis of offensive and defensive alignment, techniques, and strategies.

PEL 2111 ED-HSW 2(1,1)
Bowling: A study of the fundamentals of bowling techniques and the development of skills based on those fundamentals.

Beginning Golf: Performance and application of basic skills, rules, and etiquette. Physiological and social values accruing from this lifetime sport.

## PEL 2122 ED-HSW 2(2,1)

Intermediate Golf: PR: PEL 2121 or equivalent competency. A study of performance and application of intermediate skills, rules, and etiquette. Physiological and social values accruing from this lifetime sport.

## PEL 2341 ED-HSW 2(2,1)

Beginning Tennis: Performance and application of basic skills, rules and etiquette. Physiological and social values accruing from this lifetime sport.

PEL 2342 ED-HSW 2(2,1)
Advanced Tennis: PR: PEL 2341 or equivalent competency. A study of performance and application of advanced skills, rules, and etiquette. Physiological and social values accruing from this lifetime sport.

## PEL 2640 ED-HSW 2(2,1)

Basic Football and Basketball: The analysis of offensive and defensive alignment, techniques, and strategies.

PEM 2101 ED-HSW 2(2,1)
Body Development: An in-depth study of individual physical (musculo-skeletal, neuromuscular, cardiorespiratory) fitness. Emphasis on individual diagnosis, principles, procedures, and conduct of related exercise programs.

PEM 2104 ED-HSW 2(2,1)
Personal Fitness: Study of personal fitness concepts, with opportunities to develop individual optimal level of fitness and an improved lifestyle through high-level wellness.

## PEM 2123 ED-HSW 2(1,1)

Step Aerobics: Appropriate rhythmical muscle toning movements utilizing the step to develop aerobic fitness. Concepts taught include warm-up, flexibility, work-out, and cool-down.

## PEM 2131 ED-HSW 2(2,1)

Strength Resistance Training: Study of fitness and strength development through resistance exercise.

PEM 2171 ED-HSW 2(2,1)
Aerobic Dancing: Appropriate rhythmical muscle toning movements that develop aerobic fitness; concepts taught include warm-up, flexibility, stretching, cool down, and heart rate.

PEM 2405 ED-HSW 3(1,2)

Self Defense for Women and Men: Designed to provide students with self defense skills.
PEM 5405 ED-HSW 3(3,0)
Controlling Classroom Violence: PR: Post baccalaureate or graduate status; certified teacher; or C.I. A hands-on course dealing with controlling disruption and violence as well as how teachers can protect themselves.

PEN 1121 ED-HSW 2(2,1)
Elementary Swimming: For non-swim-mers and beginning swimmers. Develop-ment and study of technique in the basic skills of water safety and swimming.

PEO 2011 ED-HSW 3(2,1)
Team Sports: PR: This course is designed to develop skill proficiency and knowledge to plan, implement and evaluate team sports as part of the Physical Education program.

PEO 2031 ED-HSW 3(2,1)
Individual Sports and Leisure Activities: This course is designed to develop skill proficiency and knowledge to plan, implement and evaluate individual sports and leisure activities in physical education program.

## PEO 2624 ED-HSW 3(2,1)

Coaching Basketball: Theory and methods of coaching basketball, including the analysis of offensive and defensive techniques and strategies.

## PEO 3041 ED-HSW 2(1,1)

Games for the Elementary School Physical Education Program: The understanding, designing, and teaching of low-organizational game-activities for the elementary school child.

## PEO 3324 ED-HSW 3(2,1)

Coaching Volleyball: Theory and methods of coaching volleyball, including the analysis of offensive and defensive alignment techniques and strategies.

PEO 5644 ED-HSW 3(3,0)
Coaching Football: PR: C.I. Advanced principles and methods common to the coaching of football. Includes teaching and training methods, organization, motivation and strategies.

PEP 3205 ED-HSW 3(2,1)
Gymnastics: This course is designed to develop skill proficiency and instructional strategies in gymnastics.

## PET 2175 ED-HSW 2(1-2)

Country/Western Dance: Basic instruction in Country/Western Dance. Improve aerobic fitness by
learning line dances, circle dances and basic partner steps, such as two-step and waltz.
PET 2443 ED-HSW 2(1-2)
Tae Kwon Do: An analysis and application of the martial arts, as part of an overall physical and mental training system.

PET 2622 ED-HSW 3(2,1)
Human Injuries: PR: Biomechanics or C.I. The prevention, identification, care, and rehabilitation of human injuries.

## PET 3214 AS-PSYCH 3(3,0)

Sports Psychology: A review of principles of psychology related to the enhancement of satisfaction and performance in sports.

PET 3494 ED-HSW 3(3,0)
Sports and Ethics: PR: Junior standing or C.I. An exploration into ethics and its influence on sports.
PET 3620C HPA-HP 3(2,2)
Principles of Athletic Training: PR: PHY 2054C, PCB 3703C, ZOO 3733C, CHM 2046 \& Lab, and C.I. Basic athletic training, including first aid, injury recognition, taping techniques and preventive measures

## PET 3623C HPA-HP 3(2,2)

Art and Science of Athletic Training I: PR: PET 3620C. Evaluation skills required to perform athletic injury assessment

PET 3644 ED-HSW 3(2,1)
Coaching Football: Theory and methods of coaching football, including the analysis of offensive and defensive techniques and strategies.

PET 3670C HPA-HP 4(0,8)
Practicum in Athletic Training I: PR: PET 3620C. Clinical introduction to an athletic training site under direct supervision of a Certified athletic trainer.

## PET 3671C HPA-HP 4(0,8)

Practicum in Athletic Training II: PR: PET 3670C. Continuation of Clinical practicum under direct supervision of Certified athletic trainer.

## PET 3720C ED-HSW 2(1,1)

Teaching Physical Education in the Elementary and Middle School (K-8): PR: Admission to Junior Block, or C.I. Curricular and instructional considerations for teaching elementary and middle school physical education.

Teaching Physical Education in the Secondary and Middle School (6-12): PR: Admission to Junior Block, or C.I. Curricular and instructional considerations for teaching secondary and middle school physical education.

PET 3765 ED-HSW 3(3,0)
Coaching Theory and Officiating: Theory and methods of coaching and officiating techniques.
PET 4002 ED-HSW 3(1,2)
Outdoor and Leisure Activities: Study of contemporary outdoor and leisure activities. Course will include but not be limited to the "adventure activity curriculum," camping, water activities, fishing, orienteering, hiking.

## PET 4035C ED-HSW 3(2,1)

Motor Development and Learning: PR: PE Junior standing. An analysis of the theories and factors influencing the motor development of children and the learning of gross and fine motor skills.

PET 4083C ED-HSW 4(3,1)
Practical Fitness training: PR: PET 4312, PET 4351, PET 2622, PET 4382, PEM 2171. An in-depth study into fitness-related concepts as they are applied to individuals and groups.

PET 4243 ED-HSW 12(0,35)
Internship II: PR: Must have completed course work in specialization. Satisfactory completion of the portfolio. Full time student teaching under a certified elementary or secondary physical education teacher. May be repeated for credit.

PET 4312 ED-HSW 3(2,1)
Biomechanics: PR: Anatomy. The comprehension and application of anatomical and mechanical principles involved in human movement.

PET 4315C HPA-HP 3,2,2)
Biomechanics of Sport: PR: PET 4630C. Assessment and recognition of physiological and mechanical aspects of sports and injuries

## PET 4351 ED-HSW 3(2,1)

Applied Exercise and Human Physiology: An in-depth study of metabolic, neuromuscular, respiratory and cardiovascular physiological concepts and principles with practical application to physical education and sport.

## PET 4382 ED-HSW 3(2,1)

Fitness Assessment and Exercise Physiology: A study and acquisition of health related fitness, exercise strategies and related assessment techniques.

PET 4401 ED-HSW 3(3,0)
Administration and Evaluation in Physical Education: This course is de-signed to address administrative, mea-surement and evaluation considerations of physical education programs.

PET 4603 HPA-HP 3(3,0)
Introduction to Sports Medicine: A comprehensive study of care of sports injuries, including instruction in attitudes, health and conditioning in sports participants.

PET 4604 HPA-HP 3(3,0)
Sports Medicine Field Application: Demonstration and application of the treatment for various sports injuries.

## PET $4606 \quad$ HPA-HP 3(3,0)

Applied Fitness in Sport: PR: PET 3671. Appreciation and clinical application of fitness regarding athletics

PET 4624C HPA-HP 3(2,2)
Art and Science of Athletic Training II: PR: PET 3623C. Specific diagnostic and sport specific injuries in athletics

PET 4630C HPA-HP 4(2,4)
Therapeutic Exercise in Athletic Training: PR: PET 3623C. Rehabilitation processes regarding exercise progression for athletic injury

PET 4632C HPA-HP 4(2,4)
Therapeutic Modalities in Athletic Training: PR: PET 4624C. Principles and techniques for applying therapeutic modalities

## PET 4640 ED-HSW 3(3,0)

Adapted Physical Education: Principles and methods of adapting physical educa-tion activities and programs for excep-tional children and adults; mainstreaming rationale and methods analyzed.

PET 4660C HPA-HP 3(3,0)
Organization and Administration of Athletic Training: PR: PET 3671C. Administrative knowledge in the athletic training profession.

PET 4672C HPA-HP 4(0,8)
Practicum in Athletic Training III: PR: PET 3671C. Advanced clinical internship with increased responsibilities under the supervision of a Certified athletic trainer.

PET 4673C HPA-HP 4(0,8)
Practicum in Athletic Training IV: PR: PET 4672C. Advanced clinical internship with increased
responsibilities under the supervision of a Certified athletic trainer.
PET 4674 HPA-HP 1(1,0)
Athletic Training Seminar: PR: PET 4632C , PET 4632C, and Senior standing. National Examination review and introduction to related allied health professionals.

PET 4724 ED-HSW 3(3,0)
Development and History of Physical Education Curriculum: A study of the factors involved in curriculum develop-ment and historical and philosophical considerations of physical education programs.

PET 5355 HPA-HP 3(3,0)
Exercise Physiology and Health: In-depth study of adaptations of cardiovascular and respiratory systems during varying degrees of exercise.

PET 5635 ED-E PE 3(3,0)
Advanced Human Injuries: PR: PET 2622 or C.I. The application of medical knowledge to sport with the emphasis on preserving the health of an athlete before, during and after performance.

PET 5765 ED-HSW 3(3,0)
Advanced Coaching Theory: PR: C.I. Advanced study of theories and methods of coaching for optimum sports performance.

PGY 2401C AS-ART 3(3,2)
Intermediate Photography: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, PGY 2XXXC (Beginning Photography). Intermediate camera and darkroom practice designed for art majors with studio skills.

## PGY 3610C AS-COMM 3(1,4)

Photojournalism I: PR: Junior standing or C.I. Visual communication, history, picture appreciation, layout and design, picture story development, basic camera operation, and ethics. 35 mm SLR camera required.

## PGY 3640C AS-COMM 3(1,2)

Photojournalism II: PR: PGY 3610C. The Picture Story. Individual and group projects for extended documentary coverage.

PGY 3680 AS-COMM 3(3,0)
Photojournalism III: PR: PGY 3610C. Photography Editing. Assignment selection, picture and copy editing, cropping, picture desk management, and ethics of photojournalism, and the new technological advances.

Advanced Photography: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, PGY 2401C. Advanced photography skills and portfolio development. Designed for art majors. May be repeated for credit.

PGY 4440C AS-ART 3(2,3)
Special Problems in Photography: PR: ART 2201C, ART 2203C, ART 2300C, ART 2301C, PGY 2401C. Designed for upper division art majors with photography concentration. A series of directed photographic problems of a research nature.

## PHH 3041 AS-PHIL 3(3,0)

Russian Philosophy: A study of major themes and developments in Russian philosophy from the 18th century to the present, including critiques of culture, religion, society, and politics.

## PHH 3100 AS-PHIL 3(3,0)

Ancient Philosophy: PR: PHI 2010 or C.I. Foundations of Western philosophy in ancient Greek thinking about human beings and nature, including the pre-Socratics, Socrates, Plato, Aristotle.

## PHH 3200 AS-PHIL 3(3,0)

Medieval Philosophy: The influence of Greek philosophical thought in medieval Muslim, Jewish and Christian philosophy, as expressed in its main problems and representative thinkers.

PHH 3600 AS-PHIL 3(3,0)
Contemporary Philosophy: PR: PHI 2010 or C.I. Recent and current trends in philosophy, including philosophical analysis, phenomenology, structuralism, post-structuralism, and liberation philosophies.

PHH 3640 AS-PHIL 3(3,0)
Modern Western Philosophy: PR: PHI 2010. Major western philosophers and philosophical movements from Descartes to Nietzsche.

## PHH 3700 AS-PHIL 3(3,0)

American Philosophy: PR: PHI 2010 or AMH 2010 or AMH 2020 or C.I. A thematic and chronological survey of philosophical, religious, and scientific developments in American thought, with primary focus on the American spirit of individualism and reform.

## PHI 2010 AS-PHIL 3(3,0)

Introduction to Philosophy: Inquiry into the meaning and justification of funda-mental ideas and beliefs concerning reality, knowledge, and values; application to relevant topics in ethics, religion, and politics.

PHI 2010H AS-PHIL 3(3,0)
Honors Introduction to Philosophy: Same as PHI 2010 with honors-level content.
PHI 2011 AS-PHIL 3(3,0)

Philosophical Reasoning: A study of reasoning in philosophy: the role of inconsistency, infinite regress arguments, modeling, and system building, discovery procedures, diagonalization, and contract and paradigm case arguments.

PHI 2100 AS-PHIL 3(3,0)
Formal Logic I: A study of sentence and predicate logics, with introduction to modal, epistemic, deontic, multi-valued, and indeterminant logics.

PHI 2101 AS-PHIL 3(3,0)
Critical Thinking: The logic of conversation, informal fallacies, and reasoning about human action.
PHI 2630 AS-PHIL 3(3,0)
Ethics: An examination of the nature of moral problems, judgements and principles, with an emphasis on recent formulations in ethical theory.

## PHI 2647 AS-PHIL 3(3,0)

Ethics in Science and Technology: Research in critical thinking applied to ethics in science and technology. Ethical implications for privacy, ownership, fraud, quality research, relativism, and for "anything goes" philosophies.

PHI 3022 AS-PHIL 3(3,0)
Sexuality, Gender \& Philosophy: Examines the contributions of poststruc-turalist and neopsychoanalytical theories to cultural issues in sexuality and gender.

## PHI 3033 AS-PHIL 3(3,0)

Philosophy, Religion, and the Environment: PR: Junior standing or C.I. A multicultural treatment of the influence of philosophical and religious views on our understanding of, and relation to, the environment.

PHI 3320 AS-PHIL 3(3,0)
Philosophy of Mind: Recent and contemporary attempts to understand the relation of mind to body, the relation of consciousness to personhood, and the relation of psychology to neurobiology.

## PHI 3400 AS-PHIL 3(3,0)

Philosophy of Law: Study of the nature of, and justifications for, law and punish-ment. Examination of the concepts of legal personhood, rights and responsibilities.

PHI 3451 AS-PHIL 3(3,0)
Philosophy of Psychology: PR: Junior standing or C.I. Philosophical assumptions and foundations of major psychological movements plus other philosophically interesting issues.

PHI 3601 AS-PHIL 1(1,0)
Practical Wisdom: A radio course in applied ethics which focuses on the human good, dealing with
the relationship between means and ends and how they define one another.
PHI 3638 AS-PHIL 3(3,0)
Ethical Issues in the 21st Century: PR: PHI 2010 or C.I. Applications of ethical theory and moral problem-solving to contemporary issues.

PHI 3640 AS-PHIL 3(3,0)
Environmental Ethics: PR: Junior standing. Major contemporary views in environmental ethics, including individual and holistic approaches, deep ecology, ecofeminism, and social ecology

## PHI 3670 AS-PHIL 3(3,0)

Ethical Theory: PR: Junior standing and C.I. Major classical and contemporary topics in ethics, including value theory, utilitarian, deontological, virtue-based and feminist approaches to ethics, rights, and justice; some examination of metaethical issues.

PHI 3700 AS-PHIL 3(3,0)
Philosophy of Religion: An examination of basic ideas, beliefs, attitudes, and functions of religion, with emphasis upon questions of conceptual meaning and cognitive justification.

PHI 3800 AS-PHIL 3(3,0)
Aesthetics: An investigation into the nature of human artistic experience, with special reference to questions of form, perception, and style.

## PHI 3803 AS-PHIL 3(3,0)

Philosophy and Creativity: A compan-ion course to PHI 3800, Aesthetics. Examines the empirical and metaphysical claims made for creativity; attempts to account for intuition, genius, and intelligence.

## PHI 3941 AS-PHIL 3(1,3)

Philosophy Practicum: PR: C.I. Mentor at-risk grade schoolers three hours weekly and participate in a two-hour class every other week, evaluating such work-related concepts as justice and fairness. Pass/Fail grading.

## PHI 4300 AS-PHIL 3(3,0)

Theories of Knowledge: PR: Philosophy major or C.I. Classical and contemporary theories of knowledge. A critical examination of various forms of, and reasons for, skepticism, criteria for truth and justification for belief.

PHI 4321 AS-PHIL 3(3,0)
Philosophies of Embodiment: Mind/Body/Self: PR: PHI 2010 or C.I. Different ways of understanding relations between mind, body, and nature. Self-knowledge as articulated by western and non-western philosophies from ancient to contemporary times.

Ways of Knowing: PR: PHI 2010 or C.I. Philosophic study of approaches to knowledge, with emphasis on contributions of the knower to how things are known.

## PHI 4400 AS-PHIL 3(3,0)

Philosophy of Science: An examination of the conceptual foundations and methodology of modern science.

PHI $4420 \quad$ AS-PHIL 3(3,0)
Philosophy of Social Science: An examination of the objectives, methods and guiding norms of the social sciences and their role in the development of human knowledge.

PHI $4500 \quad$ AS-PHIL 3(3,0)
Metaphysics: PR: Philosophy major or C.I. Topics include appearance and reality, actions and events, necessity and possibility, identity, nature of persons, mind-body dualism, causality, and free will and determinism.

PHI 4633 AS-PHIL 3(3,0)
Ethics and Biological Science: PR: Com-pletion of the GEP. An application of contemporary thinking to ethical issues arising from the biological sciences, including human and animal experiment-ation, genetic engineering, biodiversity.

## PHI 4804 AS-PHIL 3(3,0)

Critical Theory: PR: C.I. Critical theory and cultural studies emphasizing current trends as they apply to arts in diverse media.

## PHI 4931 AS-PHIL 3(3,0)

Philosophy in the News: PR: PHI 2010. Changing course content. A specific topic being covered by the media will be selected for philosophical examination. Course is web enhanced.

## PHI 4951 AS-PHIL 1(1,0)

Portfolio: PR: Last semester as Philoso-phy major. Presentation of a representa-tive sampling of student's best work, with appropriate revisions, including a cover narrative indicating development of philosophical knowledge and skills. Graded S/U.

## PHM 3100 AS-PHIL 3(3,0)

Freedom and Justice: Philosophical analysis and evaluation of selected issues arising from the interaction of the individual, society, and the state; includes topics such as freedom, equality, and justice.

## PHM 3123 AS-PHIL 3(3,0)

Feminist Theories: PR: ENC 1102. Contemporary issues and perspectives in feminist theory and their relation to divergent feminist practices.

Environmental Philosophy: PR: PHI 3640, PHI 2630, or C.I. Major contemporary positions in environmental philosophy, including deep ecology, ecofeminism, and social ecology.

## PHM 5035 AS-PHIL 3(3,0)

Environmental Philosophy: PR: PHI 3640, PHI 3600 or C.I. This course will provide an in-depth examination of the major contemporary positions in environ-mental philosophy, including deep ecolo-gy, ecofeminism, and social ecology.

PHP 3786 AS-PHIL 3(3,0)
Existentialism: Study of existentialist analysis and criticism of the human situation as found in the writings of such philosophers as Kierkegaard, Nietzsche, Heidegger, Sartre, and Camus.

## PHT $3002 \quad$ HPA-HP 2(2,0)

Foundations of Physical Therapy I: PR: PHT 3259; PHT 3259L. An introduction to the profession of physical therapy. Patient-practitioner interaction and docu-mentation skills addressed. Appreciation of the total health care team approach to modern medicine; utilization of profes-sional ethics and values are presented.

## PHT 3011 HPA-HP 3(3,0)

Physical Therapy as a Career: PR: ENC 1102. The science and art of physical therapy, with emphasis on the role and function of physical therapists.

## PHT $3069 \quad$ HPA-HP 1(1,0)

Physical Assessment: CR: PHT 3069L. Extensive theory and practice in the examination of the patient. Incorporates a systems approach, utilizing screening and patient problem solving.

## PHT 3069L HPA-HP 2(0,4)

Physical Assessment Lab: PR: PHT 3069. Lab course emphasizing the examinations required to perform an evaluation of a physical therapy patient.

## PHT $3112 \quad$ HPA-HP 2(2,0)

Gross Anatomy/Neuroscience I: PR: Admission into the Physical Therapy program. CR: PHT 3112L. In-depth study of human morphology emphasizing the back, spinal cord, cranial nerves, and upper lower extremities. Regional cadaver dissection.

## PHT 3112L HPA-HP 3(0,6)

Gross Anatomy/Neuroscience I Lab: CR: PHT 3112C. Human cadaver dissection of the back, spinal cord, cranial nerves, and upper and lower extremities.

## PHT $3113 \quad$ HPA-HP 2(2,0)

Gross Anatomy/Neuroscience II: PR: PHT 3112; PHT 3112L. CR: PHT 3113L. In-depth study of human morphology emphasizing the brain, the cervical spine, pelvis, and the internal organs.

Gross Anatomy/Neuroscience II Lab: CR: PHT 3113. Directed laboratory experiences with cadaver dissection; use of the skeleton, models, and computer programs to facilitate learning.

## PHT $3122 \quad$ HPA-HP 3(3,0)

Clinical Kinesiology: CR: PHT 3120L. Mechanical aspects of human movement, including joint mechanics of the upper and lower extremity, the vertebral column, and tissue mechanics of relevant human tissues. Coordinated with cadaver dissection.

## PHT 3122L HPA-HP 3(3,0)

Clinical Kinesiology Lab: CR: PHT 3122C. Lab course investigating the mechanical aspects of human movement.

## PHT $3155 \quad$ HPA-HP 2(2,0)

Physiology of Therapeutic Exercise: PR: PHT 3259C. CR: PHT 3155L. Exercise physiology investigating the physiological responses and adaptations to human movement including cardiovascular and pulmonary systems.

PHT 3155L HPA-HP 2(0,4)
Physiology of Therapeutic Exercise Lab: CR: PHT 3155. Lab course emphasizing the clinical application of exercise physiology.

PHT $3259 \quad$ HPA-HP 2(2,0)
Patient Care Skills: CR: PHT 3259. Affective, cognitive, and psychomotor skills applied to patient care. Diversity issues discussed. Basic skills of patient care; transfers, mobility skills, draping, gait training.

PHT 3259L HPA-HP 1(0,2)
Patient Care Skills Lab: CR: PHT 3259. Lab course covering basic skills of patient care; transfers, mobility skills, draping, gait training.

## PHT $3602 \quad$ HPA-HP 2(2,0)

Introduction to Clinical Research: PR: STA 2023. Methods of research applied to clinical environment of physical therapy. Coverage of the language, logic, design and analysis of clinical research.

## PHT 4119C HPA-HP 4(3,2)

Clinical Gross Anatomy: PR: ZOO 3733C and C.I. Review of human anatomical systems using cadavers and emphasizing clinical applications and pathologies.

PHT 4215 HPA-HP 3(3,0)
Theories and Procedures I: PR: Enrollment in sequence in the Physical Therapy program. CR: PHT 4215L. Theories of physical agents heat, light, cold, water, sound, and massage: problem solving rationale and selection of interventions for inflammation, pain, edema, spasm \&weakness.

Theories and Procedures I Lab: CR: PHT 3214. Lab course on the clinical application of heat, light, cold, water, sound, and massage.

## PHT $4216 \quad$ HPA-HP 2(2,0)

Theories and Procedures II: PR: PHT 4215, PHT 4215L CR: PHT 4216L. Continuation of Theories and Procedures I. Focus on electrodiagnosis and electrophysiologic examinations and the interventions used in the treatment of pain and dysfunction.

## PHT 4216L HPA-HP $\mathbf{1}(0,2)$

Theories and Procedures II Lab: CR: PHT 4216. Lab course focusing on electrodiagnosis and electrophysiologic examinations, and the interventions used in the treatment of pain and dysfunction.

## PHT 4222 HPA-HP 2(2,0)

Therapeutic Exercise I: PR: PHT 3155; PHT 3155L. CR: PHT 4222L. Theory of developing, implementing, and evaluating a therapeutic exercise program for patients with musculoskeletal dysfunction.

## PHT 4222L HPA-HP 1(0,2)

Therapeutic Exercise I Lab: CR: PHT 4222. Lab course emphasizing therapeutic exercise skills for the treatment of patients with musculoskeletal dysfunction.

PHT $4230 \quad$ HPA-HP 2(2,0)
Therapeutic Exercise II: PR: PHT 4222; PHT 4222L. CR: PHT 4230L. Exploration of the various therapeutic exercise modalities, and their application to the rehabilitation course treatment.

PHT 4230L HPA-HP $\mathbf{1}(0,2)$
Therapeutic Exercise II Lab: CR: PHT 4230. Lab course emphasizing use of various therapeutic exercise modalities.

## PHT $4234 \quad$ HPA-HP 2(2,0)

Neurological Physical Therapy: PR: PHT 3069; PHT 3069L. CR: PHT 4234L. Analysis of selected neuromotor theories and their clinical applications. Examinations and interventions for the evaluation and treatment of neurological patients presented.

## PHT 4234L HPA-HP 2(0,2)

Neurological Physical Therapy Lab: CR: PHT 4234. Lab course emphasizing the clinical application of selected neuromotor theories.

## PHT 4307 HPA-HP 3(3,0)

Pathology/Pharmacology: PR: PHT 3113. Organized seminars on the pathophysiology and clinical manifestations of various medical conditions as they relate to medical management in physical therapy practice.

Medical Science and Pharmacology II: The impact on movement and posture of various orthopedic and neurological dis-orders; drugs used in their management. Relates neuropathology and orthopedic pathology to the study of movement.

PHT 4311C HPA-HP 2(1,2)
Clinical Neurology in Physical Thera-py: Analysis of selected neuromotor theories and their clinical applications. Advanced evaluation and treatment procedures. The use of research to determine optimum regimen in treating neurological patients.

PHT $4316 \quad$ HPA-HP 2(2,0)
Orthopedic Physical Therapy: PR: PHT 3069; PHT 3069L. CR: PHT 3316L. Examination and interventions for the evaluation and treatment of specific orthopedic cases and injuries are presented. Injury recognition, signs and symptoms or othopedic involvement, and documentation are highlighted.

## PHT 4320C HPA-HP 2(2,1)

Pediatric Physical Therapy: PR: PHT 3259; PHT 3259L. CR: PHT 4320CL. The psychosocial, gross morphological and neurodevelopmental sequences that provide the baseline for pediatric clinical evaluation and treatment of individuals from birth to twenty one years of age and introduction to evaluation and treatment of pediatric clients.

## PHT 4372C HPA-HP 2(2,1)

Gerontology in Physical Therapy Practice: PR: PHT 4320C; PHT 4143L. Normal aging processes and the health status of older people. Examinations and interventions used in the older population, implications of altered health states, drug use, referral sources, plus legal/ethical considerations. Emphasis on clinical decision-making.

## PHT 4380C HPA-HP 2(2,1)

Cardiopulmonary Physical Therapy: Examinations and interventions for the management of chronic and acute cardio-pulmonary problems. Teaching patient strategies for preventing/managing dysfunction.

## PHT $4610 \quad$ HPA-HP 2(1,3)

Clinical Research Problems I: PR: Enrollment in sequence in the Physical Therapy program. Exploration of clinical problem-solving, decision making process. Critical review of relevant medical literature and supervised patient evaluation sessions.

## PHT 4707C HPA-HP 2(2,1)

Functional Rehabilitation: PR: Full time enrollment in PT program. Functional management of patients seen in long term rehabilitation setting. Develop and implement a PT plan of care for patients.

## PHT 4821L HPA-HP 2(0,6)

Clinical Education I: PR: Enrollment in Physical Therapy program. Full time supervised clinical
education in physical therapy settings. Application of objectives of courses previously completed.

## PHT 4822 HPA-HP 2(0,16)

Clinical Education II: Six weeks of supervised clinical education in a general hospital setting. All previous education objectives apply and are accumulative.

PHT $4823 \quad$ HPA-HP $\mathbf{1}(0,8)$
Clinical Education III: Clinical practi-cum in a long-term care setting. Emphasis on gerontology. Supervised by a licensed physical therapist, the student will inte-grate and apply all previous course work.

## PHT $4832 \quad$ HPA-HP $\mathbf{1}(0,8)$

Clinical Education IV: PR: PHT 4320C, PHT 4372C. Full-time clinical internship under the supervision of a physical therapist, the student practices and integrates evaluation skills and treatment knowledge from previous courses.

PHT $5003 \quad$ HPA-HP 2(2,0)
Foundations of Physical Therapy I: PR: Admission to the PT program. Introduc-tion to the profession of physical therapy.

PHT 5005 HPA-HP 2(2,0)
Foundations of Physical Therapy II: PR: Foundations of Physical Therapy I. Psychosocial aspects of disability. Focus on cultural diversity issues, communica-tion skills, and different styles of learning and teaching.

## PHT 5115 HPA-HP 2(2,0)

Gross Anatomy/Neuroscience I: PR: Admission to PT program. In-depth study of human morphology emphasizing the back, spinal cord, cranial nerves, and upper and lower extremities. Regional cadaver dissection.

## PHT 5115L HPA-HP 2(0,4)

Gross Anatomy/Neuroscience I Lab: PR: Admission to PT program. Human cadaver dissection of the back, spinal cord, cranial nerves, and upper and lower extremities.

## PHT $5118 \quad$ HPA-HP 2(2,0)

Gross Anatomy/Neuroscience II: PR: PR Gross Anatomy/Neuroscience I and Lab; CR Gross Anatomy Neuroscience II Lab. In-depth study of human morphology emphasizing the brain, the cervical spine, pelvis, and the internal organs.

PHT 5118L HPA-HP 2(0,4)
Gross Anatomy/Neuroscience II Lab: PR: Gross Anatomy Neuroscience I and Lab; CR Gross Anatomy Neuroscience II. Directed Laboratory experiences with cadaver dissection; use of the skeleton, models, and computer programs to facilitate learning.

Clinical Kinesiology: CR: Clinical Kinesiology Lab. Investigates the mechanical aspects of human movement, joint mechanics of the upper and lower extremity, the vertebral column and tissue mechanics of relevant human tissues.

## PHT 512545125L HPA-HP

Clinical Kinesiology Lab: PR: CR Clinical Kinesiology. La b course investigating the mechanical aspects of human movement.

## PHT $5156 \quad$ HPA-HP 2(2,0)

Physiology of Therapeutic Exercise: PR: Admission to PT program. Exercise physiology investiages the physiological responses and adaptations to human movement including cardiovascular and pulmonary.

PHT 5156L HPA-HP 2(0,4)
Physiology of Therapeutic Exercise Lab: CR: PHT 5156. Lab course emphasizing the clinical application of exercise physiology.

## PHT 5218 HPA-HP 2(2,0)

Theories and Procedures I: PR: CR Theories and Procedures I Lab. Theories of physical agents, heat, light, cold, water, sound, and massage; problem solving rationale and selection of interventions for inflammation, pain, edema, and weakness.

## PHT 5218L HPA-HP 1(0,2)

Theories and Procedures I lab: PR: CR Theories and Procedures I. Lab course on the clinical applications of heat, light, cold, water, sound, and massage.

PHT $5240 \quad$ HPA-HP 1(1,0)
Physical Assessment: PR: Physical Assessment Lab. Extensive theory and practice in the examination of the patient. Incorporate a systems approach, utilizing screening, and patient problem solving.

PHT 5240L HPA-HP 2(0,4)
Physical Assessment Lab: PR: CR Phys-ical Assessment. Lab course emphasizing the examinations required to perform an evaluation of physical therapy patient.

PHT 5241 HPA-HP 2(2,0)
Therapeutic Exercises I: PR: CR Thera-peutic Exercises I Lab. Theory of developing, implementing, and evaluating a therapeutic exercise program for patients with musculoskeletal dysfunction.

PHT 5241L HPA-HP 2(0,4)
Therapeutic Exercise Lab I: PR: Therapeutic Exercise I. Lab course emphasizing therapeutic exercise skills for the treatment of patients with musculoskeletal dysfunction.

Patient Care Skills: CR: Patient Care Skills Lab. Affective, cognitive, and psychomotor skills, regarding patient care. Basic skills of patient care, transfers, mobility skills, draping, gait training.

PHT 5260L HPA-HP 1(0,2)
Patient Care Skills Lab: CR: Patient Care Skills. Skills of patient care, transfers, mobility skills.

## PHT $5306 \quad$ HPA-HP 2(2,0)

Pathology/Pharmacology: PR: Admission to PT program. Organized seminars on the pathophysiology and clinical manifestations of various medical conditions as they related to medical management in physical therapy practice.

## PHT 5411 HPA-HP 3(3,0)

Foundations of Physical Therapy II: PR: PHT 3002C. This course emphasized the psychosocial aspects of disability. Focus on cultural diversity issues, communication skills, and different styles of learning and teaching.

## PHT 5605 HPA-HP 2(2,0)

Research Methods in Physical Therapy: PR: STA 2023. Methods of research applied to clinical environment of physical therapy. Coverage of the language, logic, design and analysis of clinical research.

PHT $5718 \quad$ HPA-HP 2(2,0)
Neurological Physical Therapy: PR: CR Neurological Physical Therapy Lab. Analysis of selected neuromotor theories and their clinical applications. Examina-tions and interventions for the evaluation and treatment of neurological patients presented.

PHT 5718L HPA-HP 1(0,2)
Neurological Physical Therapy Lab: PR: CR Neurological Physical Therapy. Lab Course emphasizing the clinical application of selected neuromotor theories.

PHT 5722C HPA-HP 2(2,1)
Physical Therapy Integration I: PR: Admission to PT program. Problem solving approach to selected dysfunc-tions, including burns and open wounds, and selected diagnostic procedures and therapy interventions.

## PHT $5805 \quad$ HPA-HP $\mathbf{1}(0,4)$

Clinical Education I: PR: Admission to PT program. Full-time supervised clinical education in physical therapy settings. Application of objectives of courses previously completed.

## PHT $5816 \quad$ HPA-HP 2(0,6)

Advanced Clinical Applications I: PR: PHT 3821. Full time supervised clinical education in a physical therapy setting. All previous education objectives apply and are cumulative.

Physics for Teachers I: PR: C.I. "Hands-on" lecture-laboratory course. Statics, simple machines, density, solar energy, heat, weather, waves, optical reflections, naked eye astronomy.

PHY 2048 AS-PHYS 3(3,0)
Physics for Engineers \& Scientists I: PR: MAC 2311 or equivalent. Mechanics, Thermodynamics, fluids

## PHY 2048H AS-PHYS 3(3,0)

Honors Physics for Engineers and Scientists I: PR: MAC 2311 or equivalent. Same as PHY 2048 with honors-level content.

PHY 2048L AS-PHYS $\mathbf{1}(0,3)$
Physics Laboratory for Engineers and Scientists I: CR: PHY 2048. Laboratory experiments covering selected topics in physics related to PHY 2048.

PHY 2048LH AS-PHYS $\mathbf{1}(0,3)$
Honors Physics Laboratory for Engineers and Scientists I: PR: MAC 2311 or equivalent. Same as PHY 2048L with honors-level content.

PHY 2049 AS-PHYS 3(3,0)
Physics for Engineers and Scientists II: PR: MAC 2312 and PHY 2048 or PHY 3048H. Electricity, magnetism, optics.

PHY 2049H AS-PHYS 3(3,0)
Honors Physics for Engineers and Scientists II: PR: PHY 2048H, MAC 2312. Same as PHY 2049 with honors-level content.

## PHY 2049L AS-PHYS 1(0,3)

Physics Laboratory for Engineers and Scientists II: CR: PHY 2049. Laboratory experiments covering selected topics in physics related to PHY 2049.

PHY 2053C AS-PHYS 4(3,3)
College Physics I: PR: MAC 1105 and MAC 1114 or equivalent or C.I. Mechanics, waves, thermodynamics.

## PHY 2054C AS-PHYS 4(3,3)

College Physics II: PR: PHY 2053C. Fluids, electricity and magnetism, optics, x-rays, radioactivity.
PHY 2093 AS-PHYS 0(0,1.5)
Physics Today: CR: PHY 2048 or PHY 2049. Fundamental physics principles behind recent developments in physics research will be presented in a seminar format. May be repeated for credit.

Physics for Engineers and Scientists III: PR: MAC 2313 and PHY 2049 or PHY 3049H. Thermodynamics, oscillations, modern physics.

## PHY 3110H AS-PHYS 3(3,0)

Honors Physics for Engineers and Scientists III: PR: PHY 2049 or PHY 3049H. Same as PHY 3101 with honors-level content.

PHY 3221 AS-PHYS 3(3,0)
Mechanics I: PR: PHY 3048 or 3048H, MAP 3302. Particle dynamics, rigid bodies, Lagrangian formulation of mechanics, Hamilton's equations.

PHY 3323 AS-PHYS 3(3,0)
Electricity and Magnetism I: PR: PHY 2049, MAP 2302. Electrostatics, magnetostatics, Lorentz force current electricity, Maxwell's equations.

PHY 3503 AS-PHYS 3(3,0)
Thermal and Statistical Physics: PR: PHY 3101 or PHY 3101H or C.I. Ther-modynamics, kinetic theory, elements of statistical mechanics.

PHY 3722C AS-PHYS 3(1,5)
Physics Laboratory-Electronics: PR: PHY 2049, PHY 2049L. State-of-the-art electronics, transducers, operational amplifiers, phase sensitive circuits, active filters.

## PHY 3752C AS-PHYS 3(1,5)

Physics of Scientific Instruments: PR: PHY 3101 or C.I. Applications, functions and operation of electronic instruments.

## PHY 3802L AS-PHYS 3(1,5)

Intermediate Physics Laboratory: PR: PHY 3101 or C.I. Laboratory work in basic measurements of physical constants; experiments in electronics, modern physics, nuclear physics, optics, and solid state physics. May be repeated for credit.

## PHY 4324 AS-PHYS 3(3,0)

Electricity and Magnetism II: PR: PHY 3323. Dielectrics, magnetic materials, electromagnetic waves, reflection, complex impedance, static solutions to Laplace's Equation, radiation from an accelerated charge and antennae, special relativity.

PHY 4424 AS-PHYS 3(3,0)
Optics: PR: PHY 3101 and PHY 3323. Wave optics, absorption, stimulated emission, lasers, transforms, coherence, holography.

Optical Physics Laboratory: A laboratory course on geometric optics, interference, diffraction, materials and modern optics.

## PHY 4445 AS-PHYS 3(3,0)

Lasers: PR: PHY 3101, MAP 2302, PHY 4424, or C.I. Principles of laser gain med-ia, properties of resonators and modes, and description of specific laser systems.

PHY 4604 AS-PHYS 3(3,0)
Wave Mechanics I: PR: PHZ 3113. Postulates of Quantum Mechanics. Operators and Observables, Schroedinger equation with simple applications.

## PHY 4605 AS-PHYS 3(3,0)

Wave Mechanics II: PR: PHY 4604. Further applications of quantum mechanics, perturbation theory, scattering theory, identical particles.

PHY 4803L AS-PHYS 3(1,5)
Advanced Physics Laboratory: PR: PHY 3802L. Experiments in optics, electronics, nuclear and solid state physics. Emphasis on design, data, and scientific writing.

## PHY 4942C AS-PHYS $\mathbf{3}(\mathbf{2}, 3)$

Practicum in Physics: PR: C.I. Physics laboratories and demonstrations, and the study of recent research on the learning of physics.

## PHY 5015C AS-PHYS 3(2,2)

Physics for Teachers II: PR: C.I. "Hands-on" lecture-laboratory course. Dynamics, electricity, magnetism, optics, nuclear radiation.

## PHY 5081C AS-PHYS $1(0.5,1.5)$

Physics of Astronomy for Teachers: PR: C.I. Laws of motion, law of gravity, Kepler's Laws, two body orbits, light and spectroscopy. The doppler shift, blackbody radiation, gas laws and stellar evolution.

## PHY 5100 AS-PHYS $\mathbf{1}(1,0)$

Topics in Contemporary Physics for Teachers: PR: C.I. The study of recent findings in a selected area such as particle physics, surface physics, planetary atmospheres, lasers, geophysics, etc. May be repeated for credit.

## PHY 5200C AS-PHYS $\mathbf{1}(\mathbf{0 . 5 , 1 . 5})$

Newtonian Mechanics for Teachers: PR: C.I. A lab, lecture, demonstration course studying selected topics in classical mechanics.

PHY 5300C AS-PHYS $\mathbf{1}(0.5,1.5)$
Electricity for Teachers: PR: C.I. Circuits, multimeters, oscilloscopes, circuit elements.

PHY 5302C AS-PHYS $1(0.5,1.5)$
Electromagnetism for Teachers: PR: C.I. Gauss' Law, Biot-Savart Law, Ampere's Law, Faraday's Law, Lenz's law, motors, generators, AC circuits and Maxwell's Equations.

PHY 5346 AS-PHYS 3(3,0)
Electrodynamics I: PR: PHY 4324 or C.I. Boundary value problems in electro-statics and magnetostatics. Maxwell's equations. EM fields in matter, wave generation and propagation; wave guides, resonant cavities.

## PHY 5401C AS-PHYS $\mathbf{1}(0.5,1.5)$

Optics for Teachers: PR: C.I. Geometrical and physical optics, spectrometers and lasers.
PHY 5455 AS-PHYS 3(3,0)

Modern X-Ray Science: An introduction to the science and applications of modern x-ray optics, x -ray lasers, etc., with a review of basic properties of x-rays.

PHY 5465C AS-PHYS $\mathbf{1}(0.5,1.5)$
Wave Motion for Teachers: PR: C.I. Water waves, waves on strings, sound and vibrations.

## PHY 5500C AS-PHYS $\mathbf{1}(0.5,1.5)$

Thermal Physics for Teachers: PR: C.I. Engines, heat pumps, kinetic theory, phase changes, radiation, weather.

PHY 5524 AS-PHYS 3(3,0)
Statistical Physics: PR: PHY 3503, STA 3032, or C.I. A study of physical concepts and methods appropriate for the descrip-tion of systems involving many particles. Ensemble theory, partition functions. Maxwell Boltzmann, Bose-Einstein, Fermi-Dirac statistics.

PHY 5601 AS-PHYS $\mathbf{1}(1,0)$
Quantum Physics for Teachers: PR: C.I. Hydrogen atom, diatomic molecules, heat capacity transition rates.

PHY 5606 AS-PHYS 3(3,0)
Quantum Mechanics I: PR: PHY 4605 or C.I. Basic postulates of quantum mechanics, operators, eigenvalues, parity, potential wells, harmonic oscillator, time dependent and time independent Schrodinger equation, matrix formulation, and time independent perturbation theory.

## PHY 5933 AS-PHYS 3(3,0)

Selected topics in biophysics of macromolecules: PR: PHY 3101, CHM 2046, or C.I. Physical concepts and techniques used in the spectroscopic study of dynamic structure and function of biological macromolecules such as proteins; Connections with other complex systems. May be repeated for credit.

Introduction to Theoretical Methods of Physics: PR: MAP 2302. Analytical techniques to solve problems of physics.

PHZ 3151 AS-PHYS 3(3,0)
Computer Methods in Physics: PR: PHY 3101. Non-analytical problems in physics and astronomy solved by approximation with computer assistance.

PHZ 5304 AS-PHYS 3(3,0)
Nuclear and Particle Physics: PR: PHY 4604 or equivalent. Particles and nuclei, symmetries and conservation laws, interactions, models.

PHZ 5405 AS-PHYS 3(3,0)
Condensed Matter Physics: PR: PHY 4604, PHY 3101, or C.I. Crystal lattice cell structure, phonons, free electron model, band theory of solids, Fermi surface, solid state applications, and polymers.

PHZ 5505 AS-PHYS 3(3,0)
Plasma Physics: PR: PHY 4324 or C.I. Introduction to theory and experimental basis of both weakly and highly ionized plasmas. Instabilities, plasma waves, nonlinear effects, controlled thermonuclear fusion.

## PHZ 5600 AS-PHYS 1(1,0)

Special Relativity for Teachers: PR: C.I. Length contraction, time dialation, simultaneity, conservation of mass-energy, conservation of momentum, Compton scattering.

## PLA 3013 HPA-CJ/LS 3(3,0)

Law and the Legal System: A survey course designed to familiarize the student with the American legal system, ethical considerations, terminology, legal reasoning, and the role of the legal assistant.

## PLA 3104 HPA-CJ/LS 3(3,0)

Legal Research: PR: PLA 3013 or C.I. A study of the various research tools used in legal investigation and the methods used to conduct legal research.

## PLA 3155 HPA-CJ/LS 3(3,0)

Legal Writing: PR: PLA 3104. A study of legal writing format and technique and the preparation of memoranda and other legal documents, using research skills learned in PLA 3104.

PLA 3201 HPA-CJ/LS 3(3,0)
Civil Practice and Procedure: PR: PLA 3013 or C.I. The student becomes familiar with the Florida civil procedure before trial and acquires the ability to prepare basic pleadings.

Civil practice and Procedure - Honors: PR: PLA 3013 or CI. Same as PLA 3201 with honors level content.

## PLA 3273 HPA-CJ/LS 3(3,0)

The Law of Torts: PR: PLA 3013 or C.I. Theories governing liability for civil injuries not arising from contractual obligations; systems and procedures used in preparation, trial and appeal of Torts cases.

## PLA 3304 HPA-CJ/LS 3(3,0)

Criminal Law: Basic concepts of substantive criminal law. The course includes examination of elements of major crimes, criminal responsibility, legal defenses, and parties to crime.

PLA 3308 HPA-CJ/LS 3(3,0)
Criminal Procedure: PR: PLA 3013 or CCJ 3024 or C.I. Rules of criminal procedure, with emphasis on Florida rules, including right to counsel, bail, search and seizure, arrest, identification, trial, and post-trial proceedings.

PLA 3610 HPA-CJ/LS 3(3,0)
Property and Real Estate Law: PR: PLA 3013. Study of the law of real and personal property; real estate transactions and conveyances; closing procedures and title problems.

PLA $4020 \quad$ HPA-CJ/LS 3(3,0)
Law and Society: Examination of the relationship between law and American society including the impact on the legal system and legal profession of major social movements.

## PLA 4263 HPA-CJ/LS 3(3,0)

Evidence: PR: PLA 3013 and 3203 or C.I. An examination of statutes and cases that define rules of evidence for trial courts. Primary emphasis is on the Florida Evidence Code.

## PLA $4423 \quad$ HPA-CJ/LS 3(3,0)

The Law of Contracts: Study of the basic law of contracts as developed in Anglo-American law and as changed by modern statutes, including the Uniform Commercial Code. Florida contract law will be emphasized.

## PLA 4433 HPA-CJ/LS 3(3,0)

Florida Partnerships and Corpora-tions: Statutory requirements of Florida partnerships and corporations; creation and dissolution of business organizations, responsibilities of officers and basic rights of stockholders.

## PLA 4483 HPA-CJ/LS 3(3,0)

Administrative Law: PR: PLA 3013 or PAD 3003. The law regarding governmental agencies with emphasis on the administrative process, Administrative Procedures Acts and special problems of state administrative law.

Cyber Law I: PR: PLA 3013. Analysis of copyright, trademark, and patent issues in cyberspace.
PLA 4601 HPA-CJ/LS 3(3,0)
Estates and Trusts: PR: PLA 3013, PLA 3504. A study of wills and trusts, and applicable legal principles of administration of estates through the processes of the Probate Court.

PLA 4602 HPA-CJ/LS 3(3,0)
Estate Administration: PR: PLA 4601.
Study of the laws and procedures applicable to administration of estates.

## PLA 4631 HPA-CJ/LS 3(3,0)

Land Use and Environmental Law: PR: PLA 3013, PLA 3504. Study of the law relating to private and public restraints on land use, including planning, zoning, subdivision and building regulations, with emphasis on recent interpretations by judiciary for environmental protection.

## PLA $4700 \quad$ HPA-CJ/LS 3(3,0)

Professional Ethics and Liability: PR: PLA 3013. Ethical responsibilities of professionals. Canons of legal ethics, liability for professional malpractice.

PLA $4710 \quad$ HPA-CJ/LS 1(1,0)
Careers in Legal Studies: PR: Major in Legal Studies or C.I. Applications of Legal Studies. Students will explore options in legal studies, professional development, and ethics.

PLA 4732 HPA-CJ/LS 3(3,0)
Advanced Legal Applications Comput-er Software: PR: PLA 3013 or CI. Course will acquaint students with con-temporary computer software applications used to satisfy the demands of today's law firms and law-related fields.

## PLA 4763 HPA-CJ/LS 3(3,0)

Law Office Practices: PR: PLA 3013. Organization, operation and management of law office. Interviewing techniques and practical application of work that is done in a law office.

PLA $4800 \quad$ HPA-CJ/LS 3(3,0)
Domestic Relations Law: PR: PLA 3013, PLA 3504. Role of the legal assis-tant in all phases of family and juvenile law. Fundamental procedures and principles applied by the courts to family problems.

## PLA 4813 HPA-CJ/LS 3(3,0)

Juvenile Law and Procedure: PR: PLA 3013 or C.I. Examines both the substantive and procedural law for juvenile delinquency and dependency. Emphasis on Florida law and comparison with other jurisdictions.

Sports Law: PR: PLA 3010 or C.I. Introduction to the legal issues and regulation of sports, focusing on torts, contracts, agency and constitutional law as applied to athletes.

## PLA 4825 HPA-CJ/LS 3(3,0)

Entertainment Law: PR: PLA 3013 or CI. Introduction to the control and regulation of the entertainment industry and the associated legal issues.

## PLA $4830 \quad$ HPA-CJ/LS 3(3,0)

World Legal Systems: PR: PLA 3013 or equivalent. An examination of various legal traditions and systems of the World. Substantive and procedural laws will be examined.

## PLA $4910 \quad$ HPA-CJ/LS 3(4,0)

Trial Advocacy: PR: PLA 3013 or CI. Analysis of the entire litigation process form the initial client interview through the appellate stage, and development of oral advocacy skills.

PLA 4935 HPA-CJ/LS 3(3,0)
Capstone: Legal Issues: PR: senior status, Leagal Studies major. The legal and sociolegal analysis of selected issues that require students to synthesize their legal studies education

PLA 5937 HPA-CJ/LS 3(1,2)
Seminar in Contemporary Legal Prob-lems: PR: C.I. Analysis of current trends in legislation and court decisions and their significance to American society.

## POR 1120 AS-LANG $\mathbf{4}(4,1)$

Elementary Portuguese Language and Civilization I: Introduces the student to Portuguese culture through the major language skills: listening, speaking, read-ing, and writing. Open only to students with no experience in this language.

## POR 1121 AS-LANG 4(4,1)

Elementary Portuguese Language and Civilization II: PR: POR 1120 or C.I. Continuation of POR 1120. The course emphasizes the four major language skills: reading, writing, listening, and speaking.

POS 2041 AS-POLS 3(3,0)
American National Government: A study of the dynamics of American national government, including its structure, organization, powers, and procedures.

POS 2041H AS-POLS 3(3,0)
Honors American National Govern-ment: Same as POS 2041 with honors-level content
POS 3122 AS-POLS 3(3,0)
State Government and Public Policy: PR: POS 2041 or C.I. A comparative study of American state
governments, political processes, and public policies, with emphasis on Florida.
POS 3173 AS-POLS 3(3,0)
Southern Politics: PR: POS 2041 or C.I. Study of southern politics past and present. Emphasis on factors effecting changes in the region and the states. Southern and national relationship examined.

POS 3233 AS-POLS 3(3,0)
Public Opinion: PR: Junior standing or C.I. Nature, impact and development of public opinion, emphasizing the influence of race, gender, age, and class on opinions, voting, and political behavior.

POS 3235 AS-POLS 3(3,0)
Mass Media and Politics: PR: POS 2041 or C.I. Influence of media on campaigns, public officials, public opinion, the
definition of political news, and selected public policies.
POS 3253 AS-POLS 3(3,0)
Contemporary Revolution and Political Violence: Theories and cases of revolutionary change and political violence in the contemporary world.

## POS 3273 AS-POLS 3(3,0)

Voting and Elections: Theoretical and substantive inquiry into U.S. electoral system; includes focus on voter behavior as well as national and state electoral systems.

## POS 3413 AS-POLS 3(3,0)

The American Presidency: PR: POS 2041 or C.I. Examination of historical and contemporary role of the presidency, including the presidential selection process and the office's evolution in status, powers, administrative respons-ibilities, leadership, and decision-making.

POS 3424 AS-POLS 3(3,0)
Congress and the Legislative Process: PR: POS 2041 or C.I. Examination of the Congress as an institution undergoing dynamic change; emphasis upon recruitment of legislators, institutional and informal rules, the committee system, legislative procedures.

## POS 3443 AS-POLS 3(3,0)

Political Parties and Processes: PR: POS 2041 or C.I. In-depth study of the American political party system in the context of changing American politics; topics include development, organization, reforms, legislative and executive roles.

## POS 3463 AS-POLS 3(3,0)

Interest Groups: PR: POS 2041 or C.I. Analyzes the non-electoral behavior of economics, ideological, and citizen groups; political action committees; and the proliferation of interest organizations over the past quarter century.

Cultural Pluralism and Law: PR: POS 2041. A case law approach to the legal and constitutional aspects of historical and current issues facing minorities in the U.S.

POS 3703 AS-POLS 3(3,0)
Scope and Methods of Political Science: PR: Junior standing or C.I. The scope and methodology of political analysis. Extensive examination of the discipline, research design and methodology.

POS 3949 AS-POLS 0(0,8)
Cooperative Education in Political Science: PR: Departmental permission required before registering. Cooperative education experience in political science. May be repeated. Graded S/U.

## POS 4142 AS-POLS 3(3,0)

Metropolitan Politics: Analysis of political patterns, processes, and issues in American communities. Intergovernmen-tal relations and structural and political arrangements in the existing and emerg-ing metropolitan areas.

POS 4206 AS-POLS 3(3,0)
Political Psychology: The psychological analysis of political behavior, with emphasis on the individual rather than the political system; includes political attitudes and communication, leadership, and personality influences on politics.

## POS 4246 AS-POLS 3(3,0)

Political Socialization: PR: POS 2041 or C.I. Analysis of recruitment and socialization processes. Identification of the agents and processes of political socialization in national and cross-cultural contexts.

POS 4265 AS-POLS 3(3,0)
Power and Policy in the U.S.: PR: POS 2041 or C.I. Examination of the bases of political power in the U.S. In-depth study of socio-economic political linkages in the policy-making process.

POS 4284 AS-POLS 3(3,0)
Judicial Process and Politics: Study of the formal and informal judicial process. Legal culture, bureaucratic model, judicial recruitment and outputs, comparative judicial behavior.

POS 4412 AS-POLS 3(3,0)
Presidential Campaigning: PR: C.I. Introduces the process of candidate selec-tion, convention behavior, actual cam-paign process and the transition of power.

## POS 4603 AS-POLS 3(3,0)

American Constitutional Law: PR: POS 2041 or C.I. Development of American federalism and national power, commerce clause, and nationalization of the economy.

American Constitutional Law II: PR: POS 2041 or C.I. Development of civil liberties and civil rights in the American federal system.

POS 4622 AS-POLS 3(3,0)
Politics and Civil Rights: PR: Junior standing or C.I. Examination of civil rights issues in the context of political behavior, political institutions and public policy since 1865 .

POS 4941L AS-POLS 3-9(0,3-9)
Political Science Internship: PR: C.I. Internship working with the national, state, county or municipal government. Assignments with selected civic organizations, elected or appointed officials. May be repeated for credit.

POT 3204 AS-POLS 3(3,0)
American Political Thought: From its sources to the 20th century, including liberalism, puritanism, the Federalist, the rise of industrialism, resulting social movements, modern variations.

POT 3302 AS-POLS 3(3,0)
Modern Political Ideologies: A study of modern ideologies since the French Revolution including liberalism, conservatism, capitalism, nationalism, fascism and anarchism.

POT 4003 AS-POLS 3(3,0)
Political Theory: PR: POS 2041 or C.I. Examination of various normative approaches to the study of political science, stressing contemporary developments in the field.

POT 4025 AS-POLS 3(3,0)
Ancient, Medieval and Early Modern Political Philosophy: Study of the development of political and social ideas in western thought from early Greece through the 17th century.

## POT 4054 AS-POLS 3(3,0)

Modern Political Philosophy: Study of the development of political and social ideas from the 18th century to the present. May be taken independently of POT 4045 (Ancient, Medieval and Early Modern Political Philosophy).

## POT 4066 AS-POLS 3(3,0)

Contemporary Political Theory: PR: Junior standing or C.I. Study of the contemporary debate about the status of rights, utilitarism, and liberalism, and communitarian Marxist, libertarian, and feminist critiques of liberalism.

## POT 4305 AS-POLS 3(3,0)

The State, Society, and the Individual: PR: Junior standing or C.I. The relationship between the state, society, and the individual by discussing the works of major authors from Adam Smith to Robert Axelrod.

Contemporary Democratic Theory: PR: POS 2041 or C.I. Study of democratic theories, emphasizing liberal democracy and its critics, elitist theories, participatory democracy, citizen participation, and relevance of empirical research to democratic theory.

POT 4331 AS-POLS 3(3,0)
Utopia/Disutopia: PR: Junior standing or C.I. Examines political issues, such as justice, economic distribution and social organization by exploring both classic and contemporary utopias and disutopias.

## POT 4414 AS-POLS 3(3,0)

Marxist Political Theory: Survey of Marx \& Engels and other thinkers, exposing the theoretical underpinnings of nations and groups who have adapted Marxist principles for governance.

## POT 4632 AS-POLS 3(3,0)

Religion and Politics: PR: Junior standing. Institutional and individual relationship of religion and politics including globalization, fundamentalism, secularization, American exceptionalism, political behavior, and the religious origins of current secular concepts.

PPE 3003 AS-PSYCH 3(3,0)
Personality Theory: PR: PSY 2013. A survey of theory and research on the development of personality characteristics.

PPE 5055 AS-PSYCH 3(3,0)
Personality Theories: PR: G.A. or C.I. Critical theoretical models of personality development with applications to counseling, psychotherapy and psychological assessment.

## PSB 2442 AS-PSYCH 3(3,0)

Drugs and Behavior: PR: PSY 2013. Effects of certain drugs upon the nervous system, behavior, and society. Causes of drug abuse and impact on mental health.

PSB 3002 AS-PSYCH 3(3,0)
Physiological Psychology: PR: PSY 2013. The physiological basis of behavior, emphasizing the relationship between the nervous system and behavior.

PSB 3441 AS-PSYCH 3(3,0)
Psychobiological Aspects of Drugs: PR: PSY 2013. An advanced course designed for web instruction. Focuses on pharmacology, neurophysiology and neuroanatomy as the foundation of understanding behavior and social consequences of drug use.

## PSB 3842 AS-PSYCH 3(3,0)

Sleep and Dreams: PR: PSY 2013. An overview of the psychological and physiological foundations
of sleep and dreams. Concrete facts and disturbances of sleep. Cultural perspectives on, and contemporary applications of dreams.

## PSB 4013C AS-PSYCH 4(3,2)

Neuropsychology: PR: PSB 3002. Study of brain function, with particular empha-sis on human behavior. Lecture/Lab.

PSB 4103C AS-PSYCH 3(2,2)
Biofeedback Applications: PR: PSY 2013, PSB 3002 and C.I. Introduction to theory, instrumentation, research and clinical application of biofeedback. Training in use of biofeedback equipment. Lecture/Lab.

PSB 4422 AS-PSYCH 3(2,2)
Brainwaves and Behavior: PR: PSB 3002. Review of research and clinical practice in the use of computerized EEG for treatment of selected physical and psychological disorders.

PSB 5005 AS-PSYCH 3(3,0)
Physiological Psychology: PR: PSB 3002 or C.I. An advanced survey of the physiological basis of behavior, emphasizing the relationship between the nervous system and behavior.

## PSC 1121 AS-PHYS 3(3,0)

Physical Science: PR: MAC 1105 or MGF 1106. Fundamental laws of mechanics, heat, waves, electricity, magnetism; chemical processes and equations, properties of gases, liquids, solids, solutions.

PSC 1121H AS-PHYS 3(3,0)
Honors Physical Science: PR: Honors college, MAC 1105 or MGF 1106. PSC 1121 with Honors-level content.

PSC 1121L AS-PHYS 1(0,2)
Physical Science Lab: CR: PSC 1121. Experiments to apply the scientific method to observation and analysis in mechanics, heat, light, electricity and magnetism, chemical and physical transformations.

PSY 2013 AS-PSYCH 3(3,0)
General Psychology: A survey of the basic principles, theories, and methods of contemporary psychology, including the study of human diversity.

## PSY 2013H AS-PSYCH 3(3,0)

Honors General Psychology: Same as PSY 2013 with honors-level content.
PSY 2023 AS-PSYCH 1(1,0)
Careers in Psychology: PR: PSY 2013. An examination of various career oppor-tunities in Psychology, including educa-tional entry requirements, and related professional issues. Grades "S" or

Statistical Methods in Psychology: PR: STA 2014C or STA 2023. Standard scores, confidence intervals, sampling distributions, hypothesis testing, correlation and regression as applied to research in psychology.

## PSY 3214C AS-PSYCH 4(3,2)

Research Methods in Psychology: PR: PSY 2013 and STA 2014C or STA 2023. Investigation of experimental designs and research methods utilized in psychology. Laboratory outcomes will be statistically analyzed and reported in APA format.

PSY 3302 AS-PSYCH 3(3,0)
Psychological Measurement: PR: PSY 2013 and STA 2014C or STA 2023. A study of the theory underlying psycholog-ical tests and measurements procedures, including reliability, validity, and item analysis.

PSY 3624 AS-PSYCH 3(3,0)
Parapsychology: PR: PSY 2013. An examination of the history and develop-ment of research on paranormal pheno-mena, with special emphasis on recent developments in extrasensory perception and psychokinesis.

## PSY 3951 AS-PSYCH 1-9(3-30)

Undergraduate Field Work: PR: Senior standing and C.I. Placement in a com-munity agency for supervised experience in applications of psychology to commun-ity problems. May be repeated for credit. Graded S/U.

PSY 4025 AS-PSYCH 3(3,0)
The Psychology of Art: PR: PSY 2013 and ARH 205X. Discussion of the psychological perspectives on art to gain a greater understanding and enhanced appreciation for the process and products of creativity.

## PSY 4213L AS-PSYCH 3(0,3)

Advanced Research Methods Statistical Lab: PR: PSY 3214C and CR: PSY 4215C. Data analysis and research reporting procedures. Experience in analyzing and explaining the methods and results used in research reports.

PSY 4215C AS-PSYCH 4(3,2)
Advanced Research Methods in Psychology: PR: PSY 3214C. Design, analysis, and interpretation of complex research projects in psychology.

PSY 4302C AS-PSYCH 3(1,4)
Advanced Psychological Measurement: PR: or CR: PSY 3302. Application of the theory underlying
psychological test and measurement procedures, including reliability, validity, and item analysis.

## PSY 4604 AS-PSYCH 3(3,0)

History and Systems of Psychology: PR: EXP 3404 and PPE 3003. Historical development of psychology, with empha-sis on classical theoretical positions.

PSY 5605 AS-PSYCH 3(3,0)
History and Systems of Psychology: PR: Acceptance to Clinical Psychology Ph.D. program or C.I. An examination of modern American psychology from its origins in the late 19th century to the present time. This course is intended for the Ph.D. in Clinical Psychology; in certain instances graduate students in other programs may enroll.

PUP 3204 AS-POLS 3(3,0)
Environmental Politics: An examination of politics and policy-making concerning issues of conservation, pollution and development of land, air, and water resources.

PUP 3314 AS-POLS 3(3,0)
Minorities in American Politics: Histor-ical and contemporary role of minority groups in the American political process, including an examination of their elector-al significance and relevant legislative, executive, and judicial policies.

PUP 3508 AS-POLS 3(3,0)
Space Studies: PR: Junior standing or C.I. Multidisciplinary overview of space studies, providing familiarity with some technical aspects as well as the relation-ship between technical and public policy considerations.

PUP 4003 AS-POLS 3(3,0)
American Public Policy: PR: POS 2041 or C.I. Policy formation, implementation and evaluation, with a focus upon con-temporary American problems, including
the malapportionment of societal power and social conflict.
PUP 4323 AS-POLS 3(3,0)
Women and Politics: An examination of demands for change in the social, political, and economic status of women and the policy response of the system.

## PUP 4404 AS-POLS 3(3,0)

Education and Politics: PR: Junior standing or C.I. Western education and the connection between citizenship and education, education funding, and the politics of education reform.

## PUP 4503 AS-POLS 3(3,0)

Government and Science: PR: C.I. Examination of interface between science and government. Focus is upon govern-mental support for science, social accountability, and the role of the scien-tist-policy maker in comparative context.

Space Policy: An examination of the politics and policy-making involved with the US space program in the context of domestic demands and other international space programs.

PUP 4602 AS-POLS 3(3,0)
Politics of Health: PR: C.I. Analysis of public health policies. Primary focus upon political processes, policymakers, and interest group interventions, including consumers and policy outcomes. Comparative health policies.

PUP 4931 AS-POLS 3(3,0)
Topics in Public Policy: Intensive anal-ysis of a current policy problem. Sample topics include education, growth manage-ment, housing, affirmative action, wel-fare, and transportation. May be repeated once.

## PUR 3100 AS-COMM 3(2,1)

Writing for Public Relations: PR: Majors only, Grammar Proficiency Examination, and typing test. Develop-ment of skills in writing for public relations.

## PUR 4000 AS-COMM 3(3,0)

Public Relations: Principles and practice of Public Relations including techniques, research tools publicity, and management.

PUR 4110C AS-COMM 3(1,3)
Public Relations Publications: PR: ENC 2210 or PUR 3100 or JOU 2100. Basic principles and techniques of desktop production of public relations publications.

PUR 4800 AS-COMM 3(3,0)
Public Relations Campaigns: PR: Majors only, PUR 4000 or C.I. Planning and execution of public relations campaigns for profit and non-profit organizations.

## PUR 4801 AS-COMM 3(3,0)

Public Relations Case Studies: PR: PUR 4000 or C.I. Discussion and analysis of public relations cases highlighting the application of PR theory to advance organizational goals
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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

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## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

## RAT 3001 HPA-HP 3(3,0)

Introduction to Radiation Oncology: PR: Acceptance into program. An over-view of radiation therapy treatment pro-cedures and patient care considerations.

## RAT 3241 HPA-HP 3(3,0)

Clinical Radiobiology: Application of the principles and theories of radio-biology to the clinical practice of radiation therapy.

RAT $3242 \quad$ HPA-HP 2(2,0)
Oncologic Pathology: PR: Acceptance to program. Study of neoplastic diseases, in-cluding causative factors, characteristics, histologic grading, staging and treatment.

RAT $3614 \quad$ HPA-HP 2(2,0)
Radiation Therapy Physics I: PR: Acceptance to program. Study of radia-tion production, properties, interactions, measurement, and protection.

## RAT 4247 HPA-HP 3(3,0)

Radiation Oncology I: Methods of radiation therapy treatment of malignant conditions of the skin, oral cavity, pharynx, sinuses, thyroid, digestive and respiratory systems.

RAT 4248 HPA-HP 3(3,0)

Radiation Oncology II: Methods of treatment of malignant conditions of the nervous system, eye, reproductive system, urinary system, connective tissue, and lympho-reticular system.

## RAT 4619C HPA-HP 4(3,3)

Radiation Therapy Physics III: PR: RAT 4618. Study of treatment planning principles and techniques, including mul-tiple beam therapy, rotation therapy, arc therapy, and irregular field techniques.

## RAT 4804L HPA-HP 5(0,20)

Clinical Education I: PR: RTE 3000, 3111, 3528, 3684, 3804, 3457, 3549, or C.I. Supervised clinical practice in patient care and orientation to radiation therapy simulation, and treatment planning and delivery procedures.

## RAT 4814L HPA-HP 6(0,24)

Clinical Education II: PR: RAT 4804. Supervised clinical practice in patient care, education, simulation, treatment planning and delivery and utilization of treatment units.

## RAT 4824L HPA-HP 6(0,24)

Clinical Education III: PR: RAT 4814. Continued supervised clinical practice in patient care, education, simulation, treatment planning and delivery and utilization of treatment units.

RED 3012 ED-IP 3(3,0)
Basic Foundations of Reading: PR: Junior standing or C.I. Introduction to reading: principles, procedures, and current practices. Study of specific techniques and materials for word attack and comprehension.

RED 3310 ED-IP 3(3,0)
Emerging Literacy: PR: LAE 3504, Admission to program, or C.I. Investi-gates emergence of reading/writing processes during preschool, kindergarten, and early first grade years.

RED 4311 ED-IP 3(3,0)
Development of Literacy: PR: LAE 3504 and RED 3310. Methods for development of reading and writing process during primary (first - third) grades.

RED 4519 ED-IP 3(3,1)
Diagnostic and Corrective Reading Strategies: PR: RED 3012 or C.I. and admission to Phase II. An investigation of the needs of individual learners in reading instruction. Organization and techniques for promoting optimum reading growth. Concurrent school experiences required.

RED 5147 ED-IP 3(3,0)
Developmental Reading: PR: EDG 4323. Principles, procedures, organization, and current practices in the elementary reading program. Materials and methods of instruction.

RED 5514 ED-IP 3(3,1)

Classroom Diagnosis and Development of Reading Proficiencies: PR: RED 5147 or equivalent. Classroom diagnosis and corrective teaching in reading; instruc-tional materials. Case study required.
REE 3043 BA-FIN 3(3,0)

Fundamentals of Real Estate: PR: Junior standing. Emphasis placed upon the application of basic tools of econo-mics, finance, and marketing to solve private and public sector real estate prob-lems. Not usable for credit by Finance majors.

REE 4103 BA-FIN 3(3,0)
Real Estate Appraisal and Valuation: PR: FIN 3403. Focus on the fundamentals of real estate valuation utilizing tools of financial and economic analysis.

REE 4204 BA-FIN 3(3,0)
Real Estate Finance: PR: FIN 3403. Focus on the fundamentals of real estate finance utilizing tools of financial and economic analysis.

REE 4303 BA-FIN 3(3,0)
Real Estate Investment Analysis: PR: FIN 3403. Focus on real estate decision-making in the private sector utilizing tools of financial and economic analysis.

REE 4433 BA-FIN 3(3,0)
Real Estate Law: PR: Junior standing. An analysis of real estate law with emphasis on Florida statutes and case law.

REL 2300 AS-PHIL 3(3,0)
World Religions: Basic features and historical background of Confucianism, Taoism, Hinduism, Buddhism, Judaism, Christianity, and Islam.

## REL 3162 AS-PHIL 3(3,0)

Healing: Culture, Art and Praxis: PR: Junior standing. A theory of the culture-specific nature of illness, including soul loss, spirit intrusion and the medicalization of deviance.

RET 3026C HPA-HP 4(3,3)
Introduction to Respiratory Care.: PR: Admission to the professional upper-division Respiratory Therapy Program. Fundamental respiratory principles and practices will be studied. Introduction to the profession and basic methods are covered. Lecture and lab.

RET 3174 HPA-HP 3(3,0)
Pediatric Respiratory Care: PR: RET 3026. The study of childhood respiratory diseases, congenital problems, infections, metabolic disorders, and AIDS.

RET 3264C HPA-HP 3(2,3)
Mechanical Ventilation: PR: RET 3026C. Function and use of mechanical ventilators, patient
evaluation methods. All forms of ventilatory support will be studied. Lecture and laboratory.

## RET $3483 \quad$ HPA-HP 1(1,1)

Respiratory Disease Assessment: PR: RET 3026C. Physical examination of the chest, demonstrating equipment use, methods and theory. Chest radiography will be extensively covered. Lecture and demonstration.

## RET 3484C HPA-HP 4(3,3)

Cardiopulmonary Physiology: PR: PCB 3703C. Normal ventilation, lung mechanics, pulmonary circulation, diffusion, and blood gases, with an emphasis toward diagnostic cardiology.

RET 3874 HPA-HP 5(1,16)
Clinical Practice I: PR: C.I. Basic equipment and patient care. IPPB therapy. Cleaning sterilization and maintenance procedures. Suction techniques.

## RET $3875 \quad$ HPA-HP 8(1,24)

Clinical Practice II: PR: C.I. Patient care with advanced respiratory equipment. Tracheostomy care. Introduction to card-iopulmonary resuscitation. Introduction to critical care units. Advanced life support techniques and equipment.

RET 4034 HPA-HP 3(3,0)
Problems in Patient Management: PR: RET 3484. Problem-oriented approach to the treatment of chronic and acute respiratory disorders. Computer-based clinical simulations are utilized. Emphasis on patient centered care planning.

RET 4244 HPA-HP 3(3,0)
Life Support Systems: PR: RET 3026C. Lecture-laboratory, measures supporting critically ill patients; intubation, airway maintenance, arterial and venous lines, post-operative care. Cardiac output determination, electrocardiography, intra-aortic balloon pumping covered.

## RET $4284 \quad$ HPA-HP 3(3,0)

Cardiopulmonary Diagnostics I: PR: RET 4244C. Non-invasive cardiac diagnostics, including echocardiography, nuclear cardiology, and stress testing.

## RET $4285 \quad$ HPA-HP 3(3,0)

Cardiopulmonary Diagnostics II: PR: RET 4244C and RET 4284C. Invasive cardiac diagnostic and therapeutic mea-sures, including cardiac catheterization, PTCA, streptokinase use, and heart surgery.

RET 4414C HPA-HP 4(3,3)
Pulmonary Function Studies: PR: RET 3026C. Detailed procedures and tests to provide information for diagnosis of pulmonary disease. Lecture-laboratory.

Vascular Ultrasound: Study of application of ultrasound in the diagnosis of vascular diseases. Includes doppler and color flow doppler examination of arterial and venous systems.

## RET $4443 \quad$ HPA-HP $\mathbf{4}(3,3)$

Advanced Cardiac Ultrasound: PR: RET 4284 or C.I. Study of advanced applications of ultrasound in the diagnosis of cardiac abnormalities. Two-dimensional echo, conventional doppler, and color doppler covered.

## RET 4503 HPA-HP 3(3,0)

Chest Medicine: PR: RET 3026. Disease states treated medically in conjunction with one or more modalities of respiratory therapy.

RET $4715 \quad$ HPA-HP 3(3,0)
Neonatal Medicine: PR: RET 3714C or C.I. Fetal development, prenatal physiology, gas transport in the fetus and newborn. Congenital abnormalities, infections, diseases of the newborn. Resuscitation of the neonate.

RET 4876 HPA-HP 8(1,24)
Clinical Practice III: PR: RET 3875. Care of patients with more complex diseases. Pulmonary function studies. Pediatric and neonatal critical care. Echo and cardiac catheterization. Emergency and trauma.

## RET $4934 \quad$ HPA-HP 2(2,0)

Selected Topics in Respiratory Therapy: PR: C.I. Current topics of adult critical care, as they apply to the advanced study of respiratory therapy.

RET $5910 \quad$ HPA-HP 3(3,0)
Research Methods in Cardiopulmonary Physiology: Introduction to methods used in scientific and medical research in cardiopulmonary
physiology. Literature review, experimentation, and data analysis.

## RMI 3011 BA-FIN 3(3,0)

Principles of Risk and Insurance: PR: FIN 3403. Emphasis is on insurance as a risk-handling device, with attention given to risk assumption, risk avoidance, and loss prevention.

RTE $3000 \quad$ HPA-HP 3(3,0)
Introduction to Radiologic Sciences: PR: Admission to Radiologic Sciences program. Orientation to career field, radiation protection, principles and procedures of medical imaging and radiation therapy.

## RTE 3111C HPA-HP 2(1.5,1.5)

Introduction to Patient Care: PR: Acceptance to the program. Provides the student with fundamentals of patient care methods related to radiography.

Advanced Patient Care: PR: RTE 3111C or C.I. Study of advanced patient care concepts and techniques associated with computed tomography, magnetic resonance imaging, mammography, pediatrics and interventional procedures.

RTE 3308 HPA-HP 3(3,0)
Medical Physics: PR: RTE 3684C or C.I. Study of radiation production, character-istics, detection and measurement, and protection, including barrier thickness calculation and shielding.

## RTE 3418C HPA-HP 3(2.5,1.5)

Principles of Radiographic Exposure I: An introduction to the technical variables influencing radiographic and fluoroscopic image quality, including equipment con-siderations, prime exposure factors, image receptors, and accessory exposure devices.

RTE 3457C HPA-HP 3(2.5,1.5)
Principles of Radiographic Exposure II: PR: RTE 3418 or C.I. Study of technical and photographic processing variables influencing conventional, radiographic and digital image quality.

## RTE 3503C HPA-HP 3(2,3)

Radiographic Procedures I: PR: Admission to the program. Provides fundamental knowledge of radiographic positioning, equipment manipulation, and quality evaluation of radiographic studies of the chest, abdomen, routine contrast studies, and the upper extremity.

RTE 3513C HPA-HP 3(2,3)
Radiographic Procedures II: PR: RTE 3503C or C.I. Continuation of radiographic positioning, equipment manipulation, and quality evaluation of radiographic studies of the shoulder, bony thorax, lower extremity, vertebral column, cranium, and facial bones.

## RTE 3684C HPA-HP 2(2,0)

Physics of Image Production: PR: College Physics II. Physics of diagnostic radiology, including radiation production, physical principles of generator operation, and characteristics of electromagnetic radiation.

RTE 3804 HPA-HP $\mathbf{4 ( 0 , 1 6 )}$
Clinical Education I: PR: RTE 3111C or C.I. Supervised clinical practice in radiographic procedures, radiation protection, patient care, equipment.

RTE 4202 HPA-HP 3(3,0)
Methods in Radiology Management: Concepts of radiology, department man-agement, including principles, personnel management, evaluation and improve-ment techniques, budgeting, financial considerations and legal aspects, and JCAH quality assurance specifications.

RTE 4206 HPA-HP 3(3,0)

Leadership in Radiological Sciences: PR: Senior level status in RS major or C. I. Study of the theories, principles and skills needed to function in a leadership position in Radiologic Sciences.

## RTE 4209 HPA-HP 2(0,8)

Radiological Administrative Practice: A directed practice in the management of a radiology department, with application of theory and methodology.

## RTE 4385 HPA-HP 1(1,0)

Radiobiology: PR: RTE 3308C. A study of the effects of ionizing radiation on biologic systems. The responses at the cellular and total organism level are investigated.

RTE 4473 HPA-HP 3(3,0)
Quality Improvement: PR: Registered technologist or Senior standing. The study of quality improvement and quality control from the perspective of radiology services.

## RTE 4563 HPA-HP 2(2,0)

Special Radiographic Procedures: PR: RTE 3513C or C.I. Principles of nonvascular invasive procedures, including myelography, cholangiography, hysterosalpingography, and bronchography.

RTE 4573 HPA-HP 3(3,0)
Advanced Imaging Modalities: PR: RTE 3563 or C.I. A study of the physical principles and applications of computed tomography, digital imaging, interventional radiography, mammography, ultrasound, magnetic resonance imaging, and nuclear medicine.

RTE 4762 HPA-HP 3(3,0)
Anatomy for the Medical Imager: A study of the normal anatomical structures and interrelationships of structures as demonstrated in a radiographic and cross-sectional imaging reference.

## RTE $4782 \quad$ HPA-HP 2(2,0)

Pathophysiology: PR: C.I. The study of
radiologic science in the diagnosis and treatment of disease.
RTE 4814L HPA-HP 5(0,20)
Clinical Education II: PR: RTE 3804. Supervised clinical practice in radio-graphic/fluoroscopic procedures with emphasis on examinations of the chest, abdomen, extremities and shoulder girdle.

RTE 4824L HPA-HP 6(0,24)
Clinical Education III: PR: RTE 4814. Supervised clinical practice in radiographic/fluoroscopic procedures with emphasis on examinations of the pelvis, thoracic cavity, vertebral column and portable and surgical radiography.

RTE 4834 HPA-HP 4(0,16)

Clinical Education IV: PR: RTE 4824. Supervised clinical practice in radio-graphic/fluoroscopic procedures with emphasis on examinations of the cranium, facial bones, and special procedures.

## RTE 4844 HPA-HP $\mathbf{4 ( 0 , 1 6 )}$

Clinical Education V: PR: RTE 4834. Supervised clinical practice in radiographic/fluoroscopic procedures with emphasis on surgical and special procedure examinations.

RTE $4854 \quad$ HPA-HP 2(0,8)
Advanced Clinical Practicum: PR: RTE 4824. Supervised clinical experience and/or practice in computed tomography, interventional, vascular, and magnetic resonance imaging.

RTE 4903 HPA-HP 2(0,8)
Directed Study in Radiologic Education: PR: EVT 3371 or EDG 4323 or C.I. Directed activity in classroom instruction in radiologic technology.

RTV 2102 AS-R/TV 3(3,0)
Writing for the Electronic Media: PR: ENC 1102, RTV Major. Practical experience in writing for various electronic media including radio, television, corporate, and digital media. Scripting requirements, writing styles and creative applications.

RTV 3000 AS-R/TV 3(3,0)
Foundations of Broadcasting: Nature of the media, the mechanics of operation, history, economics, programming, and internal and external control.

RTV 3200 AS-R/TV 3(3,0)
Production Fundamentals and Aesthetics of Electronic Media: PR: RTV 3000 or C.I. Technical and creative concepts of analog and digital electronic media production for radio, television, and multimedia delivery systems.

RTV 3210 AS-R/TV 4(1,3)
Radio Production: PR: Majors only, RTV 3200 or C.I. The production of music (live and recorded), talk, interview, discussion, sports, and documentary, including performance (talent and announcing) and direction.

## RTV 3223 AS-R/TV 3(2,1)

Lighting for Video: PR: Majors only, RTV 3200. Basic lighting techniques for both studio and location, single and multiple-camera video production.

RTV 3228C AS-R/TV 4(4,3)
Studio Television Production: PR: RTV 3200 and RTV major. All aspects of analog and digital television studio production including audio mixers, microphones, tape recorders, cameras, video switchers, lighting, and electronic graphics

RTV 3231C AS-R/TV 4(1,3)

Broadcast Announcing and Perform-ance: PR: RTV Majors only, RTV 3210 or RTV 3220 or RTV 3260C or RTV 4270. Communication problems on camera and microphone. Development of performance skills in announcing, interviewing, narrating, and reporting.

RTV 3260C AS-R/TV 4(4,3)
Single Camera Video Production and Editing: PR: RTV 3200, RTV Major. Technical and aesthetic requirements of analog and digital single-camera video production and editing, including techni-ques for electronic news gathering (ENG) and electronic field production (EFP).

RTV 3263C AS-R/TV 3(3,3)
Advanced Video Post-Production: PR: RTV 3260C, RTV Major. Advanced post-production techniques for analog and digital video, including A/B roll time code editing, digital video effects, electronic graphics, and non-linear video editing systems.

RTV 3280C AS-R/TV 3(3,1)
Production of Interactive Multimedia: PR: Completion of School Grammar and Keyboard Proficiency tests. Practice and production of electronic interactive multimedia for the broadcast industry.

## RTV 3301 AS-R/TV 3(3,0)

Electronic Journalism I: PR: RTV 2100, RTV Major. Newswriting and newsgathering skills and strategies and their accompanying ethical considerations for analog and digital delivery of broadcast journalism.

RTV 3304 AS-R/TV 3(3,0)
Electronic Journalism II: PR: RTV 3301, RTV 3260C, and RTV Major. Newswriting and newsgathering strategies learned in RTV 3301 are integrated into a newsgathering context for actual production of analog and digital radio and television news packages.

RTV 3501 AS-R/TV 3(1,2)
Broadcast Copywriting: PR: RTV Majors only, Grammar Proficiency Examination and School Typing Exam. Preparation of written public service and commercial copy for radio and television.

RTV 3810 AS-R/TV 3(2,1)
Broadcast Promotion: PR: RTV Majors only, RTV 3200. Examination of techniques that stations use to keep listeners and viewers and to attract new ones. Use of advertising and merchandising.

RTV 3942 AS-R/TV 1(0,3)
Television Practicum: PR: RTV Majors only, RTV 3200 and C.I. Primarily an activity course. Student will serve in some position of responsibility for UCF Weekly News or other TV activity. Can be repeated.

Television Directing: PR: RTV Majors only, RTV 3200 and RTV 3260C. Preparation and direction of programs, with emphasis on dramatic values of composition.

## RTV 4211C AS-R/TV 3(3,3)

Audio Production II: PR: RTV 3210 and RTV Major. Creating the sound design and multiple track recording in the analog and digital domain

## RTV 4270 AS-R/TV 3(2,1)

Radio Production and Programming: PR: RTV Majors only, RTV 3200 or C.I. The study and production of current radio formats and their effects on today's radio listener.

RTV 4280C AS-R/TV 3(3,3)
Webcasting I: PR: RTV 3280C and RTV Major. Presentation of broadcast material on the web. Integrates the distribution of radio, television, and web content.

RTV 4281C AS-R/TV 3(3,3)
Webcasting II: PR: RTV 4280C and RTV Major. Production of digital media in conjunction with other RTV production activities to repurpose broadcast content for delivery on the web

RTV 4320C AS-R/TV 3(1,3)
Television News: PR: RTV 3304, RTV Major. Production of a weekly campus newscast. Daily newsgathering and production decisions are conducted by students under the advisement of the instructor functioning as news director.

## RTV 4403 AS-R/TV 3(3,0)

Radio, Television and Society: PR: RTV Majors only, RTV 3000. A study of the impact of electronic media upon the habits, customs, and thinking of our times. Considerations of internal media problems.

RTV 4503 AS-R/TV 3(3,0)
Sports Programming on Broadcast and Cable: PR: RTV 3000 or C.I. An examination of the factors that determine how sporting events are constructed for programming on broadcast stations and cable systems.

RTV 4505 AS-R/TV 3(3,1)
Program Issues for TV \& Motion Pictures: PR: RTV 3000 or FIL 3400. An examination of program development theories, strategies and issues in the television and motion picture industries.

RTV 4700 AS-R/TV 3(3,0)
Regulation of Broadcasting: PR: RTV Majors only, RTV 3000. Federal, state, local and self-regulatory agencies and practices which govern electronic media.

RTV 4800 AS-R/TV 3(3,0)

Broadcast Management: PR: RTV Majors only, RTV 4700. Examination of broadcast management problems in station operations at local, regional, and national levels.

RUS $1120 \quad$ AS-LANG $\mathbf{4}(4,1)$
Elementary Russian Language and Civilization I: Introduces the student to Russian culture through the major lan-guage skills: listening, speaking, reading and writing. Open only to students with no experience in this language.

RUS 1121 AS-LANG 4(4,1)
Elementary Russian Language and Civilization II: PR: RUS 1120 or equivalent. Continuation of RUS 1120.

RUS 2210 AS-LANG 3(3,0)
Intensive Russian Conversation: PR: One year of Russian or equivalent. Prac-tical use of the language, leading toward fluency and correctness in speaking.

RUS 2230 AS-LANG 3(3,1)
Intermediate Russian Language and Civilization I: PR: RUS 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.

RUS 2231 AS-LANG 3(3,1)
Intermediate Russian Language and Civilization II: PR: RUS 2230 or equivalent. Continuation of RUS 2230, with emphasis on Russian civilization.

RUS 3240 AS-LANG 3(3,0)
Russian Conversation: PR: RUS 2231 or equivalent. Development of skills in conversation and comprehension through practice.

RUS 3760 AS-LANG 3(3,0)
Advanced Russian Oral Communication: PR: RUS 2231 or equivalent. Voc-abulary building with systematic training in diction and locution. Speeches and oral presentations as well as production and delivery of real-life dialogues.
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## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

SCE 3310 ED-IP 3(3,0)
Teaching Science in Elementary School: PR: Junior standing or C.I. Selected concepts; organizing for instruction; techniques; evaluation procedures.

SCE 4023 ED-IP 3(3,0)
Teaching Science and Technology to Young Children: Provides the knowledge and skills needed to plan and implement a discovery science/design technology program for young children in an integrated, interactive curriculum.

SCE 4360 ED-IP 4(3,2)
Science Instructional Analysis: PR: EDG 4323 or C.I. Course objectives for a school curriculum and methods and materials for the middle grades and high school.

SCE 5716 ED-IP 3(3,0)
Methods in Elementary School Science: PR: EDG 4323. Organization of instruction in elementary school science including methods, evaluation, materials, strategies, and current practices.

SCE 5825 ED-IP 3(3,0)
Space Science for Educators: PR: Senior standing or C.I. Introduction to space science, manned space flight, and space education curriculum.

Strategies for Success in College: This course is designed to address the development of life-skills necessary for the contemporary student to appropriately adjust to college requirements that lead to self-mastery and the total concept of lifetime wellness.

SLS 2311 HPA-M\&M 1(0,2)
Overview of Select Medical Careers: An overview of the pre-health professions process for careers in medicine, dentistry, veterinary medicine, optometry, pharm-acy, podiatry, and chiropractic. Graded "S" or "U."

## SOP 2772 AS-PSYCH 3(3,0)

Sexual Behavior: PR: PSY 2013. Physiological, social, and clinical aspects of human sexuality.
SOP 3004 AS-PSYCH 3(3,0)
Social Psychology: PR: PSY 2013. Effects of social situations and social variables on the behavior of individuals.

## SOP 3723 AS-PSYCH 3(3,0)

Cross Cultural Psychology: PR: PSY 2013. Exploration of theories, issues, and research concerned with the psychologi-cal understanding of under-represented minority groups.

SOP 3724 AS-PSYCH 3(3,0)
The Psychology of Racial Prejudice: PR: PSY 2013. Examination of literature relating to prejudice toward ethnic groups; effects of racism on individuals, development and maintenance of prejudice, and possible ways to reduce prejudice.

## SOP 3742 AS-PSYCH 3(3,0)

Psychology of Women: PR: PSY 2013. Examination of the psychological impact of changing sex roles on women in modern society. Topics include child rearing, working women, and sex differences in personality and cognition.

SOP 3784 AS-PSYCH 3(3,0)
Psychology of Diversity : PR: PSY 2013. A review of the contributions of psychology to the understanding of human diversity related to ethnic background, gender, sexuality, and belief systems.

## SOP 5059 AS-PSYCH 3(3,0)

Advanced Social Psychology: PR: SOP 3004 and graduate status, or C.I. The major findings and theories in social psychology including an in-depth review of relevant research.

## SOW 3104 HPA-SOWK 3(3,0)

Assessing I: Human Development: Skill development in assessing "person-in-environment" throughout life cycle. Study interaction of bio-psychosocial, cultural, and systemic influences on human functioning. Open to non-majors and pending social work majors.

## SOW 3111 HPA-SOWK 3(3,0)

Assessing II: Human Systems: PR: or CR: SOW 3104. Development of skills in assessing families, groups, organizations, and communities, their impact on human functioning, and their potential for providing social support.

SOW 3203 HPA-SOWK 3(3,0)
Social Welfare and Community Resources: Study of social welfare, programs and services, including forces affecting changes in societal responses to human needs. Open to non-majors and pending social work majors.

## SOW 3300 HPA-SOWK 3(2,1)

Practice I: Generalist Practice in Social Work: Study of social work functions, knowledge, values, and skills. Development of ability to use a generalist model of practice.

## SOW 3352 HPA-SOWK 3(1,2)

Practice II: PR: or CR: SOW 3300. Interpersonal Skills in Social Work: PR or CR: SOW 3300. Study and practice of interviewing, group leadership, written communication, and oral presentations, in consensual as well as conflictual contexts of social work.

## SOW 3401 HPA-SOWK 3(3,0)

Social Work Research: PR: CGS 1060C. Study of quantitative and qualitative methods of building knowledge for social work and the ethical use of research in professional practice.

## SOW 3420 HPA-SOWK 3(2,1)

Social Work with Minorities: PR: SOW 3300, SOW 3203, and SOW 3104. Study of oppressed groups and relevant social work interventions; skill development in work with, and in behalf of, people of minority groups.

## SOW 4232 HPA-SOWK 3(3,0)

Social Welfare Policies and Issues: PR: SOW 3203 or equivalent. Development of skills needed to critically analyze social welfare goals, structures, and practices. Proposes improvements in societal resource systems.

## SOW 4341 HPA-SOWK 3(1,2)

Micro-Level Roles and Interventions in Social Work: PR: SOW 3300, SOW 3352. Study and simulated practice of roles and tasks in systemic problem solving with individuals, families and supportive and remedial groups.

## SOW 4343 HPA-SOWK 3(1,2)

Macro-Level Roles and Interventions in Social Work: PR: SOW 3300, SOW 3352. Study and simulated practice of roles and tasks in systemic problem solving to obtain and improve social welfare resources within organizations and communities.

## SOW 4431 HPA-SOWK 3(2,1)

Evaluating Social Work Practice and Service Programs: PR: SOW 3401, SOW 3300. The study of systematic data collection and of measurement of change in individuals, families, groups, programs, and communities.

## SOW 4510 HPA-SOWK 9(0,27)

Field Education: PR: Completion of required courses in major: GPA 2.5 in major. CR: SOW 4522. Supervised learning experiences in agencies which relate social work practice to theory, involving 420 clock hours in the field.

## SOW 4522 HPA-SOWK 3(2,1)

Field Education Seminar: PR: Completion of required courses in major: CR: SOW 4510. Weekly seminar to examine the field experience and to relate theory with practice situations.

## SOW 4602 HPA-SOWK 3(3,0)

Social Work in Health Settings: PR: SOW 3300 and SOW 3104. Study of social work roles, interventions, and issues related to helping patients in health settings.

## SOW 4645 HPA-SOWK 3(3,0)

Social Services for the Elderly: PR: SOW 3300, SSOW 3104, or Gerontology Certificate Major. Development of inter-ventive skills for obtaining, providing, and improving social services in behalf of elderly persons and their families.

## SOW 4654 HPA-SOWK 3(3,0)

Children's Services: PR: SOW 3300, SOW 3104. Study of societal responses to children's needs. Development of skills for preventing family breakdown, placing children in alternative care, and reuniting children with their families.

## SOW 5105 HPA-SOWK 3(3,0)

Human Behavior and Social Environment I: Individual: PR: Admission to MSW program. Study of human development and psychosocial functioning of individuals at various life stages with particular attention to implications of human diversity.

## SOW 5106 HPA-SOWK 3(3,0)

Human Behavior and Social Environment II: Social Systems: Study of the patterns and dynamics of families, groups, organizations, and communities from a social work and a systems perspective.

## SOW 5132 HPA-SOWK 3(3,0)

Diverse Client Populations: Study of human diversity, focusing on the needs, resources, problems, and service issues of several identified minority client populations.

## SOW 5235 HPA-SOWK 3(3,0)

Social Welfare Policies and Services: Study of societal responses to human needs; forces shaping
social welfare systems; introduces frameworks for analyzing social policies and services

## SOW 5305 HPA-SOWK 3(3,0)

Social Work Practice I: Generalist Practice: Study of social work functions, knowledge, values, roles and skills; the use of a generalist model of practice.

SOW 5306 HPA-SOWK 3(3,0)
Social Work Practice II: Intervention Approaches: Study of selected social work theories, strategies, and techniques for helping people and improving system responsiveness to human needs.

## SOW 5355 HPA-SOWK 3(3,0)

Studies in Social Work Practice: PR: C.I. Analysis of one or more urban practice issues and approaches. May be repeated for credit.

## SOW 5404 HPA-SOWK 3(3,0)

Social Work Research: Study of group research designs in social work; quanti-tative analyses; and related ethical issues.

## SOW 5432 HPA-SOWK 3(3,0)

Evaluating Social Work: Study of single case designs in social work; recording methods; behavioral and standardized measures; applications to individuals, families, groups, programs, communities.

## SOW 5532 HPA-SOWK 3(3,0)

Generalist Field Education I: PR: admission to MSW program. Supervised practice of social work in an agency for 224 clock hours. Graded S/U.

## SOW 5533 HPA-SOWK 3(0,3)

Generalist field Education II:: PR: SOW 5532. Continuation of SOW 5532 Generalist Field Education I in the same field agency for 224 clock hours. Includes field seminar. Graded S/U.

SOW 5604 HPA-SOWK 3(3,0)
Medications in Social Work Practice: PR: graduate standing, post-bac status, senior in SW program or C.I. The study of the effects that psychotropic medications can have within the counseling/helping relationship.

## SOW 5624 HPA-SOWK 3(3,0)

Social Work Practice in Mexican Culture: PR: C.I. The practice of social work in Mexican culture through cultural immersion, seminars, field visits and language instruction.

SOW 5625 HPA-SOWK 3(3,0)
Social Work with Women: Alternative approaches to the treatment of women in the urban setting.

Aging In Social Situations: PR: Admission to MSW program or Gerontology Certificate Program or C.I. Knowledge about elderly in social situations or environmental context.

## SOW 5644 HPA-SOWK 3(3,0)

Interventions with Elderly and Their Families: PR: Admission to Gerontology graduate certification program or MSW program or CI. Study of concepts, skills, models and theories for intervening with aged. Special attention is given to minority populations.

## SOW 5655 HPA-SOWK 3(3,0)

Child Abuse: Treatment and Preven-tion: The social worker's role and interventions with victims of child abuse and their family members.

SOW 5662 HPA-SOWK 3(3,0)
Strategies in Employee Assistance Programs: Techniques for establishing, providing, and evaluating services to people with problems that affect job performance.

## SOW 5712 HPA-SOWK 3(3,0)

Interventions with Substance Abusers: Strategies for working with persons who abuse drugs, alcohol, and other substances.

## SOW 5846 HPA-SOWK 3(3,0)

Spirituality in Professional Counseling: PR: graduate standing, post-bac status, seniors, or C.I. Examination of spirituality as it relates to professional counseling.

SPA $3000 \quad$ HPA-COMD 3(3,0)
Detection and Prevention of Speech and Hearing Problems: An elective course for non-majors. Live and videotaped demonstrations of speech and hearing cases. Specific suggestions for prevention.

## SPA 3002 HPA-COMD 3(3,0)

Introduction to Communicative Disor-ders: Etiology, symptoms, and methods of diagnosing and treating communicative disorders. For beginning and prospective majors in communicative disorders.

## SPA 3002H HPA-COMD 3(3,0)

Introduction to Communicative Disor-ders: Etiology, symptoms, and methods of diagnosing and treating communicative disorders. For beginning and prospective majors in communicative disorders.

SPA 3011 HPA-COMD 3(3,0)
Speech Science I: Production: Study of how speech is produced, how it is transformed into an acoustic signal, and how that acoustic signal is measured.

SPA 3101 HPA-COMD 3(3,0)
Physiological Bases of Speech and Hearing: PR: SPA 3002. An introduction to the anatomical,
physiological, and physical elements underlying the communication process.

## SPA 3104 HPA-COMD 3(3,0)

Neural Bases of Communication: PR: SPA 3101. Structures and functions of the nervous system involved in communication and its disorders.

## SPA 3112C HPA-COMD 4(3,1)

Basic Phonetics: Physiological descrip-tions and visual notation of speech pat-terns and regional dialects. Students will have practical experiences in transcription of normal and deviant speech.

## SPA 3112L HPA-COMD 1(0,1)

Basic Phonetics Lab: CR: SPA 3112C. Practice in the transcription of normal and deviant speech samples.

## SPA 3123 HPA-COMD 3(3,0)

Speech Science II: Perception: PR: SPA 3112C, SPA 3011. CR: SPA 3123L. How the perception of human speech differs from that of other auditory signals.

## SPA 3123L HPA-COMD 1(0,1)

Speech Perception Lab: CR: SPA 3123. Laboratory techniques used in investigating human speech perception.

## SPA 3143L HPA-COMD 1(0,1)

Speech Production lab: PR: SPA 3112C. CR: SPA 3011. How speech production is measured both physiologically and acoustically.

SPA 3621 HPA-COMD 3(3,0)
Introduction to Signed English and Culture of the Deaf: Vocabulary and grammar through introductory level. Conceptual basis of ASL discussed.

SPA 4032 HPA-COMD 3(3,0)
Audiology: PR: SPA 3123. Physics of sound, anatomy of hearing mechanism, pure tone audiometry, hearing aids, problems of the deaf and hard of hearing. Clinical Skills development required.

## SPA 4050L HPA-COMD 3(0,6)

Clinical Observation: PR: SPA 4550. Observation of speech, language, and hearing evaluations and intervention. Emphasis on goal setting, motivation, behavior management, shaping, reinforcement, data collection, and non-verbal communication.

## SPA 4052L HPA-COMD 3(0,3)

Clinical Practice: Participant Observation: PR: SPA 4550. Supervised partici-pation in on-campus clinic by serving as participant observer with one client. Em-phasis on applying skills learned in Clini-cal Methods and Clinical Observation.

Articulation And Phonological Disorders: PR: SPA 3002, SPA 3112C. The etiology, assessment, and management of articulation and phonological disorders, including those associated with structural variations and neuromotor disorders.

## SPA 4241 HPA-COMD 3(3,0)

Genetic Aspects of Communication Disorders: PR: BSC 2010C, Junior or senior standing. Theoretical framework for understanding human genetics and the genetic aspects of communication and feeding disorders.

SPA 4321 HPA-COMD 3(3,0)
Aural Habilitation: Rehabilitation: PR: SPA 4032, SPA 4400C, SPA 4201C. Principles and procedures in the use of residual hearing, auditory training, speech reading, and the use of hearing aids.

SPA 4400 HPA-COMD 3(3,0)
Language Disorders Across the LIfe Span: PR: LIN 3717. Etiology, assessment, and management of language disorders in children, adolescents, and adults, including those associated with autism, traumatic brain injury, learning disabilities, and dementia.

SPA 4550 HPA-COMD 3(3,0)
Clinical Methods in Communicative Disorders: CR: SPA 4050L, SPA 4201 and SPA 4400. The principles and techniques of case management with an emphasis on designing individualized treatment programs for individuals with communication disorders.

SPA 4557 HPA-COMD 3(3,0)
Augmentative Communication Systems: PR: LIN 3710, SPA 4032. Students will learn the rudiments of nonverbal communication systems, for example, Bliss, Rebus, Manual Singing, Language Boards, and finger spelling.

SPA 4612 HPA-COMD 3(3,0)
Introduction to American Sign Language: Development of ASL vocabulary and grammar. Deaf culture, literature, research examined.

## SPA 4613 HPA-COMD 3(3,0)

Intermediate American Sign Language: Expansion of ASL vocabulary with increased development of knowledge concerning deaf culture.

## SPA 4614C HPA-COMD 4(3,1)

American Sign Language III: PR: SPA 4613. Conversation. Emphasis on refining fluency receptively and expressively. Practicum with the deaf community.

## Practicum in Communicative Disorders:

## SPA 5225L HPA-COMD 1(0,2)

Fluency Disorders Laboratory: PR: Graduate status or C.I. Practical
application of clinical skills in fluency disorders.
SPA 5327 HPA-COMD 4(4,0)
Aural Habilitation/Rehabilitation: PR: SPA 6225, SPA 6132, SPA 6211. Principles and procedures involved in speech and language acquisition management, utilization of residual hearing, speech reading, and the use of hearing aids.

## SPA 5473 HPA-COMD 3(3,0)

Multicultural Aspects of Communication Disorders and Differences: PR: Graduate status. Introduction to cultural and linguistic diversity among individuals with communication disorders and differences. Special emphasis on African, Hispanic, Asian, and Native-American.

## SPA 5477 HPA-COMD 3(3,0)

Aging and Communication: PR: Senior status of CI. Study of the changes in com-munication with normal aging, focusing on assessment and management of older individuals with communication disorders.

## SPA 5559 HPA-COMD 3(3,0)

Augmentative and Alternative Communication Systems: PR: Senior status or CI. The total integrated network of techniques, aids, strategies, and skills individuals use to supplement or replace inadequate natural speaking ability.

## SPA 5561 HPA-COMD $3(3,0)$

Counseling in Communicative Disor-ders: PR: Senior Status or C.I. Interview-ing and counseling for individuals with communication disorders and their families.

SPA $5570 \quad$ HPA-COMD 3(3,0)
Administration and Management of Communicative Disorders Programs: PR: SPA 6553, SPA 5237, seminar. Methods and techniques for organization and administration of speech-language and hearing disorders in public school, hospital, rehabilitation center, and private practice facilities.

SPA 5805 HPA-COMD 3(3,0)
Research in Communicative Disorders: PR: STA 4163, graduate status or C.I. Introduces the student to empirical research in the area of communicative disorders. Emphasis is on hypothesis testing, methodology, analysis, and interpretation of results.

SPC 1016 AS-COMM 3(3,0)
Fundamentals of Technical Presenta-tions: Preparation and presentation of technical information in
public speaking situations.
SPC 1016H AS-COMM 3(3,0)
Honors Fundamentals of Technical Presentation: PR: Honors college. The preparation and presentation of technical information in public speaking situations.

SPC 1600C AS-COMM 3(1,2)
Fundamentals of Oral Communication: Use of the body and voice; participation in various speaking situations; planning, organizing, and delivering public speeches.

## SPC 1600H AS-COMM 3(3,0)

Honors Fundamentals of Oral Communication: PR: University Honors Program. Same as SPC 1600 with honors-level content.

## SPC 3301 AS-COMM 3(1,2)

Interpersonal Communication: Nature of the communication process; variables affecting the process and the individuals involved. Analysis of communication models, interactant behavior, situational cues, verbal and non-verbal messages.

SPC 3425C AS-COMM 3(2,1)
Group Interaction and Decision-Making: PR: COM 3311. A study of small group processes. Attention is given to problem solving, leadership emergence, conformity behavior, and group member role responsibilities.

SPC 3445 AS-COMM 3(3,0)
Leadership Through Oral Communication: PR: COM 3120 and COM 3311. A theoretical and practical investigation of leadership in oral communication situations, principles of parliamentary law, and approaches to problem solving.

SPC 3513 AS-COMM 3(1,2)
Argumentation and Debate: PR: SPC 1600C or C.I. Study and practice in the preparation and delivery of argumentative speeches emphasizing argument, evidence, and organization.

## SPC 3602 AS-COMM 3(1,2)

Advanced Public Speaking: PR: SPC 1600C or C.I. Advanced training in selecting and organizing materials for various types of speeches. Practice in thinking and speaking before audiences.

SPC 4331 AS-COMM 3(3,0)
Nonverbal Communication: PR: COM 3311. Review of current behavioral research in such areas as proxemics, kinesics, physical characteristics, tactile communication, and paralanguage. Lectures are supplemented by frequent nonverbal exercises.

SPC 4350 AS-COMM $\mathbf{3 ( 3 , 0 )}$

Studies in Listening: PR: COM 3311. Analysis of current trends, professional literature, and resource materials bearing upon the teaching of listening. Practice in listening; preparing listening experiences; oral and written reports.

SPC 4426 AS-COMM $\mathbf{3}(3,0)$
Group Dynamics: PR: SPC 3425C and COM 3311. A study of human behavior in group situations.
SPC 4540 AS-COMM 3(3,0)

Attitudes and Communication: PR: COM 3311. A survey of the immediate and direct ways in which persuasive communications and social groups come to influence attitudes.

SPC 5200 AS-COMM 3(3,0)
Evolution of Communication Theory: General Survey: Major communication trends from classical era to the present. Comparison of Aristotelian and non-Aristotelian rhetorics. Contributions of principal figures will be discussed.

SPN 1120 AS-LANG 4(4,1)
Elementary Spanish Language and Civilization I: Introduces the student to Spanish culture through the major lan-guage skills: listening, speaking, reading and writing. Open only to students with no experience in this language.

SPN 1121 AS-LANG 4(4,1)
Elementary Spanish Language and Civilization II: PR: SPN 1120 or equivalent. Continuation of SPN 1120.

SPN 1130H AS-LANG 4(4,1)
Honors Elementary Spanish Language and Civilization I: Introduces the student to Spanish culture through the major language skills: listening, speaking, reading and writing. Open only to students with no experience in this language. Honors-level content.

## SPN 1131H AS-LANG 4(4,1)

Honors Elementary Spanish Language and Civilization II: PR: SPN 1120H or equivalent. Same as SPN 1121 with honors-level content.

SPN 1170 AS-LANG 8(16,10)
Elementary Spanish Study Abroad: Elementary Spanish language and civil-ization taught in the native environment.

SPN 2230 AS-LANG 3(3,1)
Intermediate Spanish Language and Civilization I: PR: SPN 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.

SPN 2231 AS-LANG 3(3,1)

Intermediate Spanish Language and Civilization II: PR: SPN 2230 or equivalent. Continuation of SPN 2230, with emphasis on Spanish civilization.

## SPN 2240 AS-LANG 3(3,1)

Intensive Spanish Conversation: PR: One year of Spanish or equivalent. Practical use of the language, leading toward fluency and correctness in speaking at the intermediate level.

SPN 2241 AS-LANG 3(3,0)
Spanish Conversation: PR: SPN 2231 or equivalent. Development of skills in conversation and comprehension through practice.

SPN 2340 AS-LANG 3(3,0)
Spanish for Native Speakers: PR: Must be a native speaker. Intensive Spanish for native speakers who have had little or no formal training in the language.

SPN 2511 AS-LANG 3(3,0)
Modern Spanish Civilization Abroad: PR: SPN 1120 \& 1121. This intensive course will focus on modern Spanish culture using examples from present day society. Cultural visits and realia are essential components of this course

SPN 3140 AS-LANG 3(3,0)
Business Spanish I: PR: SPN 2230 and SPN 2231 or equivalent. Basic business terminology, business culture, and busi-ness topics related to the Hispanic World.

SPN 3141 AS-LANG 3(3,0)
Business Spanish II: PR: C.I. Continuation of Business Spanish I.
SPN 3142 AS-LANG 3(3,0)
Business Spanish III: PR: C.I. Continuation of Business Spanish II.
SPN 3300 AS-LANG 3(3,0)
Advanced Spanish Grammar and Composition: PR: SPN 2231 or equiva-lent. Advanced Spanish grammatical topics, idiomatic expressions, and continued development of writing skills based on the newly acquired concepts.

SPN 3341 AS-LANG 3(3,0)
Advanced Spanish for Native Speakers: PR: SPN 2340 or C.I. This course is the continuation of SPN 2340 geared towards native speakers and will complete the remaining grammatical topics as well as emphasize composition skills.

SPN 3343 AS-LANG 3(3,0)
Advanced Rhetoric for Native Speakers: PR: Third year level oral proficiency. Systematic study of Spanish grammar as applied to rhetoric in standard Spanish for native speakers only.

Advanced Spanish Native Fluency I: PR: SPN 3300 or C.I. Advanced grammatical topics and composition skills for native or near-native fluency speakers.

SPN 3345 AS-LANG 3(3,0)
Advanced Spanish Native Fluency II: PR: SPN 3344. Continuation of Advanced Spanish Native Fluency I emphasizing the remaining grammatical topics and composition skills.

SPN 3402 AS-LANG 3(3,0)
Practice in Modern Spanish Grammar: PR: SPN 2241 or 3420. This intensive Spanish course will provide the advanced student with practice and drill in modern Spanish using native texts.

SPN 3420 AS-LANG 3(3,0)
Spanish Composition: PR: SPN 2231 or equivalent. Development of skills in composition.
SPN 3512 AS-LANG 3(3,0)

Contemporary Spanish Culture Abroad: PR: SPN 3241 or 3420. This course will focus on contemporary Spanish culture presented through classroom lectures and discussions, assigned reading and scheduled activities.

## SPN 3760 AS-LANG 3(3,0)

Advanced Spanish Oral Communica-tion: PR: SPN 2231 or SPN 2240 or equivalent. Vocabulary building with systematic training in diction and locu-tion. Speeches and oral presentations as well as production and delivery of real-life dialogues.

SPN 3850 AS-LANG 3(3,0)
Structure of the Spanish Language: PR: SPN 3420. Linguistic theory applied to analysis of Spanish language. Includes systematic study of sound patterns, semantics, word formations, and socializations.

SPN 3852 AS-LANG 3(3,0)
Bilinguismo: PR: SPN 3241 or equivalent. Spanish-English bilingualism in the United States. Models of language acquisition in bilinguals, domains of language use, maintenance, shift, transfer, diversity, attitudes, code-switching, attrition and contact.

## SPN 3933 AS-LANG 1(1,0)

Spanish Across the Curriculum: PR: SPN 2231 or C.I. CR: concurrent enroll-ment in a designated course. Improve-ment of skills in Spanish within the stu-dent's major or minor. Open to students in all colleges. May be repeated for credit.

SPN 4143 AS-LANG 3(3,0)
Business Spanish IV: PR: C.I. Advanced course in business terminology and development of advanced language skills.

Advanced Spanish Conversation: PR: SPN 2241. Advanced conversation on directed topics from various disciplines: literature, art, psychology, philosophy, music, business, and the sciences.

SPN 4421 AS-LANG 3(3,0)
Advanced Spanish Composition: PR: SPN 3420. Readings and written imitations of modern literary styles in the form of themes, sketches, poems, and original stories.

## SPN 4510 AS-LANG 3(3,0)

Spanish Civilization and Culture: PR: SPN 3760, SPN 3420 and SPN 3300 or C.I. A study of Spanish civilization and culture from Pre-Roman times to the present. Conducted in Spanish.

## SPN 4520 AS-LANG 3(3,0)

Latin American Civilization and Culture: PR: SPN 3760, SPN 3420 and SPN 3300, or C.I. An overview of the currents in Latin American culture and civilization from the Pre-Columbian period to the present. Conducted in Spanish.

## SPN 4780 AS-LANG 3(3,0)

Spanish Phonetics: PR: SPN 3760, SPN 3420 and SPN 3300, or C.I. Students will learn the basic principles of Spanish pronunciation and perfect the correct punctuation of Spanish through intensive practice and oral drill.

SPN 4800 AS-LANG 3(3,0)
Spanish-American Syntax: PR: SPN 3760, SPN 3420 and SPN 3300, or C.I. The course examines the Spanish lan-guage from its beginning to the present, with special emphasis as it is written and spoken in Latin America and the U.S.

SPN 4801 AS-LANG 3(3,0)
Spanish Morphosyntax: PR: SPN 3760, SPN 3420 and SPN 3300, or C.I. Empha-sizes the structure as well as the capacity for recognizing the differences between semantics, morphology, syntax, and pho-nology in the Spanish language, as well as the use and correct application of criterion when analyzing texts. Taught in Spanish.

SPN 5502 AS-LANG 3(3,0)
Hispanic Culture of the United States: PR: Graduate Standing or C.I. An analysis of the Hispanic culture of the United States, past and present.

SPN 5505 AS-LANG 3(3,0)
Spanish Peninsular Culture and Civilization: PR: Graduate Standing or C.I. An analysis of the salient characteristics of Spanish culture and civilization.

Spanish American Culture and Civilization: PR: Graduate Standing or C.I. An analysis of the
salient characteristics of Spanish American culture and civilization.

## SPN 5705 AS-LANG 3(3,0)

Introduction to Spanish Linguistics: PR: Graduate Standing or C.I. An intro-duction to main concepts and methods of analyses focusing on Spanish morphology, syntax, semantics, and phonology as well as dialectology and sociolinguistics.

## SPN 5825 AS-LANG 3(3,0)

Spanish Dialectology: PR: Graduate Standing or C.I. This course is a survey of the diversity found within the Spanish language with respect to phonological constraints, morphosyntax, second language influences, and historical development.

SPN 5845 AS-LANG 3(3,0)
History of the Spanish Language: PR: Graduate Standing or C.I. An overview of linguistic characteristics of Latin and its evolution into Spanish with historical development of phonetic, morphological, and syntactic properties.

SPN 5920 AS-LANG 3(3,0)
AP Spanish Language: Participants will enhance their knowledge of the language and culture of Spanish-speaking peoples and develop further proficiency in listening, comprehension, speaking, reading, and writing.

## SPT 3000H AS-LANG 3(3,0)

Honors: Nobel Prize Literature: Spain and Latin America: PR: Honors, Junior standing or C.I. Students will analyze, discuss and research English translations of Spanish and Latin American Nobel-Prize-Winning writers. Through readings, students will explore the universality of Spanish literature.

## SPT 3800 AS-LANG 3(3,0)

Spanish Translation and Interpretation: PR: Completion of 2000 level sequence or equivalent. Introduction to translation and interpretation, practical applications of theory applied to profes-sional written and audio texts from Spanish to English and from English to Spanish.

SPT 3805 AS-LANG 3(3,0)
Spanish Translation and Interpretation for Mass Communication: PR: SPN 3420. Translation and interpretation in mass communication using all forms of media.

SPT 3809 AS-LANG 3(3,0)
Medical Spanish Translation/ Interpretation: PR: SPN 2241 and SPN 3420. The basic Spanish terminology, techniques and ethics in the field of medical translation and interpretation.

SPT 3831 AS-LANG 3(3,0)
Spanish Legal Translation and Interpretation: PR: SPN 3420 and SPN 3241. The terminology,
procedures and ethics required to be a Spanish language court interpreter and translator in the legal field. May be repeated for credit.

SPW 3100 AS-LANG 3(3,0)
Survey of Spanish Literature I: PR: SPN 3760, SPN 3420 and SPN 3300, or C.I. Main literary currents and works from the Middle Ages through the Eighteenth century.

SPW 3101 AS-LANG 3(3,0)
Survey of Spanish Literature II: PR: SPN 3760, SPN 3420 and SPN 3300, or C.I. Main literary currents and works of the Nineteenth century to the present.

SPW 3130 AS-LANG 3(3,0)
Survey of Latin-American Literature I: PR: SPN 3760, SPN 3420 and SPN 3300, or C.I. Main literary currents and works from the colonial period to Nineteenth Century Romanticism.

SPW 3131 AS-LANG 3(3,0)
Survey of Latin-American Literature II: PR: SPN 3760, SPN 3420 and SPN 3300, or C.I. Main literary currents and works of the Nineteenth century from Realism to the present.

SPW 3320 AS-LANG 3(3,0)
Modern Hispanic Theatre Workshop I: PR: C.I. Introduction to fundamental actor's technique and practice in Spanish. Short scenes will be performed in class.

SPW 3321 AS-LANG 3(3,0)
Modern Hispanic Theatre Workshop II: PR: SPW 3320. Participation in a theatre production of a play in Spanish. Open to majors in Spanish, Theatre and any technical performance.

SPW 3370 AS-LANG 3(3,0)
Spanish Short Story: PR: SPN 3760, SPN 3420 and SPN 3300, or C.I. A study of representative 19th and 20th-century Spanish short stories and their authors.

SPW 4272 AS-LANG 3(3,0)
20th Century Spanish Novel: PR: SPW 3101 or SPW 3131 or C.I. Major works by the leading authors of the 20th century. Texts selected are studied not only for their aesthetic value, but also in terms of their historical and cultural significance.

SPW 4310 AS-LANG 3(3,0)
Golden Age Drama: PR: SPW 3100 or C.I. A study of the drama of the Golden Age, with special emphasis on Lope, Tirso, Alarcon, and Calderon. The controversies of the Spanish theatre and its influence abroad are examined.

SPW 4322 AS-LANG 3(3,0)
Contemporary Iberian Theatre: PR: SPW 3101 or CI. A study of the major playwrights and
tendencies in contemporary Iberian theatre.
SPW 4364 AS-LANG 3(3,0)
Latin-American Narrative/Essay: PR: SPW 3100 or SPW 3130 or SPW 3131 or SPW 3370 or C.I. Study of Latin-American narrative/essay (changing topics by semester) with emphasis in 20th century texts, contrasting techniques, procedures, and literary theories. Course could be repeated for credit when topic changes.

SPW 4381 AS-LANG 3(3,0)
Latin-American Theatre/Poetry: PR: SPW 3100 or SPW 3101 or SPW 3130 or SPW 3131 or SPW 3370. Study of Latin-American theatre/poetry (changing topics by semester) with emphasis in 20th cen-tury texts, contrasting techniques, proce-dures, and literary theories. Course could be repeated for credit when topic changes.

SPW 4382 AS-LANG 3(3,0)
Central American Literature: PR: SPW 3131. This course familiarizes the student with literary works of prominent writers from Central America. It covers the different literary periods within Central America literary history. Taught in Spanish.

SPW 4450 AS-LANG 3(3,0)
Spanish Literary Theory: PR: SPW 3100 and SPW 3101, or SPW 3130 and SPW 3131, or C. I. A study of textual criticism with emphasis in the theory of genre.

SPW 4460 AS-LANG 3(3,0)
Nineteenth Century Spanish Literature: PR: SPW 3101 or C.I. A study of the representative authors and works in Spanish Romanticism, Realism, and Naturalism.

SPW 4600 AS-LANG 3(3,0)
Cervantes: PR: SPW 3100 or C.I. Don Quixote.
SPW 4720 AS-LANG 3(3,0)
The Generation of 1898: PR: SPW 3101 or C.I. A study of the generation's main authors and their works.

SPW 4730 AS-LANG 3(3,0)
Hispanic Literature of the United States: PR: SPW 3101 or SPW 3131 or C.I. Reading and study of outstanding works written by Hispanic writers of the United States.

SPW 4770 AS-LANG 3(3,0)
Caribbean Spanish Literature: PR: SPW 3101 or SPW 3131 or C.I. An overview of the literature of the Spanish-speaking Caribbean countries from colonial times to the present.

SPW 4772 AS-LANG 3(3,0)

Black Presence in Contemporary Latin American Literature: PR: SPW 3101 or SPW 3131 or C.I. Analysis and discussion of representative contemporary work of authors who have included the black character as part of their narrative.

SPW 5805 AS-LANG 3(3,0)
Spanish Graduate Studies Research: PR: Graduate student in Spanish M.A. program. The tools needed for research in Spanish linguistics, literary criticism, and culture are taught along with historical and contemporary literary criticism.

SPW 5825 AS-LANG 3(3,0)
Seminar Series: PR: Graduate Standing or C.I. A seminar course that focuses on a single author, a geographical area or a specific topic within a period or literary movement from Spain, Latin American or Hispanics in the U.S. May be repeated for credit.

SSE 3312 ED-IP 3(3,0)
Teaching Social Science in the Elemen-tary School: PR: Admission to Phase II or C.I. Selected themes, problems, and concepts; organizing for instruction; techniques; evaluation procedures.

SSE 4361 ED-IP 4(3,2)
Social Science Instructional Analysis: PR: EDG 4323 or C.I. Study of instructional programs in social sciences; objectives; materials; techniques; organization of instruction; evaluation procedures; current research for the middle grades and high school.

## SSE 5115 ED-IP 3(3,0)

Methods in Elementary School Social Science: PR: EDG 4323. Study of instructional programs in social sciences; objectives; materials; techniques; current research; and their application in elementary school setting.

STA 1060C AS-STAT $\mathbf{3}(2,1)$
Basic Statistics Using Microsoft Excel: Applications of Excel; manipulating data; single variable graphs and statistics; scatterplots; probability distributions; statistical inference.

STA 2014C AS-STAT $\mathbf{3}(\mathbf{2}, 1)$
Principles of Statistics: Introduction to statistical concepts in modern society. Basic principles, frequency distributions, measures of location and dispersion, probability, statistical inference. Course is graded with an "A," "B," "C," "NC" and "F."

STA 2023 AS-STAT 3(3,0)
Statistical Methods I: PR: MAC 1105 or MGF 1106. First methods course introducing probability and statistical inference, including estimation, hypothesis testing, binomial and normal distributions, sample size.

Honors Statistical Methods I: PR: Honors Program Student; Calculus desired by not necessary. Same as STA 2023 with honors-level content.

## STA 3032 ECS-IEMS 3(3,0)

Probability and Statistics for Engineers: PR: MAC 2312 and computer programming. Axions of probability; combinatorial and geometrical probability; probability distributions; measures of location and dispersion; sampling and sampling distributions; estimation and tests of hypotheses; engineering applications.

## STA 3096 AS-STAT 3(3,0)

Statistical Graphics: PR: STA 2023 or STA 3032 and a knowledge of a programming language. Principles of graph construction, graphical perception, graphical methods, computer programs for graph construction.

STA 4102 AS-STAT 3(3,0)
Computer Processing of Statistical Data: PR: STA 4163 and knowledge of a programming language. Use of packages such as SAS, BMD, SPSS for data validation, description and analysis of data, regression and analysis of variance and covariance.

## STA 4130 AS-STAT 3(3,0)

Life Contingencies I: PR: STA 4183 (or new number STA 4183). Economics of insurance, utility theory, single premiums for insurance and annuities in both discrete and continuous cases. Net annual premium and net premium reserves.

STA 4131 AS-STAT 3(3,0)
Life Contingencies II: PR: STA 4130 (new number STA 4130?). Multiple-decrement and multi-life models. Insurance models including expenses. Modified reserves. Cash values, insurance options and asset shares. Non forfeiture benefits and dividends.

## STA 4163 AS-STAT 3(3,0)

Statistical Methods II: PR: STA 2023 or STA 3032. Methods of analyzing data, statistical models, estimation, tests of hypotheses, regression and correlation, an introduction to analysis of variance, chi-square, and nonparametric methods.

STA 4164 AS-STAT $\mathbf{3}(\mathbf{3}, 0)$
Statistical Methods III: PR: STA 4163. A continuation of STA 4163, including further study of regression, analysis of variance and covariance and multiple comparisons.

STA 4165 AS-STAT $\mathbf{4}(4,0)$
Statistical Methods II with Computer Emphasis: PR: STA 2023 or STA 3032. Methods for analyzing data, design of experiments nonparametric methods, categorical analysis, model building, covariance analysis, strong emphasis on use of a computer package.

STA 4173 AS-STAT $\mathbf{3}(\mathbf{3}, 0)$

Biostatistical Methods: CR: STA 4163. Introduction to the application of statistical principles and methods to problems in medical, biological, and health sciences.

## STA 4183 AS-STAT 3(3,0)

Theory of Interest: PR: MAC 2312 (or equivalent) and STA 2023. Measurement of simple and compound interests, accumulated and present values factors. Annuities certain, yield rates, amortization schedules and sinking funds. Bonds, securities and related funds.

STA 4187 AS-STAT $\mathbf{3}(\mathbf{3}, 0)$
Theory of Graduation: PR: STA 4322. Graduation, moving weighted averages methods, Whitaker-Henderson, Baysian and parametric methods, smooth-junction formula, graduation of selected data.

## STA 4222 AS-STAT 3(3,0)

Sample Survey Methods: PR: STA 2023 or STA 3032. Constructing and analyzing survey designs. Sampling and non-sampling errors. Simple random, stratified, systematic, and multiphase sampling. Methods of estimation.

STA 4321 AS-STAT 3(3,0)
Statistical Theory I: PR: STA 2023 or STA 3032; CR: MAC 2313. Probability axioms, discrete and continuous sample spaces, conditional probability, independence, one-dimensional random variables, moment generating functions, transformations, jointly distributed random variables.

STA 4322 AS-STAT 3(3,0)
Statistical Theory II: PR: STA 4321. Conditional distributions, sums of random variables. Chebyshey's inequality, central limit theorem, method of movements, maximum likelihood, confidence intervals, hypothesis testing, transformations of two random variables.

STA 4502 AS-STAT $\mathbf{3}(\mathbf{3}, 0)$
Nonparametric Statistical Methods: PR: STA 2023 or STA 3032. Distribution-free tests on location and dispersion, goodness of fit tests, tests of independence, measures of association, nonparametric analysis of variance.

STA 4641 AS-STAT $\mathbf{3}(\mathbf{3 , 0})$
Risk Theory and Decision: PR: STA 4322. Individual and collective risk models for short terms and for extended periods, applications of risk theory to actuarial problems. Risk factors and their financial effects.

## STA 4664 AS-STAT 3(3,0)

Statistical Quality Control: PR: STA 2023 or STA 3032. Statistical concepts and methods applied to the control of quality of manufactured products.

Demographic Statistics: PR: STA 4322. Measures of mortality, fertility and morbidity. Construction methods of life tables from census data, population projection techniques, stability and stationarity of demographic populations.

STA 4676 AS-STAT $\mathbf{3}(3,0)$
Life Testing Analysis: PR: STA 4322. Models of survival analysis including random and non-random censoring and truncation. Parametric estimation of life distribution. Nonparametric methods. Grouped data.

## STA 4852 AS-STAT 3(3,0)

Applied Time Series: PR: STA 4163. Forecasting methods, time series analysis, stationary and non-stationary time series, ARIMA models, forecasting processes.

## STA 4942C AS-STAT 2(2,2)

Practicum in Actuarial Science: PR: STA 4183. Presentations by and discussions with practicing actuaries on problems drawn from their fields of expertise, including life insurance, casualty insurance, health insurance, and professional ethics. May be repeated for credit.

STA 4999C AS-STAT $\mathbf{2}(\mathbf{2}, 2)$
Problems in Actuarial Science: PR: STA 4322. Review of fundamental mathematical tools for quantitatively assessing risk. The application of these tools to problems encountered in actuarial science is emphasized. May be repeated for credit.

STA 5103 AS-STAT 3(3,0)
Advanced Computer Processing of Statistical Data: PR: STA 4163 and knowledge of a programming language. Use of SAS and other statistical software packages; data manipulation; graphical data presentation; data analysis; creating analytical reports

STA 5132 AS-STAT 3(3,0)
Pension Actuarial Science: PR: STA 4322 and STA 4131. Pension plan funding basic theory and applications. Types and calculations of pension benefits. Methods of funding pension plans. normal costs, supplemental liability and projected benefit cost methods

STA 5139 AS-STAT $\mathbf{3}(\mathbf{3}, 0)$
Credibility Theory and Loss Distribu-tion: PR: STA 4322. Full and partial credibility. The credibility premium. Exact credibility. Parametric and nonparametric estimation of credibility. Loss models for claim severities and frequencies. Aggregate claims models.
STA 5175 AS-STAT 3(3,0)
Biometry: PR: STA 2023 or C.I. Design and analysis of experiments with empha-sis on biological/ecological application; one-way and multi-way ANOVA; regression; ordination; classification.

STA 5176 AS-STAT $\mathbf{3}(\mathbf{3}, 0)$

Introduction to Biostatistics: PR: STA 4163 or STA 4173. Fixed-effects model, random-effects model, repeated measures design, logistic regression, survival analysis, Kaplan-Meier estimates, proportional hazards model.

## STA 5205 AS-STAT 3(3,0)

Experimental Design: PR: STA 4164, STA 5206 or ESI 5219. Construction and analysis of designs for experimental investigations. Blocking, randomization, replication; Incomplete block designs; factorial and fractional designs; design resolution.

## STA 5206 AS-STAT 3(3,0)

Statistical Analysis: PR: STA 2023; not open to students who have completed STA 4164. Data analysis; statistical models; estimation; tests or hypotheses; analysis of variance, covariance, and multiple comparisons; regression and nonparametric methods.

## STA 5505 AS-STAT 3(3,0)

Categorical Data Methods: PR: STA 4163 or STA 5206. Considers discrete probability distributions, contingency tables, measures of association, and advanced methods, including loglinear modeling, logistic regression, McNemar's Test, Mantel-Haenszel test.

## STA 5646 AS-STAT 3(3,0)

Casualty Insurance: PR: STA 4322 and STA 4641. Individual risk rating and classification of risk for property/casualty insurance. Re insurance and expense issues. Reserves for insurance and loss adjustment expenses. Investment income.

STA 5703 AS-STAT 3(3,0)
Data Mining Methodology I: PR: STA 5103 and STA 5206. Data mining to uncover valuable information through SEMMA (Sample, Explore, Model, Modify, and Access). Process with neural network and decision tree.

## STA 5825 AS-STAT 3(3,0)

Stochastic Processes and Applied Probability Theory: PR: STA 4321. Conditional probability and conditional expectations, sequences of random variables, branching processes, random walks, Markov chains, recurrent events, renewal theory, queueing theory, and simple stochastic processes.

STA 5931 AS-STAT 3(3,0)
Topics in Actuarial Science: PR: Senior status and 9 hours of actuarial science classes. Topic may include: survey of actuarial practices, financial mathematics, ruin theory, insurance law, advanced pension and disability actuarial methods.

STA 5940 AS-STAT $\mathbf{1}(1,0)$
Statistical Advice for Researchers: PR: C.I. Discussion of student-supplied statistical problem, data sources, sampling techniques, computer package usage, analysis, interpretation. May be repeated for credit.

Surveying: PR: MAC 2311 and Junior standing. Theory and field practice in surveying measurements and the reduction and adjustment of field data.

SYA 3110 AS-SOC/AN 3(3,0)
The Development of Social Thought: PR: SYG 2000. An overview of theories concerning the nature of man as a "social being." The nature of society from the beginnings of the scientific study of man's life to World War II.

## SYA 3120 AS-SOC/AN 3(3,0)

Modern Sociological Thought: PR: SYG 2000. A study of major European and American contributors to modern sociology since World War II.

SYA 3300 AS-SOC/AN 4(3,2)
Research Methods: PR: SYG 2000 and SYA 3400 (may be taken concurrently). Emphasis on types of sociological data collections, sampling techniques, grant proposal development, critical evaluation of social research, and relationship between theory and social research.

SYA 3400 AS-SOC/AN 4(3,1)
Research Methods and Statistics: PR: SYG 2000 and one other sociology course.
SYA 4450 AS-SOC/AN 4(3,2)
Data Analysis: PR: SYA 3300 and SYA 3400. Advanced social research design and analytical skills. Emphasis on social data management, various modes of social data analysis, interpretation, integration, presentation, and report writing.

## SYA 4650 AS-SOC/AN 3(2,2)

Applied Sociology: PR: SYG 2000 and SYO 3000. Examination of the utilization of sociological principles in the treatment of practical human problems and organization.

SYA 5625 AS-SOC/AN 3(3,0)
ProSeminar: Survey of conceptual issues, methodological concerns, and findings in substantive sociological areas that currently dominate scholarly inquiry, including such topics as crime, deviance, community, alcoholism, education.

SYA 5937 AS-SOC/AN 3(3,0)
Advanced Population: Examines the theories, methods, and information utilized by demographers and focuses on techniques of application of those skills.

SYD 3410 AS-SOC/AN 3(3,0)
Urban Sociology: PR: SYG 2000. Historical roots of urbanization. Analysis and impact of community change on social organizations in modern industrial societies.

SYD 3700 AS-SOC/AN 3(3,0)
Race and Ethnic Minorities in the United States: Theoretical analysis of the emergence, maintenance, and disruption of patterns of racial and ethnic stratification.

SYD 3750 AS-SOC/AN 3(3,0)
Contemporary Social Issues and North American Indians: PR: 2000 level social science or C.I. Examination of North American Indian sovereignty and current issues including economic development, education, freedom of religion, child welfare, federal/state/tribal relationships and environment.

SYD 3751 AS-SOC/AN 3(3,0)
North American Indian Women Today: PR: 2000 level social science course or C.I. Examination of works of modern North American Indian women within context of sovereign rights. Issues include myths, gender roles, coerced sterilization, child welfare, and economic opportunities.

SYD 3752 AS-SOC/AN 3(3,0)
Modern Law in Indian Country: PR: 2000 level social science course or C.I. Examination of impact of unique legal relationship between American Indian governments and state federal govern-ments. Legal issues include criminal justice, child welfare, and land ownership.

SYD 3800 AS-SOC/AN 3(3,0)
Sex Roles in Modern Society: The traditional and changing roles of women and men viewed in a sociological perspective.

SYD 4020 AS-SOC/AN 3(3,0)
Population: Concerned with the study of human population, its distribution, composition, and change.
SYD 5795 AS-SOC/AN 3(3,0)
Class, Race, and Gender in American Society: PR: Graduate Status or C.I. Using theoretical and empirical studies, this course will provide a sociological examination of the intersections of race, class, and gender in American society.

SYG 2000 AS-SOC/AN 3(3,0)
General Sociology: Introduction to the sociological perspective and the scientific study of sociological concepts, theories, processes, and methods used in understanding contemporary human behavior in group interaction.

## SYG 2000H AS-SOC/AN 3(3,0)

General Sociology: Extensive honors work in the field of Sociology. Expecta-tions, requirements, and standards are greater than for standard General Sociology.

SYG 2010 AS-SOC/AN 3(3,0)
Social Problems: Analysis of major social problems such as mental disorders, sexual deviance, racial
discrimination, poverty, community disorganization, and violence.
SYG 3949 AS-SOC/AN $\mathbf{0 ( 0 , 8 )}$
Cooperative Education in Sociology: PR: Departmental permission required before registering. Cooperative education experience in sociology. May be repeated. Graded S/U.

SYO 3000 AS-SOC/AN 3(3,0)
Modern Sociology: PR: SYG 2000. An in-depth exploration of contemporary sociology. Introduction to conceptual analysis and methodological techniques, presentation and utilization of sociological literature on major social institutions.

SYO 3360 AS-SOC/AN 3(3,0)
Social Organization and Human Relations: Analysis of business, government, and industrial organizations. Topics include organizational theory, social systems, social structure, effects of technology, motivation, leadership, decision-making, and human relations.

SYO 3410 AS-SOC/AN 3(3,0)
Sociology of Mental Illness: A sociolog-ical examination of mental illness as a social problem; legal aspects of mental illness, and the mental health professions.

## SYO 3530 AS-SOC/AN 3(3,0)

Social Stratification: PR: SYG 2000. Study of class, status and power, cultural variations in stratification systems; patterns of mobility and change.

## SYO 4100 AS-SOC/AN 3(3,0)

Family Trends: PR: SYG 2000. Study of intimate relationships, practices, trends and issues affecting today's marriages and families.

## SYO 4200 AS-SOC/AN 3(3,0)

Sociology of Religion: PR: SYG 2000 or C.I. The relationship between the relig-ious institution and social stratification, family, education, as well as issues per-taining to gender, race, ethnicity, and age.

## SYO 4250 AS-SOC/AN 3(3,0)

Sociology of Education: PR: SYG 2000. This course examines the sociological dimensions of the educational institutions, including the impact of the social structure on learning and the role of education in social change.

SYO 4300 AS-SOC/AN 3(3,0)
Political Sociology: Sociological analysis of political and parapolitical groups; socioeconomic variable of voting behavior, power elites; societies and systems of government.

SYO 4400 AS-SOC/AN 3(3,0)
Medical Sociology: Analysis of patient beliefs and behavior, health practitioners, the social
organization of hospitals and health services, contemporary problems in the delivery of health care.
SYP 3300 AS-SOC/AN 3(3,0)
Collective Behavior: PR: SYG 2000. Analysis of relatively unstructured social situations, such as mobs, crowds, etc. as well as more structured forms of collec-tive behavior such as social movements.

SYP 3400 AS-SOC/AN 3(3,0)
Social Change: PR: SYG 2000. Concern-ed with the context and essential sources of social development and change.

SYP 3510 AS-SOC/AN 3(3,0)
Sociology of Deviant Behavior: PR: SYG 2000 or C.I. Sociological examination of the types of, and societal reactions to, deviant behavior with special emphasis on stigmatization

## SYP 3511 AS-SOC/AN 3(3,0)

Sociology of Murder: PR: SYG 2000, Junior standing, or C.I. An analytical study of murder in the U.S.; topics include different types of homicides, offenders, victims, and circumstances.

## SYP 3520 AS-SOC/AN 3(3,0)

Criminology: Chief causes of anti-social behavior and current methods of prevention and reform. Effects of heredity and environment, prevalence of delinquency and crime, penal institutions.

## SYP 3530 AS-SOC/AN 3(3,0)

Juvenile Delinquency: Types of delin-quency behavior found among juveniles; possible causes and ways society attempts to treat the various forms of delinquency.

## SYP 3540 AS-SOC/AN 3(3,0)

Sociology of Law: The relationship between law and society, including the functions of law and its organization, social and economic consequences, jury selection, and modern trends.

SYP 3551 AS-SOC/AN 3(3,0)
Sociology of Alcoholism: Introduction to the nature of alcoholism and review of its impact on society.

## SYP 3602 AS-SOC/AN 3(3,0)

Sociology of Popular Music: This course examines the role of popular music in the process of social change and in reflecting American culture. Consideration is given to the nature of the popular music business.

SYP 3630 AS-SOC/AN 3(3,0)
Sociology of Popular Culture: PR: Junior Standing or C.I. Examines the relationship between contemporary popular culture and social institutions, collective identities, social change, gender, ethnicity and age.

Sociology and Sport: Utilization of sociological concepts and theories to investigate sport as a social institution. Includes subjects of racism, sexism, drug abuse, violence, and current issues of sport.

SYP 4000 AS-SOC/AN 3(3,0)
Sociological Social Psychology: PR: SYG 2000. Study of social perception, attitude formation and change, motivation, and decision-making in small groups as affected by social interaction and social processes.

SYP 4004 AS-SOC/AN 3(3,0)
Constructing Social Issues: PR: SYG 2000 or C.I. Sociological examination of social problems as an emergent process that involves collective definitions and legitimating organizations. Topics include deviance, race, gender and popular culture.

SYP 4323 AS-SOC/AN 3(3,0)
Social Systems and Diversity: PR: SYG 2000, junior standing. The formation of social systems in response to social problems and the implementation of public policy. Emphasis on diverse perspectives and ethical positions and their effect on the form and effectiveness of social systems.

SYP 4514 AS-SOC/AN 3(3,0)
Sociology of Violence: PR: SYG 2000 or C.I. Social roots, culture, circumstances, prevention, and control of violence.

## SYP 4521 AS-SOC/AN 3(3,0)

Criminal Victimization in Society: PR: SYG 2000, Junior standing, or C.I. A study of crime victims in society; topics include issues related to victimology such as victimization risks and societal treatment of victims

## SYP 4536 AS-SOC/AN 3(3,0)

Gangs and Society: PR: SYG 2000, Junior Standing, or C.I. A study of gangs in the U.S.; topics include types of gangs, gang members, activities, group processes, and societal responses to gangs

SYP 4550 AS-SOC/AN 3(3,0)
Sociology of Drug Abuse: Analysis of the socio-cultural elements of the drug culture.
SYP 4730 AS-SOC/AN 3(3,0)
Sociology of Aging: Sociological aspects of aging in America.
SYP 4734 AS-SOC/AN 3(3,0)
Minority Aging: PR: SYG 2000 or SYD 3700 or SYP 4730 or C.I. A sociological examination of older populations within minorities: ethnic minorities, women, and gay men and lesbians.

Women in Contemporary Society: PR: SYG 2000 or WST 3015. Examination and evaluation of the status of women in the context of the major social institutions (e.g., family, education, religion, economy and polity.)

SYP 4813 AS-SOC/AN 3(3,0)
Women and Social Policy: PR: SYG 2000 or C.I. The process of social movements and how they impact legalized social norms for women in public and private life.

## SYP 5005 AS-SOC/AN 3(3,0)

Sociological Social Psychology: PR: regular graduate standing. An exploration of socialogical social psychological theories and their application in understanding the effects of society and groups on the individual.

SYP 5526 AS-SOC/AN 3(3,0)
Sociological Criminology: PR: Graduate Standing or C.I. To examine current sociological knowledge and research on various issues in Criminology, and to further students' skills in developing/ conducting research projects.

SYP 5562 AS-SOC/AN 3(3,0)
Seminar on Domestic Violence: Theory, Research and Social Policy: PR: Graduate status or C.I. A sociological examination and evaluation of theories, empirical research and social policy related to the study of domestic violence.

SYP 5738 AS-SOC/AN 3(3,0)
Seminar on the Welfare State \& Aging: PR: Graduate standing or C.I. A sociological examination of old policies from a cross-cultural perspective.

Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

## TAX 2000 BA-ACCT 3(3,0)

Personal Income Tax: A study of federal income tax designated to convey basic tax concepts and skills related to the individual taxpayer. Not open to accounting majors.

## TAX 4001 <br> BA-ACCT <br> 3(3,0)

Federal Income Tax I: PR: Junior standing and ACG 3101 with a grade of "C" or better or C.I. Concepts and methods of determining taxable income of individuals, and selected topics.

TAX 5015 BA-ACCT 3(3,0)
Federal Income Tax II: PR: ACG 3111, TAX 4001, and meet graduate school admission requirements. Concepts and methods of determining taxable income for partnerships and corporations, and selected topics.

THE 1020 AS-THEA 3(3,0)
Theatre Survey: Overview of the art and craft of the theatre. Restricted to non majors.
THE 1020H AS-THEA $\mathbf{3}(\mathbf{3}, \mathbf{0})$
Theatre Survey - Honors: PR: Honors student. Not restricted to theatre majors. Honors-level overview of the art and craft of the theatre.

THE 2000 AS-THEA 3(3,0)

Survey of Theatre: PR: Theatre major or departmental consent. Overview of the art and craft of theatre.

THE 2090 AS-THEA $\mathbf{1}(0,20)$
Theatre Production/Performance I: PR: B.A. Theatre major or C.I. Non-majors require departmental permission. Participation in UCF Theatre productions. Required of all BA theatre majors.

THE 2091 AS-THEA $\mathbf{1}(0,20)$
Theatre Production/Performance II: PR: THE 2090, B.A. Theatre major or C.I. Participation in UCF Theatre productions. Required of all BA theatre majors. Not restricted to theatre majors, but requires departmental consent

## THE 2261 AS-THEA 3(3,3)

Technical Theatre Production: PR: THE 1020 or THE 2000. Restricted to B.A. Theatre and B.F.A. Musical Theatre majors. The history, theory and practice of all areas of technical theatre produc-tion. Required of all BA theatre majors.

THE 2271 AS-THEA 3(3,0)
Performance Studies: PR: THE 1020 or THE 2000. Restricted to B.A. Theatre majors. Techniques, theories, practices, and training of the acting profession from Greek to modern performance art.

THE 3092 AS-THEA $\mathbf{1}(0,20)$
Theatre Production/Performance III: PR: THE 2091, B.A. Theatre major or C.I. Participation in UCF Theatre productions. Required of all BA theatre majors. Not restricted to theatre majors, but requires departmental consent

## THE 3110 AS-THEA 3(3,0)

Theatre History I: PR: THE 1020 or THE 2000, and THE 3303 or TPP 3650, Theatre majors or departmental consent. The development of theatre arts from prehistory through the seventeenth century.

THE 3111 AS-THEA 3(3,0)
Theatre History II: PR: THE 3110, THE 3305. Theatre major or departmental consent. Theatre arts from the seventeenth century to the present.

THE 3230 AS-THEA 3(3,0)
Commonality within Cultural Diversity Experienced through Theater: PR: THE 1020 or THE 2000. Through the study of dramatic literature, this course explores the commonality of human experience among various cultural groups.

THE 3240 AS-THEA 3(3,0)
Musical Theatre Survey: PR: THE 1020 or THE 2000. American musical theatre with emphasis on
the great composers, lyricists, designers, and directors of the evolution of musical theatre.
THE 3243 AS-THEA 3(3,0)
Musical Theatre Survey: A study of the American Musical Theatre as a unique dramatic form. A critical view of its elements, structure, content, and its historical development.

THE 3303 AS-THEA 3(3,0)
Play Analysis : PR: Restricted to B.A. Theatre majors or departmental consent. A lecture course providing an overview of different elements found in the world of the play and the written text. Emphasis on theory and structure.

## THE 3305 AS-THEA 3(3,0)

Dramatic Literature I: PR: THE 2000 or THE 1020, THE 3303 or TPP 3650, Theatre major or departmental consent. Playscripts from Sophocles to Jonson.

THE 3306 AS-THEA 3(3,0)
Dramatic Literature II: PR: THE 3305, THE 3110. Restricted to Theatre majors or departmental consent. Playscripts from Restoration to Mid-20th Century.

## THE 4093 AS-THEA $\mathbf{1 ( 0 , 2 0 )}$

Theatre Production/Performance IV: PR: THE 3092, B.A. Theatre major or C.I. Participation in UCF Theatre productions. Required of all BA theatre majors. Not restricted to theatre majors, but requires departmental consent

THE 4094 AS-THEA $\mathbf{1}(0,20)$
Theatre Production/Performance V: PR: THE 4093, B.A. Theatre major or C.I. Participation in UCF Theatre productions. Required of all BA theatre majors. Not restricted to theatre majors, but requires departmental consent

## THE 4096 AS-THEA $\mathbf{1 ( 0 , 2 0 )}$

Theatre Production/Performance VI: PR: THE 4094, Theatre Major or C.I. Participation in UCF Theatre productions. Not restricted to Theatre majors but requires departmental consent.

THE 4097 AS-THEA $\mathbf{1}(0,20)$
Theatre Production/Performance VII: PR: THE 4096, Theatre Major or C.I. Participation in UCF Theatre productions. Not restricted to Theatre majors but requires departmental consent.

THE 4098 AS-THEA $\mathbf{1}(0,20)$
Theatre Production/Performance VIII: PR: THE 4097, Theatre Major or C.I. Participation in UCF Theatre productions.

THE 4372 AS-THEA 3(3,0)
Theatre/Drama of Tennessee Williams: PR: THE 3110, THE 3305, or C.I. Study of Tennessee

Williams from a literary, performance, and historical view.
THE 5307 AS-THEA 3(3,0)
Contemporary Theatre Practice: PR: THE 3110, THE 3111, THE 3306, Restricted to Theatre majors or departmental consent. Contemporary trends in plays and theatre production in the late 20th century.

## TPA 2210 AS-THEA 3(3,6)

Stagecraft I: PR: THE 1020 or THE 2000, Restricted to Theatre majors or departmental consent. History, theory, and practice of technical theatre production. Production crew required. Required of all B.F.A. Theatre majors.

TPA 2211 AS-THEA 3(3,6)
Stagecraft II: PR: THE 1020 or THE 2000, TPA 2210, Restricted to B.F.A. Theatre majors. Continuation of TPA 2210. Production crew as required.

TPA 2220 AS-THEA $\mathbf{3}(2,2)$
Stage Lighting: PR: TPA 2211. Restricted to B.F.A. Theatre majors or B.A. Theatre majors with Departmental consent. Study of basic electricity, optics, lighting equipment and control, and stage lighting techniques and practices. Service on a lighting crew as required. Required of all technical theatre/design majors.

TPA 2248C AS-THEA 2(2,2)
Makeup Techniques: PR: THE 2000 or THE 1020. Theatre B.F.A. major or departmental consent. Theory and practice of stage makeup.

TPA 2290 AS-THEA $\mathbf{1}(\mathbf{0}, 20)$
Theatre Production/Performance I: PR: Not restricted to Theatre majors but requires Departmental consent. Participa-tion in Theatre Production. Required of all B.F.A. technical theatre/design majors.

## TPA 2291 AS-THEA $\mathbf{1}(0,20)$

Theatre Production/Performance II: PR: TPA 2290, open to non-Theatre majors with Departmental consent. Participation in Theatre Production. Required of all B.F.A. technical theatre/design majors.

## TPA 3040 AS-THEA 3(2,2)

Costume Design: PR: TPA 3230, TPA 3044C and two semesters of art. Restricted to B.F.A. Theatre majors. Lecture/laboratory application of the fundamentals of design, composition, color theory, and figure drawing as they relate to costume design. Includes script/character analysis and project design work with an emphasis on visualization of design concepts and costume renderings. Required of all B.F.A. technical theatre/design majors.

TPA 3043C AS-THEA 3(3,1)
Costume History I: PR: THE 3110, Theatre major or departmental consent. Costume fashion from
ancient Egypt to the mid 17th century, including basic period silhouette, costume parts and accessories.

## TPA 3044C AS-THEA 3(3,1)

Costume History II: PR: TPA 3043C, Restricted to Theatre majors or departmental consent. Costume Fashion from the mid 17th century to the present, including basic period silhouette, costume parts and accessories.

## TPA 3060 AS-THEA 3(2,2)

Scenic Design I: PR: TPA 2211, THE 3303 or TPP 3650, and one semester of art. Restricted to B.F.A. Theatre majors or B.A. Theatre majors with departmental consent. Lecture/laboratory application of the fundamentals of design, composition, color theory, drafting, perspective drawing, and rendering as they relate to scenic design. Required of all technical theatre/design majors.

TPA 3061 AS-THEA 3(2,2)
Scene Design II: PR: TPA 3060. Res-tricted to B.F.A. technical Theatre/design majors or Departmental consent. Contin-uation of TPA 3061. An intensive, prac-tical scenic design course dealing, with various theatrical styles, genres, multiple and simultaneous settings. Includes script analysis and project design work with an emphasis on visualization of design concepts through models and scenic renderings. Required of all B.F.A. technical theatre/design majors.

## TPA 3077 AS-THEA 2(2,2)

Scene Painting: PR: TPA 2211. Restricted to B.F.A. technical Theatre design majors or Departmental consent. Study of the art and craft of painting for the theatre. Research into period designs and execution of examples selected from a variety of styles. Required of all B.F.A. technical theatre/ design majors.

TPA 3197 AS-THEA 3(0,30)
Summer Theatre Studio/Tech/Design: PR: Departmental consent. Production assignments and responsibilities during the rehearsals/performances of play scripts produced on the UCF mainstage. May be repeated for credit.

## TPA 3208 AS-THEA 2(2,2)

Theatre Drafting: PR: TPA 2210. The fundamentals of hand drafting in theatre design and production

TPA 3216C AS-THEA 3(3,4)
Stagecraft III: PR: TPA 2211, BFA Design/tech or Stage Management major. A continuation of TPA 2211 with emphasis on special projects.

TPA 3221 AS-THEA 3(2,2)
Lighting Design: PR: TPA 2220 and TPA 3060. Restricted to B.F.A. Theatre majors or B.A. Theatre majors with departmental consent. Continuation of Stage TPA 2220. Lecture/laboratory with emphasis on lighting design theory, style and individual lighting design projects. Required of all B.F.A.
technical theatre/ design majors.
TPA 3230 AS-THEA 3(2,2)
Costume Construction: PR: TPA 2210 or THE 2261. Restricted to B.F.A. Theatre majors or B.A. Theatre majors with Departmental consent. Lecture/laboratory study of the basic techniques used in the drafting, cutting, fitting, and construction of stage costumes. Required of all technical theatre/design majors.

## TPA 3249 AS-THEA 2(2,2)

Advanced Makeup Techniques: PR: TPA 2248C. Restricted to B.F.A. Theatre majors or departmental consent. Lecture/laboratory study of basic techniques needed for the creation of stage and film prosthetics and masks.

## TPA 3250 AS-THEA 2(2,0)

CADD for Theatre: PR: TPA 3208. Restricted to B.F.A. Theatre majors or departmental consent. Projects oriented course covering fundamental material in computer aided drafting and design and its application for Theatre. Required of all technical theatre/design majors.
TPA 3251 AS-THEA 2(2,0)

Advanced CADD for Theatre: PR: TPA 3250. Restricted to B.F.A. Theatre majors or Departmental consent. Continuation of TPA 3250 with special emphasis placed on 3-Dimensional aspects and applications of computer aided drafting and design for Theatre.

TPA 3260 AS-THEA $3(3,0)$
Sound Design For the Theatre: PR: THE 1020 or THE 2000, TPA 2211. Restricted to Theatre majors or departmental consent. Exploration of the aesthetic and technological aspects of sound as they relate to the art and craft of theatre majors.

TPA 3295 AS-THEA 3(0,30)
Theatre Studio/Tech/Design: PR: Junior standing, Theatre major or C.I. Study, analysis and execution of technical/design aspects for playscripts produced on UCF mainstage. May be repeated for credit.

## TPA 3401 AS-THEA 3(3,0)

Theatre Careers for Tech/Manage-ment: PR: B.F.A. Theatre majors, Junior standing. Exploration and assimilation of successful marketing techniques needed to secure employment in Theatre or related segments of the entertainment industry.

## TPA 3601 AS-THEA 2(3,0)

Stage Management: PR: TPP 2110, THE 3303 or TPP 3650, TPA 2211 or THE 2261. Restricted to Theatre majors or departmental consent. Examination of the importance, function, and responsibilities of the stage manager prior to, during and after performance. Introduction to the fundamentals of stage management as related to Departmental productions as well as professional union requirements. Required of all B.F.A. Stage Management majors.

Costume Design II: PR: TPA 3040. A continuation of Costume Design I. Costume Design including research, color, body types, and fabric to generate costume design sketches for theoretical play productions.

TPA 4293 AS-THEA $\mathbf{1}(\mathbf{0}, 20)$
Theatre Production/Performance III: PR: TPA 2291. Restricted to Theatre majors or departmental consent. Participation in UCF Theatre Productions. Required of all B.F.A. Technical Theatre/Design majors.

TPA 4294 AS-THEA $\mathbf{1 ( 0 , 2 0 )}$
Theatre Production/Performance IV: PR: TPA 4293. Participation in UCF Theatre productions. Required of all BA theatre majors. Not restricted to theatre majors, but requires departmental consent

## TPA 4295 AS-THEA $\mathbf{1 ( 0 , 2 0 )}$

Theatre Production/Performance V: PR: TPA 4294. Participation in UCF Theatre productions. Required of all BA theatre majors. Not restricted to theatre majors, but requires departmental consent

## TPA 4296 AS-THEA $\mathbf{1 ( 0 , 2 0 )}$

Theatre Production/Performance VI: PR: TPA 4295, Restricted to Theatre majors or departmental consent. Participation in UCF Theatre productions. Required of all B.F.A. Design/Tech and Stage Management majors.

TPA 4297 AS-THEA $\mathbf{1}(0,20)$
Theatre Production/Performance VII: PR: TPA 4296, Restricted to Theatre majors or departmental consent. Participation in UCF Theatre productions. Required of all B.F.A. Design/Tech and Stage Management majors.

## TPA 4298 AS-THEA $\mathbf{1}(0,20)$

Theatre Production/Performance VIII: PR: TPA 4297, Restricted to Theatre majors or departmental consent. Participation in UCF Theatre productions. Required of all B.F.A. Design/Tech and Stage Management Theatre majors.

TPA 4400 AS-THEA $3(3,0)$
Theatre Management: PR: TPA 2211, THE 2261. Restricted to theatre majors or Departmental consent. Study of the development, organization, management, funding, and promotion of theatre programs. Additional emphasis placed on management theory and style.

## TPA 4602 AS-THEA $2(3,0)$

Advanced Stage Management: PR: TPA 3601, B.F.A. Stage Management major. Skills necessary for stage managers in contemporary entertainment.

Technical Theatre/Design Internship: PR: Restricted to B.F.A. Technical Theatre/design and Stage Management majors. The internship is subject to Departmental approval. Off-campus internship programs provide opportunity for practical work in professional theatre. Contact the Departmental office for specific requirements.

## TPP 1312C AS-THEA 3(2,15)

Workshop Studio Theatre: PR: TPP 3172C, TPP 2191, TPP 3310C, TPA 3601, and a grade of "A" in TPP 4311. Restricted to Theatre majors or departmental consent. Exploring the various aspects of mounting a one-act play, including play analysis, research, staging techniques, and other areas of directing for advanced directors. May be repeated for credit.

TPP 2110 AS-THEA 3(3,0)
Acting I - Introduction: PR: B.F.A. theatre major. CR: TPP 3650, DAA 2200C, THE 1020 or THE 2000, TPP 2170C or MUT 1001. The fundamentals of acting with emphasis upon the development of imagination, self-awareness, and the ability to execute basic stage tasks.

TPP 2170C AS-THEA 3(2,2)
Acting II - Fundamentals: PR: TPP 2110, DAA 2200C, TPP 3650, THE 1020 or THE 2000, TPP 2710C or MUT 1001, B.F.A. Theatre Performance/Musical Theatre major. The basic techniques of acting, with emphasis on characterization and character development.

## TPP 2185 AS-THEA 3(3,0)

Acting for Non-majors: Basic introduction to the fundamentals of acting with emphasis upon the development of imagination, self-awareness, sense, memory, improvisation, and the ability to execute basic stage tasks.

TPP 2190 AS-THEA $\mathbf{1}(\mathbf{0}, 20)$
Theatre Production/Performance I: PR: Not restricted to Theatre majors but requires departmental consent. Participa-tion in UCF Theatre Productions. Required of all B.FA. theatre performance majors.

## TPP 2191 AS-THEA $\mathbf{1 ( 0 , 2 0 )}$

Theatre Production/Performance II: PR: TPP 2190. Not restricted to Theatre majors but requires Departmental consent. Participation in UCF Theatre Productions. Required of all B.F.A. theatre performance majors.

TPP 2710C AS-THEA 2(2,2)
Voice Production I: CR: THE 1020, TPP 2110, DAA 2200C, TPP 3650. B.F.A. theatre major. The principles and practice of the effective speaking or stage voice.

TPP 3172C AS-THEA 3(2,2)
Acting III - Characterization: PR: TPP 2170C, DAA 2201C, THE 1020 or THE 2000, TPP 3650, TPP 3711C or TPP 3257, or B.F.A. Theatre Performance majors. Advanced work in characterization, character development, and basic audition processes.

Theatre Production/Performance III: PR: TPP 2191. Not restricted to Theatre majors but requires departmental consent. Participation in UCF Theatre productions. Required of all B.F.A. Theatre performance majors.

TPP 3197 AS-THEA $\mathbf{3 ( 0 , 3 0 )}$
Summer Theatre/Performance: PR: Open to non-Theatre majors with departmental consent. Production assignments and responsibilities during the rehearsals/performances of play scripts produced on the UCF mainstage. May be repeated for credit.

TPP 3223 AS-THEA 3(3,0)
Theatre Careers for Performance: PR: B.F.A. Theatre major, Junior standing. Exploration and assimilation of successful marketing techniques needed to secure employment in Theatre or related segments of the entertainment industry

TPP 3241 AS-THEA 3(3,0)
Survey of Musical Theatre I: PR: Theatre majors or departmental consent, TPP 3650, THE 1020 or THE 2000, THE 3110, TPP 3257. The origin and development of musical theatre up to and including the work of Frank Loesser.

TPP 3250 AS-THEA 3(3,0)
Musical Theatre Acting/Performance I: PR: B.F.A. Theatre major, DAA 3172C, TPP 3172C, TPP 3258. Practical acting technique for the performance of musical theatre repertoire with the interpretation of text and music.

TPP 3252 AS-THEA 3(3,0)
Musical Theatre Acting Performance II: PR: Theatre majors or departmental consent, TPP 3250, TPP 3257. Continuation of acting techniques for the performance of musical theatre repertoire. Covers Rogers and Hammerstein through Bock and Harnick.

## TPP 3257 AS-THEA 2(2,2)

Musical Theatre Voice I: PR: TPP 2710C. The vocal technique and reper-toire knowledge necessary for a career on the musical theatre stage, emphasizing breath control, diction, tone production, the stage belt voice and proper resonation. May be repeated for credit.

TPP 3258 AS-THEA 2(2,2)
Musical Theatre Voice II: PR: TPP 3257. Provides theatre students with the vocal technique and knowledge of repertoire necessary for a career on the musical theatre stage. May be repeated for credit.

## TPP 3310C AS-THEA 3(2,2)

Directing I: PR: THE 3111, THE 3306, Junior standing, Theatre major. Principles and techniques of play direction to include script selection, directorial analysis, casting, composition/ picturization,
blocking, tempo, and rehearsal planning.
TPP 3512C AS-THEA 2(2,2)
Stage Combat: PR: TTP 3172C, THE 3110, DAA 2570C, B.F.A. theatre performance majors. Stage combat with emphasis on hand to hand combat/sword/epee and rapier fighting.

TPP 3650 AS-THEA 3(3,0)
Script Analysis: PR: Restricted to B.F.A. Theatre majors. Exploration of dramatic form and structure by learning to read, analyze, and understand playscripts for productions. The study of the playscript as a blueprint for production. Required of all B.F.A. Theatre majors.

## TPP 3711C AS-THEA 2(2,2)

Voice Production II: PR: TPP 2110, TPP 2710C, DAA 2200C, TPP 3650, B.F.A. performance major. Continuation of Voice Production I; correct speech on the stage, intensified study of phonetics.

TPP 3712C AS-THEA 2(2,2)
Voice Production III: PR: TPP 2170C, TPP 3711C, DAA 2201C, TPP 3650, THE 1020 or THE 2000, B.F.A. Theatre Performance major. Continuation of Voice Production II; emphasis on study of Shakespeare and heightened language.

TPP 3730C AS-THEA 2(2,2)
Voice Production IV: PR: TPP 3712C, or TPP 4142C or TPP 3258, B.F.A. Theatre Performance or Musical Theatre majors. Continuation of Voice Production III;, the analysis and sounds of foreign dialects and regional accents; study of stage voice for age and character roles.

## TPP 3952 AS-THEA 3(0,30)

Studio Performance: PR: Junior standing or C.I. Not restricted to Theatre majors but requires department consent. Studio performance provides the specific application of the theatre artist's training to full scale theatre productions. May be repeated for credit.

## TPP 4140C AS-THEA 3(2,2)

Acting IV - Studio: PR: THE 3110, THE 3305, TPP 3172C, DAA 2200C, TPP 4142C, TPA 2210, B.F.A. Theatre Performance major. Various acting styles and plays from the classical era through post-realism.

TPP 4142C AS-THEA 3(2,2)
Acting V - Verse: PR: THE 3110, THE 3305, TPP 3172C, TPP 3712C, DAA 2570C, B.F.A. Theatre Performance major. Verse drama with particular emphasis placed on scansion and verse in the plays of William Shakespeare.

TPP 4193 AS-THEA $\mathbf{1}(0,20)$
Theatre Production/Performance IV: PR: TPP 3192. Not restricted to Theatre majors but requires Departmental consent. Participation in UCF Theatre productions. Required of all B.F.A. theatre
performance majors.
TPP 4194 AS-THEA $\mathbf{1 ( 0 , 2 0 )}$
Theatre Production/Performance V: PR: TPP 4193. Participation in UCF Theatre productions. Required of all B.F.A. performance majors. Not restricted to theatre majors, but requires departmental consent.

## TPP 4195 AS-THEA 1(0,20)

Theatre Production/Performance VI: PR: TPP 4194. Participation in UCF Theatre productions. Required of all B.F.A. performance majors. Not restricted to theatre majors, but requires departmental consent.

TPP 4196 AS-THEA $\mathbf{1}(0,20)$
Theatre Production/Performance VII: PR: TPP 4195. Participation in UCF Theatre productions. Required of all B.F.A. performance majors. Not restricted to theatre majors, but requires departmental consent.

TPP 4198 AS-THEA $\mathbf{1 ( 0 , 2 0 )}$
Theatre Production/Performance VIII: PR: TPP 4196. Participation in UCF Theatre productions. Required of all B.F.A. performance majors. Not restricted to theatre majors, but requires departmental consent.

TPP 4221 AS-THEA 3(3,0)
Auditioning: PR: Sr. standing in BFA performance or musical theatre. Selecting monologues, auditioning techniques and cold readings.

TPP 4242 AS-THEA $\mathbf{3}(3,0)$
Survey of Musical Theatre II: PR: Theatre majors or departmental consent, TPP 3258, TPP 3241. A continuation of Survey of Musical Theatre I from Leonard Bernstein to current styles.

TPP 4253 AS-THEA $3(3,0)$
Musical Theatre Acting Performance III: PR: Theatre majors or departmental consent, TPP 3252, TPP 3258. Advanced work in characterization and the audition process. Covers repertory from Bock and Harnick through current styles of musical theatre.

TPP 4254 AS-THEA 3(3,0)
Musical Theatre Acting Performance IV: PR: Theatre majors or departmental consent, TPP 4253. Continuation of advanced study for performance on the musical theatre stage. Emphasis placed on show preparation and the rehearsal process.

## TPP 4255 AS-THEA 3(3,0)

Musical Theatre Cabaret: PR: Theatre majors or departmental consent, TPP 4254. Theatre cabaret is a training and rehearsal class for a Theatre department performing ensemble presenting full
productions for community outreach performances.
TPP 4265C AS-THEA 3(3,2)
Acting VI - Acting for TV/Film: PR: TPP 4140C, TPP 4142C, TPP 4531C, TPP 3730C. Restricted to B.F.A. Theatre Performance majors. Lecture/laboratory study designed to expose the student to practical techniques of television and film acting. Extensive studio work.

TPP 4311 AS-THEA 3(2,2)
Advanced Directing: PR: TPP 3172C, TPP 2191, TPP 3712C, TPP 3310C (with an 'A' grade in TPP 3310C). Restricted to B.F.A. Theatre performance majors. Experience as a stage manager and directorial assistant for Departmental mainstage productions and Departmental consent. Practical experience directing Workshop Theatre production.

## TPP 4531C AS-THEA 2(2,2)

Period Movement: PR: TPP 4142C or TPP 3250, TPP 3512C or DAA 2571C, B.F.A.
Performance/Musical Theatre major. Continuation of Movement/Dance work. Emphasis given to period movement styles and dance.

TPP 4940 AS-THEA $\mathbf{6}(0,40)$
Theatre Performance Internship: PR: Restricted to B.F.A. Theatre performance majors, the internship is subject to Departmental approval. Off-campus internship programs provide opportunity for practical work in professional theatre. Contact the Departmental office for specific requirements. Required of all B.F.A. theatre performance majors.

TSL 4080 ED-IP 3(3,0)
Teaching Limited English Proficient Children: PR: Junior standing or C.I. Development of awareness and basic competence in applying linguistic and cultural awareness about limited English proficient children to the instruction of the basic subjects through appropriate strategies. Graded S/U.

TSL 5143 AS-LANG 3(3,0)
ESOL Strategies: This course will survey cross-cultural communication and understanding, testing and evaluation, curriculum and methods of teaching ESOL to meet the needs of limited English proficient students.

TSL 5345 ED-IP 3(3,0)
Methods of ESOL Teaching: This course is designed to develop understand-ing, knowledge and skills of the current methods used in the teaching of ESOL.

TSL 5525 ED-IP 3(3,0)
ESOL Cultural Diversity: This course is designed to identify major cultural groups represented by the LEP population in Florida schools and to understand their special needs.

Issues in TEFL: PR: CI. Address issues specifically related to TEFL, such as materials adaptation, teaching in multi-level classrooms, learning styles, cultural issues, and curriculum syllabus design.

TTE 4004 ECS-CEE $\mathbf{4}(4,0)$
Transportation Engineering: PR: EGN 3613 and STA 3032. Investigation of highway, rail, water, and transportation systems. Systems approach to planning, design, construction, operation and administration of transportation networks.

TTE 4601C ECS-CEE 3(2,2)
Urban Systems Design: PR: TTE 4004. Project course on design of transportation and urban systems using engineering design methodologies.

TTE 5204 ECS-CEE 3(3,0)
Traffic Engineering: PR: TTE 4004. Study of operator and vehicle characteristics, and design for street capacity, signals, signs, and markings.

TTE 5205 ECS-CEE 3(3,0)
Highway Capacity and Traffic Flow Analysis: PR: TTE 4004. Highway capacity for all functional classes of highway. Traffic signalization including traffic studies, warrants, cycle length, timing, phasing and coordination.

TTE 5256 ECS-CEE 3(3,0)
Traffic Operations: PR: TTE 4004 or C.I. Fundamental theories and applications of traffic movements on streets and highways.

TTE 5700 ECS-CEE 3(3,0)
Railroad Engineering: PR: TTE 4004 and C.I. The major technical factors in location, construction, maintenance, and operation of railroad transportation systems.

TTE 5805 ECS-CEE 3(3,0)
Geometric Design of Transportation Systems: PR: TTE 4004. Study of geometric and construction design elements in the engineering of transportation systems.

TTE 5835 ECS-CEE 3(3,0)
Pavement Design: PR: CEG 4101C. Pavement types, wheel loads, stresses in pavement components; design factors such as traffic configurations, environment, and economy.
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Course Descriptions

## ALPHABETICAL LISTING OF COURSES BY PREFIX

## Course Home $|\underline{\mathrm{A}}| \underline{\mathrm{B}}|\underline{\mathrm{C}}| \underline{\mathrm{D}}|\underline{\mathrm{E}}| \underline{\mathrm{F}}|\underline{\mathrm{G}}| \underline{\mathrm{H}}|\underline{\mathrm{I}}| \underline{\mathrm{J}}|\underline{\mathrm{L}}| \underline{\mathrm{M}}|\underline{\mathrm{N}}| \underline{\mathrm{P}}|\underline{\mathrm{R}}| \underline{\mathrm{S}}|\underline{\mathrm{T}}| \underline{\mathrm{V}}|\underline{\mathrm{W}}| \underline{\mathrm{Z}}$

## Finding a Course in this List

The UCF courses in this section are listed alphabetically by prefix. Consult the "Common Course Numbering System" section of this Undergraduate Catalog for additional information.

## Availability of Courses

The University does not offer all of the courses listed in this Undergraduate Catalog each academic year, semester, or term. Consult the online Class Schedule at http://ClassSchedule.ucf.edu for those courses offered each semester/term.

## VIC 3001 AS-R/TV 3(3,0)

Visual Communication: A study of the visual system of man and the influences of the visual media on modern society.

WOH 2012 AS-HIST 3(3,0)
World Civilization I: A topical approach to the study of the rise and decline of world civilizations from the first attempts to the great civilizations of medieval times.

## WOH 2012H AS-HIST

World Civilization I - Honors: PR: Honors Program. The rise and decline of world civilizations from antiquity to the great civilizations of medieval times. Honors content.

WOH 2022 AS-HIST 3(3,0)
World Civilization II: Rise of modern civilization from 1500 to the present, with an emphasis on the confrontation between the Western and non-Western spheres of civilization.

## WOH 2022H AS-HIST <br> 3(3,0)

World Civilization II - Honors: PR: Honors Program. Rise of modern civilization from 1500 to the present, with an emphasis on the confrontation between the Western and non-Western spheres of civilization. Honors content.

Introduction to Women's Studies: PR: ENC 1102 or C.I. Interdisciplinary course introducing students to key issues and problems regarding women and gender relations in past and present societies.

WST 3930H AS-WOM 3(3,0)
Honors Undergraduate Thesis I: PR: Honors Program.
WST 4002 AS-WOM 1(1,0)
Researching Women and Gender: PR: WST 3015 or CI. Introduces students to scholars and research in a variety of areas pertaining to the study of women and gender relations.

WST 4903H AS-WOM 3(3,0)
Honors Directed Readings I: PR: Honors program.
WST 4904H AS-WOM 3(3,0)
Honors Directed Readings II: PR: Honors Program.
WST 4970H AS-WOM 3(3,0)
Honors Undergraduate Thesis II: PR: Honors Program.
WST 5347 AS-WOM 3(3,0)
Research Seminar in Gender Studies: PR: graduate student or post baccalaureate status. Research seminar exploring relationships among feminist theorizing, research, and social change, the development of gender studies programs and their relationships to other academic disciplines.

ZOO 2303C AS-BIOL 4(2,6)
Vertebrate Zoology: PR: BSC 2010C and BSC 2011C, or C.I. Evolution and classification followed by an introduction to vertebrate ecology, natural history, and behavior.

ZOO 3701C HPA-M\&M 2(1,2)
Dissection Techniques: PR: ZOO 3733. A course designed to focus on select dissection techniques to aid students in the preparation of three-dimensional prosection material (specimens).

ZOO 3713C AS-BIOL 5(3,6)
Comparative Vertebrate Anatomy: PR: BSC 2010C and BSC 2011C, or C.I. The vertebrate animals, relationships of organs and systems, and their phylogenetic significance.

## ZOO 3733C HPA-M\&M 4(3,3)

Human Anatomy: PR: BSC 2010C or equivalent. Structure of the human body.

Exercise Physiology Anatomy: PR: BSC 2010C, CI. Gross anatomy for exercise physiology majors. ZOO 4205C AS-BIOL 4(3,3)

Biology and Ecology of Metazoan Invertebrates: PR: BSC 2010C, BSC 2011C, PCB 3034 or C.I. Anatomy, ecology, taxonomy, behavior, evolution, and parasitological relations of the radiates, bilateria, acoelous, pseudocoelous, schizocoelous, and enterocoelous invertebrates.

## ZOO 4310C AS-BIOL 4(2,6)

Vertebrate Evolution \& Ecology: PR: BSC 2010C, BSC 2011C, PCB 3034, PCB 3063 or C.I. Vertebrate evolution and ecology, based on the paleontological and ecological literature. The laboratory places heavy emphasis on classification/ identification and field work.

ZOO 4603C AS-BIOL 5(3,4)
Embryology/Development: PR: PCB 3063 and PCB 3023 or PCB 3523 or C.I. Concepts of developmental processes. Emphasis on mechanisms underlying vertebrate development.

## ZOO 4744 HPA-M\&M 3(3,0)

Neurobiology: PR: BSC 2010. Biological principles governing the physiology of the nervous system including electrical properties, chemical signaling, cellular composition, development, injury and regeneration.

## ZOO 4753C HPA-M\&M 4(3,3)

Vertebrate Histology: PR: ZOO 3733C. Microanatomical detail plus appropriate developmental and functional considerations of major cell types, primary tissues, organs, and organ systems. Survey of modern animal-tissue microtechnique.

ZOO 5456C AS-BIOL 4(2,6)
Ichthyology: PR: ZOO 2303C or C.I. Introduction to the biology of the fishes, their classification, evolution, and life histories.

## ZOO 5463C AS-BIOL 4(2,6)

Herpetology: PR: 6 hours of zoology or C.I. Introduction to the biology of the amphibians and reptiles, their classification, evolution, and life histories.

## ZOO 5475C AS-BIOL 4(2,6)

Ornithology: PR: 6 hours of zoology or C.I. Introduction to the biology of birds, their classification, evolution, and life histories.

ZOO 5486C AS-BIOL 4(2,6)
Mammalogy: PR: 6 hours of zoology or C.I. Introduction to the biology of mammals, their classification, evolution, and life histories.

Methods for Studying Animal Behavior in Zoo Setting: PR: an animal behavior course or C.I. Research techniques used to study animals in captivity.

## ZOO 5745C HPA-M\&M 4(3,3)

Essentials of Neuroanatomy: PR: Human/Comparative Anatomy, or Human/Animal Physiology or C.I. Fundamental concepts of both morphological and functional organization of the nervous system. Primary emphasis on human structure.

## ZOO 5815 AS-BIOL 4(4,0)

Zoogeography: PR: 8 hours of zoology or C.I. Principles and concepts concerning regional patterns of animal distributions of the world, both past and present.

## ZOO 5881C AS-BIOL 4(3,4)

Fisheries Management: PR: ZOO 2303C or C.I. Fisheries management of freshwater environments to include identification, sampling methods, farming and hatchery operations, propagation and population estimates.

## ZOO 5891 AS-BIOL 1(1,0)

Applied Conservation Biology: PR: C.I. Examination of issues surrounding care, maintenance and tracking animals in small populations.

## ZOO 5893L AS-BIOL $\mathbf{1}(1,0)$

Reproductive Management in Zoological Environments: PR: PCB 4732 or C.I. Laboratory techniques used to improve reproductive success of animals in a zoological environment.
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## University Faculty \& Administrative Officers

Administrative officers include professional staff at the Associate Vice President or Associate Dean level and higher.

The date indicates the first year of employment at the University of Central Florida.

ABBAS, HADI, Instructor of Art
(1995), B.F.A., M.F.A. (Wichita State University)

ABBOTT, DAVID W., Associate Chair and Professor of Psychology
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ABDEL-ATY, MOHAMED, Associate Professor of Engineering
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ABEL, EILEEN M., Assistant Dean of Graduate Studies COHPA and Associate Professor of Social Work
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(1978), B.A., A.M., M.A., Ph.D. (Johns Hopkins University)

President Emeritus and Professor of History
COMISH, NEWEL W.,
(1968), B.S., M.S., Ph.D. (Ohio State University)

Professor Emeritus of Management

## COX, ELAINE B.,

(1973), B.S., M.A.T., Ph.D. (Florida State University)

Professor Emeritus of Education
CRAIG, ALBERT,
(1970), B.S., M.A., Ed.D. (Florida State University)

Professor Emeritus of Education
DUTTON, ARTHUR M.,
(1968), B.S., Ph.D. (Iowa State University)

Professor Emeritus of Statistics

## ELLIS, LESLIE L.,

(1968), B.S., M.S., Ph.D. (University of Oklahoma)

Professor Emeritus of Biology

## ERICKSON, ERNEST E.,

(1969), B.E.E., M.S.E., Ph.D. (University of Florida), P.E. (Florida)

Professor Emeritus of Engineering
ESLER, WILLIAM K.,
(1968), B.A.Ed., M.A.Ed., Ph.D. (Kent State University)

Professor Emeritus of Education

## FLICK, ROBERT G.,

(1968), B.S., M.A., Ph.D. (University of Florida)

Professor Emeritus of Humanities

## GRIFFITH, HAROLD L.,

(1972), B.S., M.S. (Pennsylvania State University), P.E. (Florida)

Professor Emeritus of Engineering Technology

## HALL, HARRY O.,

(1967), B.A., M.Ed., Ed.D. (University of Florida)

Professor Emeritus of Instructional Programs
HARDEN, RICHARD C.,
(1967), B.M.E., B.E.E., M.S.E., Ph.D. (University of Florida), P.E. (Florida)

Director and Professor Emeritus of Engineering, South Orlando Campus
HARTMAN, J. PAUL,
(1968), B.S., B.S.C.E., S.M., Ph.D. (University of Florida), P.E. (Florida)

Professor Emeritus of Engineering
HEDRICK, DONA LEA,
(1981), B.A., M.A., Ph.D. (University of Washington)

Professor Emeritus of Communicative Disorders

## HUBLER, J. W.,

(1967), B.S.C.E., C.E., M.S.E., M.S.C.E. (Yale University), D.Eng. S. (Hon.) (University of Central Florida), P.E. (Florida and 18 other states)

Professor Emeritus of Engineering Technology
JENKINS, DAVID R.,
(1969), B.S.C.E., M.S.E.M., Ph.D. (University of Michigan), P.E. (Ohio, Florida)

Professor Emeritus of Engineering
JONES, HALSEY R., JR.,
(1982), B.A., M.S., Ph.D. (Pennsylvania State University)

Professor of Management

## KERSTEN, ROBERT D.,

(1968), B.S., M.S., Ph.D. (Northwestern University), P.E. (Florida, Arizona, and Oklahoma)

Dean Emeritus and Professor Emeritus of Engineering

## KOEVENIG, JAMES L.,

(1971), B.A., M.A., Ph.D. (University of Iowa)

Professor Emeritus of Biology
MANNING, PATRICIA C.,
(1970), B.S., M.Ed., Ed.D. (Nova University)

Professor Emeritus of Education
MATTSON, GUY C.,
(1969), B.S., Ph.D. (University of Florida)

Professor Emeritus of Chemistry
MCLELLON, WALDRON M.,
(1969), B.S., B.C.E., M.C.E., M.S. (Physics), M.S., (Env. Engr.), Ph.D. (Rensselaer Polytechnic Institute)

Professor Emeritus of Engineering

## MICARELLI, CHARLES N.,

(1967), B.A., M.A., Ph.D. (Boston University)

Dean and Professor Emeritus of Foreign Languages and Literatures
MILLER, CALVIN C.,
(1967), B.A., M.Ed., Ed.D. (Florida State University)

Dean and Professor Emeritus of Education
MILLER, ERNEST E.,
(1968), B.S., M.S., Ed.D. (University of North Dakota)

Professor Emeritus of Education
MILLICAN, CHARLES N.,
(1965), B.S., M.A., Ph.D. (University of Florida)

President Emeritus and Professor of Finance

## OSTLE, BERNARD,

(1967), B.A., M.A., Ph.D. (Iowa State University)

## TESORI, ANTHONY P.,

(1970), B.S., M.A., Ed.D. (New York University)

Professor Emeritus of Education and Director Brevard Campus
TOWLE, HERBERT C.,
(1970), B.S.E., M.S.E., Ph.D. (University of Michigan), P.E. (Florida, New York)

Professor Emeritus of Engineering
WALKER, LYNN W.,
(1967), B.A., M.A. (Florida State University)

Director Emeritus of Libraries
WRIGHT, BURTON,
(1970), B.S., M.S., Ph.D. (Florida State University)

Professor Emeritus of Sociology
YAROSH, MARVIN M.,
(1975), B.S., M.S. (University of Minnesota)

Associate Director Emeritus of the Florida Solar Energy Center YOUSEF, YOUSEF A.,
(1970), B.S.C.E., M.S., Ph.D. (University of Texas), P.E. (Florida, Texas)

Professor Emeritus of Engineering

## Courtesy Appointments

ADLER, ERIC LEON, Professor of Engineering Science
B.Sc. M.A.Sc., Ph.D. (McGill University)

ALI, ARSHAD, Professor of Biology
(1994), B.S., M.S., Ph.D. (University of Salford, England)

AMBROSE, MAUREEN L., Professor of Psychology
(1999), Ph.D. (University of Illinois at Urbana)

BARROS, NELIO P., Assistant Professor of Biology
(1994), B.S., M.C., Ph.D. (University of Miami)

BAUSHER, MICHAEL G., Research Associate of Molecular Biology and Microbiology
B.S., M.S., Ph.D. (University of Florida)

BINDELL, JEFFREY B., Research Professor of Materials Science
B.S., M.S., Ph.D. (Polytechnic Institute of Brooklyn)

BRADLEY, BONNIE, Clinical Faculty, Health Information Management
CAPRAUN, LYNN W., Clinical Faculty, Cardiopulmonary Sciences
RTT, B.S., M.S. (University of Central Florida)
CHANDRA, SUBRATO,
(1998), M.S., Ph.D. (West Virginia University)

CLARKE, THOMAS L., Faculty Associate, Department of Mathematics
B.S., M.S., Ph.D. (University of Miami)

CURRY, JR., R. CHARLES, Clinical Faculty, Cardiopulmonary Sciences
M.D. (University of Florida)

DAS, TARA P., Professor of Physics
(1999), Ph.D. (Calcutta University)
de LA ROSA, CARLOS L., Associate Professor of Biology
(1998), B.S., Ph.D. (University of Pittsburgh)

DE LOACH, JR., BERNARD C., Professor of Engineering, SEECS
B.S., M.S., Ph.D. (Ohio State University)

DEATON, JOHN, Assistant Professor of Psychology; Commander USN, NTSC
(1994), B.A., M.A., Ph.D. (Catholic University of America, Washington, D.C.)

DELPAK, RAY, Principal Lecturer and Research Coordinator in Civil Engineering (1994), B.S., M.S., Ph.D. (University of Glamorgan, Wales, U.K.)

DEYRUP, MARK, Assistant Professor of Biology (1994), B.S., M.S., Ph.D. (University of Washington)

DHERE, NEELKANTH, Research Professor of Mechanical Engineering (1990), B.S., M.S., Ph.D. (Poona, India)

DUEVER, MICHAEL J., Professor of Biology
(1994), B.S., M.S., Ph.D. (University of Georgia)

FITZPATRICK, JACK, Clinical Faculty, Cardiopulmonary Sciences
RRT, BS (University of Central Florida)
FLAMM, RICHARD O., Research Associate Professor
(2000), B.S., M.S., Ph.D. (Texas A\&M University)

FRANKLIN, RAYMOND, Clinical Faculty, MLS, Department of Molecular Biology and Microbiology
M.D., Ph.D. (University of Texas)

FULLERTON, STUART, Biological Research Associate
(1995), B.S. (University of Central Florida)

GIBSON, JANE STRANDBURG, Associate Professor and Research Associate, Department of Molecular Biology \& Microbiology
B.S., M.S., Ph.D. (University of Florida)

GILES, JO ANN, Clinical Faculty, Medical Laboratory Sciences
B.S., MT (ASCP) (University of Florida)

GILLIARD, LAWRENCE M., Medical Director of Cardiopulmonary Sciences and Clinical Faculty
M.D. (University of Miami)

GOLDBERG, STEVEN, Associate Professor of Psychology; Chief, Orlando Field Unit, US Army Research Institute
(1994), B.A., Ph.D. (State University of New York at Buffalo)

GOODCHILD, JOHN, Professor of Chemistry
B.S., Ph.D. (Liverpool University)

GUNASEKERA, SARETH P., Professor of Chemistry
B.S. M.S. Ph.D. (University of Sri Lanka)

HARMAN, ROBERT, Professor of Psychology; Director of UCF Counseling Center
(1982), B.S., M.A., Ed.D. (University of Nebraska at Lincoln)

HEINONEN, OLLE, Associate Professor of Physics
(1989), B.S., Ph.D. (Case Western Reserve University)

## HICKERNELL, FREDERICK S.,

(1999), B.A., M.S., Ph.D. (Arizona State University)

IRWIN, RICHARD B., Research Professor of Materials Science
B.S., M.S., Ph.D. (University of Pittsburgh)

KAPLAN, MICHAEL, Professor of Psychology
Ph.D. (Columbia University)
KENNEDY, ROBERT S., Professor of Psychology
B.A., M.A., Ph.D. (University of Rochester)

KINCAID, J. PETER, Professor of Psychology
B.A., M.A., Ph.D. (Ohio State University)

LELI, DANO, Faculty Associate, Psychology
B.A., M.S., Ph.D. (University of South Florida)

LONGLEY, ROSS E., Research Associate of Molecular Biology and Microbiology
B.S., M.S.,Ph.D. (University of Oklahoma)

LOPEZ, FRANK, Faculty Associate, School Psychology
M.D. (Universidad Cetec, Dominican Republic)

McPHERSON, BRENDA, Faculty Associate, Educational Services
M.S. (University of Central Florida)

MEDIN, A. LOUIS, Professor of Engineering
Ph.D. (Ohio State University)
MELLEN, JILL, Research Assistant Professor
(1999), B.S., M.S., Ph.D. (University of California, Davis)

MENGES, ERIC, Assistant Professor of Biology
(1994), B.S., M.S., Ph.D. (University of Wisconsin)

MOLER, PAUL, Research Associate
(1999), B.S., M.S. (University of Florida)

NELSON, BILL, Distinguished Fellow, Space Education and Research Center
B.A., J.D. (University of Virginia)

NORMAN, ELAINE M., Professor of Biology
(1999), B.A., M.A., Ph.D. (Cornell University)

ODELL, DANIEL KEITH, Professor of Biology
(1994), B.S., M.A., Ph.D. (University of California, Los Angeles)

OGDEN, JACQUELINE J., Research Assistant Professor
(1999), B.A., M.S., Ph.D. (Georgia Institute of Technology)

PRATT, NANCY, Research Assistant Professor
(1999), B.A., Ph.D. (Princeton University)

PRITCHARD, PETER C. H., Professor of Biology
(1994), B.A., M.A., Ph.D. (University of Florida)

REDFOOT, WILLIAM, Research Associate
(1999), B.A., M.A., M.S. (University of Central Florida)

REECE, DOUGLAS A., Assistant Professor of Computer Science
B.S., M.S., Ph.D. (Carnegie Mellon University)

REYNOLDS, JOHN ELLIOTT III, Professor of Biology
(2000), B.A., M.S., Ph.D. (University of Miami)

ROSOFF, SUSAN M., Courtesy Assistant Professor of Art
B.A., M.A. (Vermont College)

SAFRANEK, WILLIAM, Clinical Faculty, MLS, Department of Molecular Biology and Microbiology

Ph.D. (Temple University)
SAVAGE, ANNE, Research Assistant Professor
(1999), B.A., Ph.D. (University of Wisconsin, Madison)

SINGER, MICHAEL JAMES, Faculty Associate, Psychology
B.A., M.S., Ph.D. (University of Maryland)

STEVENS, ELIZABETH FRANKE, Research Assistant Professor
(1999), B.S., Ph.D. (University of North Carolina, Chapel Hill)

STEVIE, FREDERICK A., Research Professor of Materials Science
A.B., M.S. (Vanderbilt University)

STONE, DIANNA L., Professor of Psychology
(1999), B.A., Ph.D. (Purdue University)

SWEENEY, PAUL D., Professor of Psychology
(1999), M.S., Ph.D. (Indiana University)

THOMAS, ROCKY S., Assistant Professor of Nursing
(1999), B.A., B.S.N., M.S.N., P.N.P. (University of Florida)

THOMPSON, CORELY M., Professor of Chemistry
(2001), B.S., M.S., Ph.D. (Auburn University)

TILSTONE, WILLIAM J., Professor of Chemistry
B.S., Ph.D. (University of Glasgow, Scotland)

TING, ROBERT Y., Professor of Chemistry and Research Professor of Mechanical Engineering (1997), B.S., M.S., Ph.D. (University of California, La Jolla)

VIRNSTEIN, ROBERT W., Research Associate Professor
(2000), B.A., M.A., Ph.D. (College of William \& Mary)

WALSH, ANTHONY, Clinical Faculty, Medical Laboratory Sciences
Ph.D. (University of Florida)
WEBB, JAMES M., Clinical Faculty, Cardiopulmonary Sciences
RRT, B.S. (Loma Linda University)
WEEKS, ARTHUR R, Associate Professor of Engineering
(1989), B.S.E. M.S.E., Ph.D. (University of Central Florida)

WETHERBEE, JUDITH, Clinical Faculty, MLS, Department of Molecular Biology and Microbiology
B.S. (University of New Hampshire)

WHISLER, MARILYN W., Associate Professor in Political Science
B.A., M.A., Ph.D. (University of Wisconsin)

WHITCOMB, CARRIE, Professor of Forensic Science
(1999), B.S., M.S.F.S. (George Washington University)

WITHERINGTON, BLAIR ERNEST, Research Assistant Professor
(1999), B.S., M.S., Ph.D. (University of Florida)

## YING, NELSON, Faculty Associate, Department of Physics

B.S., M.S., Ph.D. (Adelphi University)

YOUNG, DENISE L., Assistant Professor of Social Work
(1990), B.A., M.S.W., Ph.D. (University of Michigan)

ZARDA, P. RICHARD, Research Professor of Mechanical Engineering
B.A., B.S., M.S., Ph.D. (Columbia University)
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## Admisisions nod Catalogs

## HONORARY DEGREES AWARDED

| December, 1969 | Kurt H. Debus, Doctor of Engineering Science |
| :--- | :--- |
| William H. Dial, Doctor of Commercial Science |  |$|$| June, 1970 | John W. Young, Doctor of Applied Science |
| :--- | :--- |
| March, 1973 | Louis C. Murray, Doctor of Public Service |
| August, 1974 | Fred Elmo Clayton, Doctor of Professional Engineering |
| August, 1978 | Richard F. Livingston, Doctor of Business Administration |
| June, 1979 | Albert F. Hegenberger, Doctor of Engineering Science <br> Lee R. Scherer, Doctor of Engineering Science |
| December, 1979 | Joseph D. Duffey, Doctor of Humane Letters |
| August, 1980 | Thelma Vivian Jackson Dudley, Doctor of Humanities <br> Howard Phillips (Posthumous), Doctor of Public Service |
| December, 1981 | Gene Burns, Master of Letters |
| April, 1982 | Andrew Duda, Jr., Doctor of Agricultural Service <br> Ferdinand Duda, Doctor of Agricultural Service |
| John Duda, Doctor of Agricultural Service <br> Robert J. Whalen, Doctor of Engineering Science |  |
| July, 1982 | Mary Jo Stroud Davis, Doctor of Public Service <br> William E. Davis, Doctor of Public Service |
| December, 1982 | Joseph A. Boyd, Doctor of Engineering Science |
| July, 1983 | J.W. Hubler, Doctor of Engineering Science <br> Charles Wadsworth, Doctor of Public Service |
| December, 1984 | Allan E. Gotlieb, Doctor of Laws |
| June, 1985 | George J. Becker, Jr., Doctor of Public Service <br> Jerry Collins, Doctor of Public Service <br> D. Robert Graham, Doctor of Public Service <br> Walter O. Lowrie, Doctor of Engineering Science <br> William C. Schwartz, Doctor of Engineering Science |
| March, 1986 | Isaac Bashevis Singer, Doctor of Letters |
| October, 1988 | Elie Wiesel, Doctor of Letters |
| December, 1988 | Sven Caspersen, Doctor of Engineering Science <br> John D. Holloway, Doctor of Public Serviee <br> Wolfgang-Detlef Petri, Doctor of Commercial Science |


| May, 1989 | David Albertson, Doctor of Humane Letters <br> Frank M. Hubbard, Doctor of Public Service <br> William S. Jenkins, Doctor of Humane Letters <br> Charles N. Millican, Doctor of Laws <br> James C. Robinson, Doctor of Public Service |
| :--- | :--- |
| May, 1990 | Helen Harris Perlman, Doctor of Humane Letters <br> Thaddeus Seymour, Doctor of Letters |
| May, 1991 | Roald Hoffman, Doctor of Science |
| May, 1992 | Robert A. Bryan, Doctor of Humane Letters |
| May, 1993 | Buell G. Duncan, Jr., Doctor of Commercial Science |
| May, 1995 | Norman R. Augustine, Doctor of Engineering Science |
| December, 1995 | Jesse Stone, Doctor of Humane Letters |
| December, 1996 | Richard A. "Dick" Nunis, Doctor of Public Service |
| May, 1997 | Maxwell C. King, Doctor of Public Service <br> Joe. R. Lee, Doctor of Commercial Science |
| August, 1998 | Trevor Colbourn, Doctor of Humane Letters |
| December, 1998 | Linda W. Chapin, Doctor of Public Service |
| December, 1999 | Oscar Arias, Doctor of Humane Letters <br> Desmond Tutu, Doctor of Humane Letters <br> Reubin Askew, Doctor of Public Service |
| May, 2000 | Lotfi Zadeh, Doctor of Science |
| December, 2000 | Jacques-Louis Lions, Doctor of Science |

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## ACADEMIC GLOSSARY


#### Abstract

AA: associate of arts degree. A degree designed for transfer to an upper division college or


 university. A Florida AA degree satisfies General Education (GEP) at all Florida SUS Schools.AS: associate of science degree. A broad based degree designed to prepare students to enter a wide variety of careers.

AS: arts and sciences. This abbreviation appears in the listing of courses and refers to the College of Arts and Sciences.

ASAP: academic support and advising programs. Freshman advising offices and other academic support services.

Accreditation: certification that the college/school or program has met established standards and is nationally recognized by appropriate accrediting agencies.

ACT: American College Testing program is an assessment used for undergraduate admission purposes.

Add/Drop: procedure used to alter class schedules after registration. During this time, students can adjust their schedules without penalty by adding or dropping courses. Students should check the appropriate semester/term's Schedule Web Guide for details.

Audit (course): those desiring to attend classes without receiving academic credit.

Audit (degree): Computerized summary of progress toward completion of degree requirements to be
used with academic advising and registration. Available at advising office with a photo ID (See "SASS Audit").

BA: business administration. This abbreviation appears in the listing of courses and refers to the College of Business Administration.

Baccalaureate or Bachelors Degree: completion of all University and major graduation requirements as certified by the University ( $\mathbf{B A}$ is the bachelor of arts degree and $\mathbf{B S}$ is the bachelor of science degree).

BC: Brevard area campus - UCF Cocoa Campus

Breaking Catalog: loss of eligibility to follow graduation requirements in a specific catalog.

CAS: College of Arts and Sciences

Catalog: resource for UCF academic policies and procedures, college/school and degree requirements, faculty and course descriptions. It is published annually and its contents are subject to change. Students must meet graduation requirements as published in a single catalog edition.

Catalog Year: the University catalog in effect at the time of a student=s first enrollment at UCF governs graduation prerequisites.

## CBA: College of Business Administration

CI: consent of instructor.

Class Schedule: an online listing of courses to be offered each academic semester/term. This list is updated at least every fifteen minutes during registration (http://ClassSchedule.ucf.edu).

CLAST: College Level Academic Skills Test: The CLAST is a required statewide test which measures selected communication and mathematics skills. FTICs must take it after completing 18 semester hours. Transfers must take it during their first semester at UCF.

CLAST Alternative: refers to another way of satisfying one or more subtests of the CLAST requirement other than taking the exam -- through combination test scores (SAT or ACT) and specific course grades.

## COE: College of Education.

COECS: College of Engineering and Computer Science

COHPA: College of Health and Public Affairs.

College/School: collection of related academic departments. There are seven colleges/schools at the University of Central Florida: Arts and Sciences, Business Administration, Education, Engineering and Computer Science, Health and Public Affairs, Honors, and the Rosen School of Hospitality Management.

Common Course Numbering: the statewide course numbering system (SCNS) uses a course designation which consists of a 3-letter prefix and a 4-digit number and when necessary a one-letter laboratory (L) or lecture/laboratory (C) suffix.

Common Program Prerequisite: the State of Florida has identified Common Program Prerequisites for all University programs. These prerequisites must be completed by all students entering that field of study, must be accepted by all state universities and must be applied towards the degree.

Contact hours: number of hours the students meet in class.

Continuous Enrollment: enrollment not interrupted by non-attendance for either consecutive Fall and Spring semesters, or consecutive Spring, Summer term, and Fall.

CR: corequisite is an additional course in which you must enroll during the same term or in a prior
term as the primary course you desire to take.

Credit Hour or Semester Hour: every course taught is designated a total number of credit hours. The number of credit hours for a class reflects approximately the total hours a student spends per week in class. Most lecture courses are three credit hours and meet three hours each week. Students should expect to spend at least two hours of study time outside of class for every hour spent in class. one semester hour equals 1.5 quarter hour.

Directory Information: directory information includes the student's name, current mailing address, telephone number, date of birth, e-mail address, enrollment status, dates of attendance, major field of study, degree and awards received, participation in officially recognized activities and sports, and athletes' height and weight.

Disqualified: a student on academic probation is disqualified upon failure to achieve a minimum 2.0 cumulative UCF GPA during the subsequent semester.

Distance and Distributed Learning: learning on-line through distributed courses allows students to participate virtually via a computer using e-mail, computer conferencing, and the World Wide Web. Interactive television (ITV) courses are broadcasted in real-time using two-way audio between two or more sites. Fully on-line courses have minimal class meetings and involve additional media.

Double Major: awarded when the student concurrently satisfies requirements for two majors.

Drop: a student may drop a course during the official Add/Drop period and a dropped course will not appear on the student's permanent record. Students are not fee liable for dropped courses.

ECS: Engineering and Computer Science. This abbreviation appears in the listing of courses and refers to the College of Engineering and Computer Science.

ED: Education. This abbreviation appears in the listing of courses and refers to the College of Education.

Elective: any course not required as part of the General Education Program or as part of your major.

Enrollment Certification: an official University document that provides a student's enrollment history including status, dates enrolled, and degrees awarded.

Excluded: a student readmitted following disqualification who fails to achieve a minimum 2.0 cumulative GPA.

Fee Invoice/Schedule: a printout of courses for which the student has registered that lists each specific course, its meeting time(s) and day(s). The amount of tuition and fees due for all courses registered and the payment deadline date also is indicated on printout.

Freshman and Sophomore Courses: lower level courses with common course numbers ranging from 1000-2999. Example: ENC 1101, English Composition I. Generally, freshmen should enroll in 1000 and 2000 level courses.

FTIC: abbreviation for "first time in college@ referring to those students who have completed fewer than 12 semester hours and are currently in their first term as a UCF college student.

Full-Time Course Load: a minimum of 12 credits in the Fall and Spring semesters, and Summer term.

GEP: general education program: Specific courses required for all UCF degree programs providing skills and knowledge in general subject areas essential to continued learning and success, not only in college but throughout the student's life.

Gordon Rule: requires students to complete 24,000 words of composition in four courses ( 12 semester hours) and to complete two courses (six semester hours) of mathematics at the level of college algebra or higher. Each course must be completed with a grade of AC@ (2.0) or better.

GPA: Grade Point Average: The calculation of credit attempted and earned. UCF calculates two GPA=s: 1) semester/term GPA; and 2) UCF GPA: course work exclusively taken at UCF.

Grade Forgiveness: refers to when a course taken at UCF is repeated and for grade point average purposes the grade earned in the first attempt is replaced by the grade earned in the second attempt at UCF (may be done only twice in the student's academic career).

Health Form: documentation of immunity for measles and rubella, as well as consent for treatment at the University Health Center. (Must be completed and returned to Student Health Services prior to first registration.)

Hold: block on activity for transcripts, grades, diploma, or registration because of financial or other obligations to UCF.

HPA: health and public affairs. This abbreviation appears in the listing of courses and refers to the College of Health and Public Affairs.

Incomplete: assigned by the instructor when a student is unable to complete a course due to extenuating circumstances. Must be completed in 12 months or by graduation, whichever comes first.

Junior and Senior Courses: upper level courses with common course numbers ranging from 3000-4999. Example: ENG 3311, Advanced Expository Writing.

Kiosk: stand-alone PCs located in public areas providing access to student records and to general information.

Lake Sumter: off campus classroom location.

Limited Access: certain academic programs designated as Alimited access@ only guarantee admission to a limited number of applicants.

Lower Level Courses: courses with a number of 1000-2999 (not 0000).

Major: A group of related courses that constitute a focused program of study in a specific area of knowledge.

Minor: A small group of related courses that constitute limited study, usually 15 to 18 credit hours.

OASIS: Office of Academic Support and Information Services is the primary office for undergraduate academic assistance in the College of Arts and Sciences.

Overall GPA: cumulative GPA of UCF and transfer course work.

Pending Status: category assigned to students who desire to enter limited access programs. Typically, students are required to complete the GEP and all major pre-requisites prior to admission into the desired limited access program. (Department will change student=s status upon acceptance into the program.)

PIN: personal four digit code required to access POLARIS, TouchTone, or the UCF Information Kiosks.

POLARIS: Personal On-Line Access to Restricted Information Systems is accessed at https://polaris.ucf.edu on the Internet. POLARIS allows students to view their degree audit and academic record, register for classes, access their financial aid data and change the PIN number.

PR: Prerequisite refers to a specific course that must be taken and passed prior to enrolling in the primary course the student desires to take.

Probation: action taken when a student's UCF cumulative GPA drops below 2.0.

Registration: the act of enrolling in classes. This may be done through POLARIS, TouchTone telephone, kiosk and walk-by in the colleges' advising offices.

Repeat Surcharge: additional fee applied when a student enrolls in the same course three or more times.

Restricted Access: a major has additional admission requirements (e.g. early application date, a separate application or specific GPA requirements). There is no Alimit@ to the number of students who can be enrolled. Students meeting the specified requirement(s) normally will be admitted.

Restricted Electives: a specified group of courses within a major from which students must make selections.

Retention: a term used to describe students= continued enrollment at the University until successful completion of their educational goals.

SARC: Student Academic Resource Center provides academic support programs, including supplemental instruction, tutoring, academic advising, and various other programs and services to students.

SASS Audit: A Student Academic Support System is a computerized degree audit that lists courses completed toward major and degree requirements.

SAT: Scholastic Assessment Test is an assessment used for University admission purposes.

Satisfactory Academic Progress: a general eligibility requirement for financial assistance. (See "Student Financial Assistance Office" in this Undergraduate Catalog.)

Schedule Web Guide: booklet published twice each year (Summer/Fall and Spring editions) providing academic calendars and describing the policies and procedures necessary for course registration. Each semester's class listings are available only on-line at http://ClassSchedule.ucf.edu.

Second Bachelors Degree: awarded when the student meets the requirements for both degrees and earns a minimum of 150 credit hours.

Section: refers to one of several offerings of the same course scheduled at different days of the week and hours of the day. For example: there may be 40 different sections of ENC 1101 offered within a semester.

Sequence: a series of courses within the same subject area. Generally, the student takes these courses in numerical order.Ffor example, PHY 2053 then 2054. Students should consult the advisor before registering out of sequence.

Semester: the academic year at UCF is divided into segments called "semesters" or "terms." Each lasts approximately 16 weeks. Some universities break the year into fourths and call them "quarters."

UCF is on the semester system; however, we usually speak of AFall Semester, @ ASpring Semester, or ASummer Terms.@

Semester Average: grade point average on work attempted during any given semester

SOC: South Orlando Center.

SUS: State University System. All ten Florida public universities are part of the SUS.

THC: The Honors College

Third Attempt Charge: See 'Repeat Surcharge.'

TouchTone (telephone) Registration: voice response registration system. Used for registration and add/drop (407-823-2527 or 877-823-2527).

Track: one of two or more significant variations in a degree program or major. Approximately 50\% of the courses in one track differ from the courses required in other tracks.

TSD: time shortened degree.

TSR: transfer summary report: Listing of all coursework transferring to the University for credit. A preliminary TSR is generated at the time of acceptance. A final TSR is processed after all final transcripts have been received by the Admissions Office.

Transient Student: a UCF student enrolled in courses at another regionally-accredited institution.

UCF Area Campuses: Daytona Beach and Brevard area campuses, South Orlando Center, Downtown Center, Palm Bay Center, Lake Sumter Community College Site, Seminole Community College Site, and Valencia Community College Site.

UCF Average: grade point average on all work attempted while in attendance at the University of Central Florida

Universal PIN: personal four digit code required to access POLARIS, TouchTone, or the UCF Information Kiosks.

Upper Level Courses: courses with a common course number of 3000-4999.

Walk-by Registration: registration site in the college advising office for students who have special situations that cannot be accommodated by web or telephone registration.

Withdrawal, Withdraw from a Course: to formally file an official withdrawal request during the first half of the semester or term/session, students may visit the Registrar's Office or use POLARIS. The withdrawal policy is listed in this Undergraduate Catalog and the Schedule Web Guide.

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$$

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## Fall 2000

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## Summer 2001

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## Fall 2000 Academic Calendar

## (View Fall 2000 Holidays)

|  | Fall |
| :--- | :--- |
| Application Deadlines |  |
| International Students | May 1 |
| New Applicants and New Transfers | May 15 |
| All Readmissions | July 14 |
| Academic Dates and Deadlines | July 28 |
| Early Registration* | July 28 |
| Early Fall Payment Deadline | July 31 |
| Fall Graduation Application Due | Aug. 19 |
| Residence Halls Open (1 p.m.) | Aug. 21-23 |
| Regular Registration | Aug. 24-29 |
| Fees Due; Last Day for Full Refund |  |
| Classes Begin 21-29 |  |
| Add/Drop Registration** |  |
| Arade Forgiveness Deadline |  |


| Withdrawal Deadline | Oct. 20 |
| :--- | :--- |
| VA Deferral Payment Deadline | Nov. 17 |
| Classes End; Last Day to Remove <br> Incomplete*** | Dec. 4 |
| Final Examination Period | Dec. 5-11 |
| Residence Halls Close (noon) | Dec. 12 |
| Grades Due in Registrar’s Office (noon) | Dec. 14 |
| Grades Available (begins 0900) | Dec. 15 |
| Commencement | Dec. 15-16 |

## Fall 2000 Holidays

| Labor Day | September 4 |
| :---: | :---: |
| Veteran's Day | November 10 |
| Thanksgiving | November 23-26 |

*Registration System will be off-line May 1 (1700) to May 8 (0900), and July 28 (1700) to August 17 (0900).
**\$50 Late fee applies to students who have not previously registered.
***Effective Fall 1997, incompletes must be removed within one year of the award date or will change to " $F$ ".

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## Spring 2001 Academic Calendar

## (View Spring 2001 Holidays)

(View Spring Final Exam Schedule)

|  | Spring |
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| Application Deadlines |  |
| International Students | July 28 |
| All Applicants, Transfers and <br> Readmissions | Nov. 15 |
| Academic Dates and Deadlines | Nov. 13 |
| Early Registration | Nov. 14- |
| Dec. 8 |  |


| Fees Due; Last Day for Full Refund | Jan. 12 |
| :--- | :--- |
| Withdrawal Deadline | Mar. 2 |
| Spring Break | March 12 - 17 |
| Founder's Day | April 4 |
| VA Deferral Payment Deadline | April 6 |
| Classes End; Last Day to Remove <br> Incomplete** | April 23 |
| Final Examination Period | April 24 - 30 |
| Residence Halls Close (noon) | May 1 |
| Grades Due in Registrar's Office (noon) | May 3 |
| Commencement | May 4-5 |


| Spring 2001 Holidays |  |
| :---: | :---: |
| M. L. King Day | January 15 |

*\$50 Late fee applies to students who have not previously registered.
**Effective Fall 1997, incompletes must be removed within one year of the award date or will change to " $F$ ".

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## Summer 2001 Academic Calendar

(View Summer 2001 Holidays)

|  | Term A | Term B | Term C | Term D |
| :---: | :---: | :---: | :---: | :---: |
| Application Deadlines |  |  |  |  |
| International Students | Dec. 1 | Dec. 1 | Dec. 1 | Dec. 1 |
| First time in college and undergraduate transfer admissions | March 15 | March 15 | March 15 | March 15 |
| Undergraduate readmissions and graduate programs without deadlines | April 16 | April 16 | April 16 | April 16 |
| Academic Dates and Deadlines |  |  |  |  |
| Early Registration and Add/Drop | $\begin{aligned} & \text { Mar 26-May } \\ & 6 \end{aligned}$ | $\begin{aligned} & \text { Mar } 26 \text { - June } \\ & 17 \end{aligned}$ | Mar 26 - May 6 | $\begin{aligned} & \text { Mar } 26-\text { May } \\ & 6 \end{aligned}$ |
| Summer Graduation Application Due | Apr. 23 | Apr. 23 | Apr. 23 | Apr. 23 |
| Early Summer Payment Deadline | May 11 | May 11* | May 11 | May 11 |
| $\begin{aligned} & \text { Residence Halls Open (1 } \\ & \text { p.m.) } \end{aligned}$ | May 5 | June 11 | May 5 | May 5 |
| Registration and Add/Drop - A, B,C, D | May 7-8 | May 7-8 | May 7-8 | May 7-8 |
| Registration and Add/Drop - B only |  | June 18-19 |  |  |
| Registration Time for State Employees, Non-degree, Transients and Audits | $\begin{aligned} & \text { May } 7 \text { (3:30 } \\ & \text { pm }) \end{aligned}$ | $\begin{aligned} & \text { June } 18(3: 30 \\ & \mathrm{pm}) \end{aligned}$ | $\begin{aligned} & \text { May } 7 \text { (3:30 } \\ & \text { pm) } \end{aligned}$ | $\begin{aligned} & \text { May } 7 \text { (3:30 } \\ & \mathrm{pm}) \end{aligned}$ |
| Classes Begin | May 8 | June 19 | May 8 | May 8 |


| Late Registration** and <br> Add/Drop | May 9-11 | June 20-22 | May 9 - 11 | May 9 - 11 |
| :--- | :--- | :--- | :--- | :--- |
| Grade Forgiveness <br> Deadline | May 11 | June 22 | May 11 | May 11 |
| Fees due; Last Day for <br> Full Refund | May 11 | June 22*** | May 11 | May 11 |
| Withdrawal Deadline | May 25 | July 6 | June 15 | June 1 |
| VA Deferral Payment <br> Deadline | July 20 | July 20 | July 20 | July 20 |
| Classes End; Last Day to <br> Remove Incomplete**** | June 18 | July 30 | July 30 | July 9 |
| Final Examination <br> Period***** | June 18 | July 30 | July 30 | July 9 |
| Residence Halls Close <br> (noon) | June 19 | July 31 | July 31 | July 10 |
| Grades Due in <br> Registrar's Office (noon) | June 21 | Aug. 2 | Aug. 2 | July 12 |
| Commencement | Aug. 4 | Aug. 4 | Aug. 4 | Aug. 4 |


| Summer 2001 Holidays |  |
| :---: | :---: |
| Memorial Day | May 28 |
| Independence Day | July 4 |

*Summer B payment deadline for all students who register 3/26-5/11. **\$50 Late fee applies to students who have not previously registered. ***Summer B payment deadline for all students who register 5/12-6/22.
****Effective Fall 1997, incompletes must be removed within one year of the award date or will change to " $F$ ".
*****Summer final exams are given during the last class meeting.
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## Fall 2001 Academic Calendar

(View Fall 2001 Holidays)
(View Fall Exam Schedule)

|  | Fall |
| :--- | :--- |
| Application Deadlines | May 1 |
| International Students | May 15 |
| New Applicants and New Transfers | July 13 |
| All Readmissions | Mar 26 - Jul 30 |
| Academic Dates and Deadlines | Mar 26 - Aug 6 |
| Early Registration and Add/Drop | Aug 6 |
| Submit Intent to Graduate Form for Fall 2001 | Aug 16-20 |
| Early Fall Payment Deadline | Aug 17 |
| Fall Intent to Graduate Form Deadline |  |
| Registration and Add/Drop | Aug 18 |
| Registration Time for State Employees, Non-degree, |  |
| Transients and Audits (3:30 p.m.) | Residence Halls Open (10 a.m.) |
| Resegin |  |
|  |  |


| Grade Forgiveness Deadline | Aug 24 |
| :--- | :--- |
| Fees Due; Last Day for Full Refund | Aug 24 |
| Withdrawal Deadline | Oct. 19 |
| VA Deferral Payment Deadline | Nov. 16 |
| Classes End; Last Day to Remove Incomplete** | Dec. 3 |
| Final Examination Period | Dec. 4-10 |
| Residence Halls Close (noon) | Dec. 11 |
| Grades Due in Registrar's Office (noon) | Dec. 13 |
| Grades Available (9 a.m.) | Dec. 14-15 |
| Commencement |  |


| Fall 2001 Holidays |  |
| :---: | :---: |
| Labor Day | September 3 |
| Veteran's Day | November 12 |
| Thanksgiving | November 22-25 |

*\$50 Late fee applies to students who have not previously registered.
**Effective Fall 1997, incompletes must be removed within one year of the award date or will change to " $F$ ".

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## Spring 2002 Academic Calendar

## (View Spring 2002 Holidays)

|  | Spring |
| :---: | :---: |
| Application Deadlines |  |
| International Students | Nov. 1 |
| All Applicants, Transfers and Readmissions | Nov. 15 |
| Academic Dates and Deadlines |  |
| Early Registration and Add/Drop | Oct. 22 Dec. 7 |
| Submit Intent to Graduate Form for Spring 2002 | Oct. 22 - Dec. 3 |
| Spring Intent to Graduate Form Deadline | Dec. 3 |
| Registration and Add/Drop | Dec. 28 Jan. 7 |
| Residence Halls Open (1 p.m.) | Jan. 2 |
| Registration Time for State Employees, Non-degree, Transients and Audits | Jan. 7 (1 p.m.) |
| Classes Begin | Jan. 7 |
| Late Registration* and Add/Drop | Jan. 8-11 |
| Grade Forgiveness Deadline | Jan. 11 |
| Fees Due; Last Day for Full Refund | Jan. 11 |


| Withdrawal Deadline | Mar. 1 |
| :--- | :--- |
| Spring Break | Mar. 11-16 |
| VA Deferral Payment Deadline | Apr. 1 |
| Founder's Day | April 3 |
| Classes End; Last Day to Remove <br> Incomplete** | April 22 |
| Final Examination Period | April 23-29 |
| Residence Halls Close (noon) | Apr 30 |
| Grades Due in Registrar's Office <br> (noon) | May 2 |
| Grades Available (9 a.m.) | May 3 |
| Commencement | May 3-4 |


| Spring 2002 Holidays |  |
| :---: | :---: |
| M. L. King Day | January 21 |

*\$50 Late fee applies to students who have not previously registered.
**Effective Fall 1997, incompletes must be removed within one year of the award date or will change to " $F$ ".

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## Summer 2002 Academic Calendar

(View Summer 2002 Holidays)

|  | Term A | Term B | Term C | Term D |
| :--- | :--- | :--- | :--- | :--- |
| Application Deadlines |  |  |  |  |
| International Students | Mar. 1 | Mar. 1 | Mar. 1 | Mar. 1 |
| All undergraduate applicants and <br> transfers | Mar. 15 | Mar. 15 | Mar. 15 |  |
| All Readmissions | Apr. 15 | Apr. 15 | Apr. 15 |  |
| Academic Dates and Deadlines |  |  |  |  |


| Grades Due in Registrar's Office <br> (noon) | June 20 | Aug. 1 | Aug. 1 | July 11 |
| :--- | :--- | :--- | :--- | :--- |
| Grades Available (9 a.m.) | June 21 | Aug. 2 | Aug. 2 | Jul. 12 |
| Commencement | Aug. 3 | Aug. 3 | Aug. 3 | Aug. 3 |
| Residence Halls Close (noon) | June 19 | July 30 | July 30 | July 9 |


| Summer ‘02 Holidays |  |
| :---: | :---: |
| Memorial Day | May 27 |
| Independence Day | July 4 |

*\$50 Late fee applies to students who have not previously registered.
**Summer B payment deadline for all students who register 3/25-5/10.
***Summer B payment deadline for all students who register 6/17-6/21.
*****Effective Fall 1997, incompletes must be removed within one year of the award date or will change to ' $\mathrm{F}^{\prime}$ ".
*****SSummer final exams are given during the last class meeting.
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    none

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[^9]:    MOLECULAR BIOLOGY AND MICROBIOLOGY: Minor
    College of Health and Public Affairs
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