

1992-1993

*Linda Bonta  
6/92*

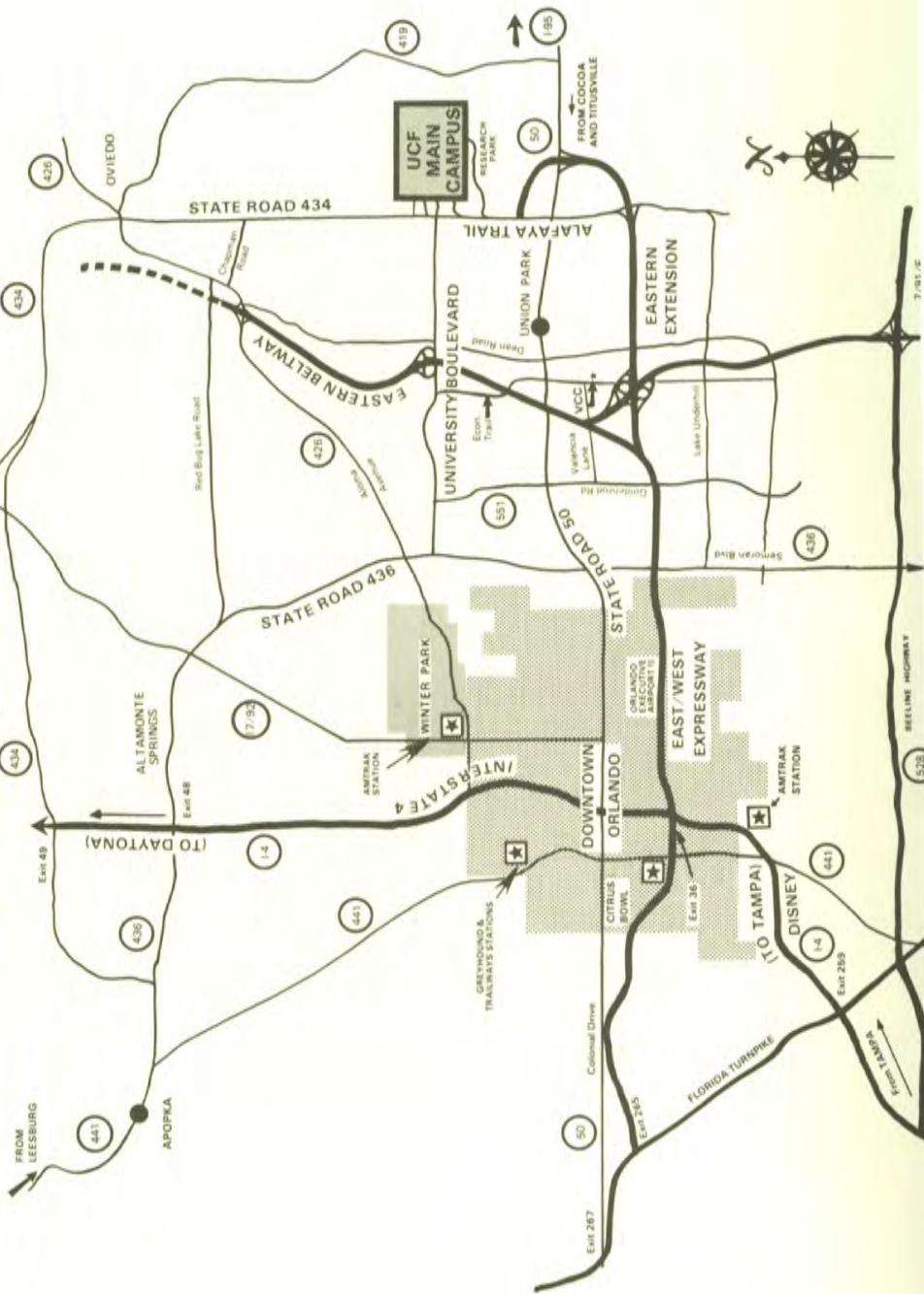
# UNDERGRADUATE CATALOG



# University of Central Florida



# University of Central Florida Orlando Vicinity Map





# UNDERGRADUATE CATALOG

## UNIVERSITY OF CENTRAL FLORIDA ORLANDO

A Member Institution  
of the  
State University System of Florida



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.

*Accent on the Individual  
and on Excellence*

**Correspondence/Phone**  
Undergraduate Admissions  
University of Central Florida  
PO Box 160111  
Orlando FL 32816-0111  
(407) 823-3000  
University Operator  
(407) 823-2000

Financial Aid Office  
University of Central Florida  
PO Box 160113  
Orlando FL 32816-0113  
(407) 823-2827  
Housing Office  
University of Central Florida  
PO Box 163222  
Orlando FL 32816-3222  
(407) 823-4663

Volume 25, Number 1  
Cover Design: Jagdish J. Chavda

May 1992

Additional copies of this catalog may be purchased for \$2.00 in the University Bookstore or by mail for \$3.50 by writing to: Catalog, UCF Bookstore, Orlando, FL 32816-0444. A current catalog is issued to each student free of charge at registration.



## 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 catalog. The catalog is published once a year and cannot always reflect new and modified regulations. Statements in this 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 catalog. Additional information or clarification of any policy or procedure may be obtained from the specified office.

The University of Central Florida values diversity in the campus community. Accordingly, discrimination on the basis of race, sex, national origin, religion, age, handicap, 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 environment.

Sexual harassment is strictly prohibited and will be dealt with in accordance with University rule.

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 Administration 330, Orlando, Florida 32816-0030. The phone number is (407) UCF-1EEO.

### **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 Personnel Services (AD 230) or the Division of Student Affairs (AD 282).



# TABLE OF CONTENTS

STATE OF FLORIDA BOARD OF EDUCATION .....	6
STATE OF FLORIDA BOARD OF REGENTS .....	6
PRINCIPAL OFFICERS OF ADMINISTRATION .....	6
ADMINISTRATION .....	6
COLLEGES AND DEPARTMENTS .....	8
ACADEMIC CALENDAR .....	10
CAMPUS SERVICES DIRECTORY .....	15
<b>UNIVERSITY OF CENTRAL FLORIDA</b>	
STATEMENT OF PURPOSE .....	17
INSTITUTIONAL PHILOSOPHY .....	17
ACCREDITATION .....	17
EAST CENTRAL FLORIDA .....	18
THE ORLANDO CAMPUS .....	18
AREA CAMPUSES .....	19
ENDOWED CHAIRS .....	23
INTERNATIONAL STUDIES AND PROGRAMS .....	23
UNIVERSITY LIBRARIES .....	25
UNIVERSITY OF CENTRAL FLORIDA PRESS .....	26
UNIVERSITY OF CENTRAL FLORIDA FOUNDATION, INC .....	26
INSTRUCTIONAL RESOURCES .....	26
UNIVERSITY BOOKSTORE .....	26
INTERCOLLEGIATE ATHLETICS .....	26
PROJECT FOR THE HUMANITIES .....	26
CENTRAL FLORIDA RESEARCH PARK .....	27
<b>STUDENT AFFAIRS</b>	
INTRODUCTION .....	29
OFFICE OF DEAN OF STUDENTS .....	29
CONFIDENTIALITY OF RECORDS .....	29
STUDENT GOVERNMENT .....	29
SERVICES .....	30
<b>ADMISSION</b>	
APPLICATION FOR ADMISSION .....	36
ADMISSIONS AND STANDARDS COMMITTEE .....	36
REACTIVATION .....	36
READMISSION .....	36
LIMITED ACCESS PROGRAMS .....	37
RECORDS .....	37
FRESHMAN APPLICANTS .....	38
TRANSFER APPLICANTS .....	39
TRANSFER CREDIT .....	42
ACCREDITED INSTITUTIONS .....	43
COLLEGE PREPARATORY INSTRUCTION .....	43
INTERNATIONAL STUDENT ADMISSION .....	43
INTERNATIONAL STUDENT INSURANCE .....	44
TEMPORARY STUDENTS .....	44
TRANSIENT STUDENTS .....	44
AUDIT STUDENTS .....	44
NON DEGREE-SEEKING STUDENTS .....	44
SENIOR CITIZENS .....	45
<b>TUITION AND FEES</b>	
SCHEDULE OF FEES .....	46
FLORIDA RESIDENCY FOR TUITION PURPOSES .....	47
APPEALS .....	48
CHECK CASHING .....	48
PAST-DUE ACCOUNTS .....	48
PAYMENT ON ACCOUNT .....	48



REFUND OF FEES .....	48
TUITION FEE WAIVERS FOR STATE OF FLORIDA EMPLOYEES .....	48
TUITION FEE WAIVERS FOR SENIOR CITIZENS .....	49
<b>FINANCIAL AID AND SCHOLARSHIPS</b>	
DETERMINING ELIGIBILITY .....	50
UCF APPLICATION DEADLINES .....	50
APPLICATION PROCEDURES .....	50
VERIFICATION .....	51
TRANSFER STUDENTS .....	51
INDEPENDENT STUDENT STATUS .....	51
PROGRAMS AVAILABLE AT UCF .....	52
GRANTS .....	52
EMPLOYMENT .....	52
LOANS .....	52
LOANS AND EMPLOYMENT NOT BASED ON NEED .....	52
OTHER SERVICES .....	53
AWARD PACKAGES .....	53
AUTOMATIC DEFERMENT .....	54
DISBURSEMENTS .....	54
REFUNDS AND REPAYMENT POLICIES .....	55
REQUIREMENTS TO RECEIVE AID .....	56
UNDERGRADUATE STANDARDS .....	56
FINANCIAL AID FOR GRADUATE STUDENTS .....	57
STUDENT RIGHTS AND RESPONSIBILITIES .....	57
<b>ACADEMIC POLICIES AND PROCEDURES</b>	
ACADEMIC ETHICS .....	58
STUDENT CLASSIFICATIONS .....	58
SEMESTER HOURS EXPLAINED .....	59
MAXIMUM COURSE LOAD .....	59
GRADING SYSTEM .....	59
ACADEMIC STANDING .....	60
EARNING CREDIT WHILE DISQUALIFIED OR EXCLUDED .....	61
INCOMPLETE GRADE .....	61
SCHEDULE CHANGES—ADD/DROP POLICY .....	61
WITHDRAWAL POLICY .....	61
TRANSIENT ENROLLMENT AT OTHER INSTITUTIONS .....	62
GRADE FORGIVENESS .....	62
ACADEMIC HONORS .....	63
TIME-SHORTENED DEGREE OPPORTUNITIES .....	64
TRANSCRIPT REQUESTS .....	69
<b>UNDERGRADUATE DEGREE REQUIREMENTS</b>	
REQUIREMENTS FOR GRADUATION .....	70
CHOICE OF CATALOG AND CONTINUOUS ENROLLMENT .....	70
GENERAL EDUCATION PROGRAM .....	70
FOREIGN LANGUAGE PROFICIENCY REQUIREMENT .....	73
THE GORDON RULE .....	73
COLLEGE LEVEL ACADEMIC SKILLS TEST .....	74
CORRESPONDENCE COURSES .....	74
SUMMER ATTENDANCE REQUIREMENT .....	74
ADMISSION TO THE UPPER DIVISION .....	74
STEPS IN THE GRADUATION PROCESS .....	74
TEACHER CERTIFICATION REQUIREMENTS .....	75
<b>OFFICE OF UNDERGRADUATE STUDIES</b>	
AEROSPACE STUDIES (AIR FORCE-ROTC) .....	76
ARMY ROTC-MILITARY SCIENCE .....	77
COMMUNITY COLLEGE RELATIONS .....	79
COOPERATIVE EDUCATION .....	79

HONORS PROGRAM .....	80
MINORITY STUDENT SERVICES .....	83
STUDENT ACADEMIC RESOURCE CENTER (SARC) .....	83
STUDENT ACADEMIC SUPPORT SERVICES (SASS) .....	83
<b>ACADEMIC PROGRAMS .....</b>	<b>85</b>
<b>COLLEGE OF ARTS AND SCIENCES .....</b>	<b>91</b>
<b>COLLEGE OF BUSINESS ADMINISTRATION .....</b>	<b>144</b>
<b>COLLEGE OF EDUCATION .....</b>	<b>155</b>
<b>COLLEGE OF ENGINEERING .....</b>	<b>172</b>
<b>COLLEGE OF HEALTH AND PUBLIC AFFAIRS .....</b>	<b>186</b>
<b>CENTER FOR CONTINUING EDUCATION .....</b>	<b>206</b>
<b>INSTITUTES AND CENTERS FOR RESEARCH .....</b>	<b>207</b>
<b>COURSE DESCRIPTIONS .....</b>	<b>212</b>
<b>FACULTY .....</b>	<b>319</b>
<b>FACULTY WITH EMERITUS STATUS .....</b>	<b>344</b>
<b>HONORARY DEGREES AWARDED .....</b>	<b>346</b>
<b>COURTESY FACULTY AND RESEARCH APPOINTMENTS .....</b>	<b>347</b>
<b>INDEX .....</b>	<b>351</b>

Reader comments and suggestions for improving the usefulness of this catalog may be sent to: Undergraduate Catalog, Office of Undergraduate Studies, AD 210/213, UCF, PO Box 160125, Orlando, FL 32816-0125.



## STATE OF FLORIDA BOARD OF EDUCATION

Lawton Chiles .....	Governor
Betty Castor .....	Commissioner of Education
Bob Butterworth .....	Attorney General
Tom Gallagher .....	State Treasurer
Jim Smith .....	Secretary of State
Gerald Lewis .....	Comptroller
Bob Crawford .....	Commissioner of Agriculture

## STATE OF FLORIDA BOARD OF REGENTS

J. Clint Brown, Sr. Chairman .....	Tampa
Alec P. Courtelis, Vice Chairman .....	Miami
DuBose Ausley .....	Tallahassee
Timothy Cerio, Student Regent .....	Gainesville
Robert A. Dressler .....	Fort Lauderdale
Charles B. Edwards, Sr. ....	Ft. Myers
Pat N. Groner .....	Pensacola
Perla Hantman .....	Miami Lakes
James F. Heekin, Jr. ....	Orlando
Cecil B. Keene .....	St. Petersburg
Jon C. Moyle .....	West Palm Beach
Thomas F. Petway III .....	Jacksonville
Carolyn King Roberts .....	Ocala
Charles B. Reed, Chancellor .....	Tallahassee

## PRINCIPAL OFFICERS OF ADMINISTRATION

President .....	John C. Hitt
Provost and Vice President for Academic Affairs .....	Richard Astro
Vice President for Administration and Finance .....	John R. Bolte
Vice President for Student Affairs .....	LeVester Tubbs
Vice President for University Relations .....	D. Robert McGinnis
Vice President for Research .....	Michael Bass

## ADMINISTRATION

### Office of the President

President of the University .....	John C. Hitt
Executive Assistant to the President .....	Vicky Brown
Senior Counsel to the President and Director of Governmental Relations .....	Daniel C. Holsenbeck
Director, Athletics .....	Gene McDowell
Director, Budget Office .....	James G. Smith, Jr.
Director, EEO/AA Programs .....	Janet Balanoff
Director, Internal Auditing .....	Barbara Ratti
University Attorney .....	Ashmun Brown

### Office of the Provost and Vice President for Academic Affairs

Provost and Vice President for Academic Affairs .....	Richard Astro
Associate Vice President for Academic Affairs .....	Frank E. Juge

Associate Vice President for Academic Affairs	J. Edward Neighbor
Associate Vice President and Director, Brevard Campus	Robert W. Westrick
Associate Vice President and Director, Daytona Beach Campus	Sarah Pappas
Associate Vice President and Director, Orlando Area Programs	Thomas A. Shostak
Director, Instructional Resources	Robert L. Arnold
Coordinator for Special Projects	Gwen Haile
Director, Center for Continuing Education	Thomas A. Shostak
Director, International Studies and Programs	Denise Young
Director, Project for Humanities	Stuart Omans
Associate Vice President for Academic Affairs and Dean of Undergraduate Studies	Stuart A. Lillie
Associate Dean, Undergraduate Studies	Paul R. McQuilkin
Assistant Dean, Undergraduate Studies	David R. Dees
Assistant Dean, Undergraduate Studies and Director, Minority Student Services	Robert L. Belle, Jr.
Assistant to the Dean, Undergraduate Studies	C. Barth Engert
Chair, Aerospace Studies (AFROTC)	Lt Col John C. Linn
Chair, Army ROTC—Military Science	LTC. John T. Sanders
Director, Athletic Advising	Sandra B. Reeves
Director, Community College Relations	Ralph C. Boston
Director, Cooperative Education	Sheri E. Dressler
Director of Financial Aid	Mary H. McKinney
Director, Honors Program	Mark Stern
Director, McKnight Center	Cecelia H. Rivers
Director, Special Programs	Cecelia H. Rivers
Director, Student Academic Resource Center	Mary Helen Callarman
Director, Student Academic Support Systems	Russell Tiberii
Director of Admissions and University Registrar	John F. Bush
Associate Director of Admissions	Jeanne Rutenkroger
Associate University Registrar	TBA
Director of Libraries	Anne Marie Allison

### Office of the Vice President for Research

Vice President for Research	Michael Bass
Director of Research	Rusty Okoniewski
Contracts and Grants Manager	Betsy L. Gray
Contract Management Coordinator	Irene P. Marton
Contract Management Coordinator	Douglas Backman
Grant Development Manager	Bruce Furino
Assistant In Grant Development	Julie Voorhees
Assistant in Grant Development	JoAnn Smith
Assistant in Grant Development	Joan J. Norris
Information System Coordinator	James E. Robertson
Information System Programmer	Carol Charbono
Fiscal Manager	William L. Roach
Associate in Fiscal Management	Janet Girard
Assistant in Fiscal Management	Mark Stoneburner
Manager in MIS (Manangement Info. Sys.)	Denise Charleston

### Office of the Vice President for Administration and Finance

Vice President for Administration and Finance	John R. Bolte
Associate Vice President	Joyce A. Clappitt
Assistant Director	Judith E. Monroe
Assistant Vice President, Facilities and Safety	TBA
Director, Business Services	Timothy W. Carroll
Director, Computer Services	William H. Branch
Director, Environmental Health and Safety	Hubert G. Ivie
Director, Facilities Planning	Jerry C. Osterhaus
Director, Institutional Research and Planning	Daniel R. Coleman



Director, Personnel Services .....	Mark A. Roberts
Director, Physical Plant .....	Richard Paradise
Director, Purchasing .....	Walter G. Winstead
Director, University Police .....	Richard P. Turkiewicz
University Controller .....	Linda B. Bonta

### Office of the Vice President for Student Affairs

Vice President for Student Affairs .....	LeVester Tubbs
Associate Vice President & Dean of Students .....	Carol P. Wilson
Associate Vice President for Administration and Research .....	Kenneth Lawson
Assistant Vice President and Director, Student Information & Evening/Weekend Student Services .....	Jimmy Watson
Associate Dean of Students .....	Pamela S. Mounce
Director, Creative School for Children .....	Dolores Burghard
Director, Counseling and Testing Center .....	Robert Harman
Director, Housing and Residence Life .....	Christopher McCray
Director, International Student Services .....	Douglas M. Mowry
Director, Recreational Services .....	Loren Knutson
Director, Student Center/Student Organizations .....	Jimmie Ferrell
Director, Student Health Services .....	John G. Langdon
Director, Career Resource Center .....	James W. Gracey
Director, Veterans' Affairs .....	Ronald H. Atwell
Director, Handicapped Student Services .....	Louise A. Friderici
Director, Student Legal Services .....	Patricia A. MacKown

### Office of the Vice President for University Relations

Vice President for University Relations and Executive Director, UCF Foundation, Inc. ....	D. Robert McGinnis
Assistant Vice President for University Relations and Director, Public Affairs .....	Dean McFall
Controller, UCF Foundation, Inc. ....	Roberta K. Byrum
Director, University Development .....	Emma Lee Twitchell
Director, Alumni Relations .....	Anthony Thompson
Director, Community Relations .....	Candice J. Crawford

## COLLEGES AND DEPARTMENTS

### College of Arts and Sciences

Dean .....	Edward P. Sheridan
Associate Dean .....	Kathryn L. Seidel
Associate Dean .....	TBA
Assistant Dean .....	Bruce A. Whisler
Assistant Dean .....	Diana Velez
Director, Liberal Studies Program .....	Dennis R. Kamrad
Director, OASIS .....	Judith P. Boyte
Director, School of Communication .....	James W. Welke
Acting Chair, Art .....	Jagdish J. Chavda
Acting Chair, Biology .....	David H. Vickers
Chair, Chemistry .....	D. Howard Miles
Interim Chair, Computer Science .....	Terry J. Frederick
Chair, English .....	John F. Schell
Acting Chair, Foreign Languages and Literatures .....	Philip Crant
Acting Chair, History .....	Richard C. Crepeau
Chair, Mathematics .....	Lokenath Debnath
Acting Chair, Music .....	Edward R. Hotaling, Jr.
Acting Chair, Philosophy and Humanities .....	John Riser

Chair, Physics .....	Subir K. Bose
Chair, Political Science .....	Elliot Vitte
Interim Chair, Psychology .....	Margaret H. Thomas
Chair, Sociology and Anthropology .....	David A. Fabianic
Chair, Statistics .....	Mark Johnson
Chair, Theatre .....	Harry W. Smith, Jr.

### College of Business Administration

Dean .....	Richard C. Huseman
Associate Dean .....	John D. Hatfield
Director, School of Accounting .....	Thomas G. Evans
Chair, Economics .....	W. Warren McHone
Chair, Finance .....	Ronnie J. Clayton
Interim Chair, Hospitality Management .....	Ady Milman
Interim Chair, Management .....	Pamela S. Lewis
Interim Chair, Marketing .....	Ray R. Fisk
Coordinator, Undergraduate Programs .....	Helen Y. Hill

### College of Education

Dean .....	TBA
Associate Dean .....	Mary Ann Lynn
Assistant Dean .....	Timothy R. Blair
Interim Chair, Educational Foundations .....	TBA
Chair, Educational Services .....	William C. Bozeman
Chair, Exceptional and Physical Education .....	Michael W. Churton
Chair, Instructional Programs .....	Daniel R. Kirby
Director of Research and Extended Studies .....	Steven E. Sorg

### College of Engineering

Dean .....	Gary E. Whitehouse
Associate Dean, Graduate Studies and Research .....	Stephen L. Rice
Director, Graduate Affairs .....	Fred S. Gunnerson
Associate Dean, Undergraduate Affairs .....	Richard N. Miller
Director, Undergraduate Affairs .....	James K. Beck
Director, Minority Program .....	Jacqueline Smith
Director, Women's Programs .....	Parveen F. Wahid
Director, Publicity .....	Boni Bush
Director, Scholarships and Special Projects .....	Nicholas Hoan
Chair, Civil Engineering and Environmental Sciences .....	A. Essam Radwan
Chair, Computer Engineering .....	Christian S. Bauer
Chair, Electrical Engineering and Communication Sciences .....	Nicolaos S. Tzannes
Chair, Industrial Engineering and Management Systems .....	William W. Swart
Chair, Mechanical and Aerospace Engineering .....	David W. Nicholson
Chair, Engineering Technology .....	James D. McBrayer

### College of Health and Public Affairs

Dean .....	Belinda R. McCarthy
Associate Dean .....	Wendell C. Lawther
Associate Dean .....	M. Jo Edwards
Interim Chair, Communicative Disorders .....	TBA
Chair, Criminal Justice and Legal Studies .....	N. Gary Holten
Interim Chair, Health Sciences .....	TBA
Chair, Molecular Biology and Microbiology .....	Robert N. Gennaro
Chair, Nursing .....	Jean C. Kijek
Chair, Physical Therapy .....	Patricia Yarbrough
Coordinator/Advisor .....	Debbie K. Phillis
Chair, Public Administration .....	Robert B. Denhardt
Chair, Social Work .....	Kenneth J. Kazmerski



# ACADEMIC CALENDAR

## FALL SEMESTER 1992

*March 13	Priority application deadline
March 13	Readmission application deadline
August 17 (1 p.m.)	Residence Halls open for Fall Semester
August 18-21	Orientation and advisement
August 18-21	Registration by appointment
August 24	Classes begin
August 25-28	Add/Drop
August 28	Last day to submit Grade Forgiveness Request
August 28	Last day to adjust class schedule
August 28	Last day of late registration—\$50 late fee
August 28	Last day for refund/fees due
August 28	Graduation application deadline
August 31	Audit registration
September 7	Labor Day Holiday (University-wide)
September 4	Registration deadline for October 3 CLAST
September 17	Last day for removing temporary student status
September 19	MCAT
October 3	LSAT
October 3	CLAST
October 10	GRE
October 16	Withdrawal deadline
October 17	GMAT
October 24	FTCE
November 7	Homecoming
November 11	Veterans' Day Holiday (University-wide)
November 13	Last day to remove an "I" earned last semester
November 26-28	Thanksgiving Holidays (University-wide)
December 3	Classes end for Fall Semester
December 4	Prep day for final exams
December 5	LSAT
December 5-11	Final Examination period
December 11 (4 p.m.)	Residence Halls close
December 12	GRE
December 12	Commencement
December 15 (12 noon)	Grades due in Registrar's Office

\*The University of Central Florida reserves the right to modify this deadline subject to funding and the number of applicants.

If possible, examinations should not be scheduled on days or during the times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. The times and dates of major religious holidays are available from the Office of Undergraduate Studies.

MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2	1	2	3	4	5	6						1	2	3	4						1
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
24	25	26	27	28	29	30	28	29	30	26	27	28	29	30	31	23	24	25	26	27	28	29	30	31			

SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER										
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S				
				1	2	3	4	5					1	2	3	1	2	3	4	5	6	7					1	2	3	4	5
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12				
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19				
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26				
27	28	29	30	25	26	27	28	29	30	31	29	30	27	28	29	30	31														

# ACADEMIC CALENDAR

## SPRING SEMESTER 1993

*October 15	Priority application deadline
October 15	Readmission application deadline
January 6 (1 p.m.)	Residence Halls open
January 7	Orientation and advisement
January 7-8	Registration by appointment
January 11	Classes begin
January 12-13	Add/Drop
January 13	Last day to adjust class schedule
January 13	Last day to submit Grade Forgiveness Request
January 13	Last day of late registration—\$50 late fee
January 13	Last day for refund/fees due
January 14	Audit registration
January 15	Graduation application deadline
January 16	GMAT
January 18	Martin Luther King Day. (University Holiday)
January 22	Registration deadline for February 20 CLAST
January 23	FTCE
February 4	Last day for removing temporary student status
February 6	GRE
February 13	LSAT
February 20	CLAST
February 26	Withdrawal deadline
March 8-13	<b>Spring Holidays</b>
March 20	GMAT
April 2	Last day to remove an "I" earned last semester
April 7	Founders' Day Honors Convocation (Classes cancelled 10 am-noon)
April 17	FTCE
April 17	GRE
April 26	Classes end for Spring Semester
April 17	MCAT
April 27-28	Prep day for final exams
April 29-May 5	Final examination period
May 5 (4 p.m.)	Residence Halls close
May 8	Commencement
May 10 (12 noon)	Grades due in Registrar's Office

\*The University of Central Florida reserves the right to modify this deadline subject to funding and the number of applicants.

If possible, examinations should not be scheduled on days or during the times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. The times and dates of major religious holidays are available from the Office of Undergraduate Studies.

### JANUARY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

### MAY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

### FEBRUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

### JUNE

S	M	T	W	T	F	S
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

### MARCH

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

### JULY

S	M	T	W	T	F	S	
					1	2	3
4	5	6	7	8	9	10	
11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
25	26	27	28	29	30	31	

### APRIL

S	M	T	W	T	F	S		
						1	2	3
4	5	6	7	8	9	10		
11	12	13	14	15	16	17		
18	19	20	21	22	23	24		
25	26	27	28	29	30			

### AUGUST

S	M	T	W	T	F	S	
	1	2	3	4	5	6	7
8	9	10	11	12	13	14	
15	16	17	18	19	20	21	
22	23	24	25	26	27	28	
29	30	31					



# ACADEMIC CALENDAR

## SUMMER "C" SEMESTER 1993

(See also Summer "A" and "B")

<b>*February 15</b>	Priority application deadline
<b>February 15</b>	Readmission application deadline
<b>May 5</b>	Registration deadline for June 5 CLAST
<b>May 12 (1 p.m.)</b>	Residence Halls open for Summer Semester
<b>May 13</b>	Orientation and advisement
<b>May 13-14</b>	*Registration by appointment
<b>May 17</b>	Classes begin
<b>May 18-19</b>	Add/Drop
<b>May 19</b>	Last day to adjust class schedule
<b>May 19</b>	Last day to submit Grade Forgiveness Request
<b>May 19</b>	Last day of late registration—\$50 late fee
<b>May 19</b>	Last day for refund/fees due
<b>May 20</b>	Audit registration
<b>May 21</b>	Graduation application deadline
<b>May 31</b>	Memorial Day Holiday (University-wide)
<b>June 5</b>	CLAST
<b>June 5</b>	GRE
<b>June 10</b>	Last day for removing temporary student status
<b>June 19</b>	GMAT
<b>June 25</b>	Withdrawal deadline
<b>July 5</b>	Independence Day Holiday (University-wide)
<b>July 9</b>	Last day to remove an "I" earned last semester
<b>August 6</b>	Classes end
<b>August 6 (4 p.m.)</b>	Residence halls close
<b>August 7</b>	FTCE
<b>August 7</b>	Commencement
<b>August 9 (12 noon)</b>	Grades due in Registrar's Office

\*The University of Central Florida reserves the right to modify this deadline subject to funding and the number of applicants.

If possible, examinations should not be scheduled on days or during the times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. The times and dates of major religious holidays are available from the Office of Undergraduate Studies.

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2		1	2	3	4	5	6		1	2	3	4	5	6					1	2	3
3	4	5	6	7	8	9	7	8	9	10	11	12	13	7	8	9	10	11	12	13	4	5	6	7	8	9	10
10	11	12	13	14	15	16	14	15	16	17	18	19	20	14	15	16	17	18	19	20	11	12	13	14	15	16	17
17	18	19	20	21	22	23	21	22	23	24	25	26	27	21	22	23	24	25	26	27	18	19	20	21	22	23	24
24	25	26	27	28	29	30	28							28	29	30	31				25	26	27	28	29	30	
31																											
MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1		1	2	3	4	5					1	2	3	1	2	3	4	5	6	7	
2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
23	24	25	26	27	28	29	27	28	29	30	31			25	26	27	28	29	30	31	29	30	31				
30																											

# ACADEMIC CALENDAR

## SUMMER "A" TERM 1993

*February 15	Priority application deadline
February 15	Readmission application deadline
May 5	Registration deadline for June 5 CLAST
May 12 (1 p.m.)	Residence Halls open for Summer "A" term
May 13	Orientation and advisement
May 13-14	Registration by appointment
May 17	Classes begin for Summer "A" Term
May 18-19	Add/Drop
May 19	Last day to adjust class schedule
May 19	Last day to submit Grade Forgiveness Request
May 19	Last day for refund
May 19	Last day for late registration—\$50 late fee
May 20	Audit registration
May 21	Graduation application deadline
May 31	Memorial Day Holiday (University-wide)
June 4	Withdrawal deadline
June 5	CLAST
June 5	GRE
June 10	Last day for removing temporary student status
June 19	GMAT
June 25	Classes end
June 25 (4 p.m.)	Residence Halls close
June 30 (12 noon)	Grades due in Registrar's Office
August 7	FTCE
August 7	Commencement

\*The University of Central Florida reserves the right to modify this deadline subject to funding and the number of applicants.

If possible, examinations should not be scheduled on days or during the times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. The times and dates of major religious holidays are available from the Office of Undergraduate Studies.

**JANUARY**

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

**MAY**

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

**FEBRUARY**

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

**JUNE**

S	M	T	W	T	F	S
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

**MARCH**

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

**JULY**

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

**APRIL**

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

**AUGUST**

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			



# ACADEMIC CALENDAR

## SUMMER "B" TERM 1993

<b>*February 15</b>	Priority application deadline
<b>February 15</b>	Readmission application deadline
<b>May 13-14</b>	Registration (see also June 25)
<b>May 18-19</b>	Add/Drop (see also June 29)
<b>May 21</b>	Graduation application deadline
<b>June 25 (5 p.m.)</b>	Residence Halls open
<b>June 25</b>	Orientation and advisement
<b>June 25</b>	Registration by appointment
<b>June 28</b>	Classes begin
<b>June 29</b>	Add/Drop
<b>June 29</b>	Last day to adjust class schedule
<b>June 29</b>	Fees Due
<b>June 29</b>	Last day of late registration — \$50 late fee
<b>June 29</b>	Last day for refund/fees due
<b>June 29</b>	Last day to submit Grade Forgiveness Request ("B" term only)
<b>June 30</b>	Audit Registration
<b>July 5</b>	Independence Day Holiday (University-wide)
<b>July 16</b>	Withdrawal deadline
<b>July 16</b>	Last day to remove an "I" earned last semester
<b>July 24</b>	Last day for removing temporary student status
<b>August 7</b>	FTCE
<b>August 6</b>	Classes end
<b>August 6 (4 p.m.)</b>	Residence Halls close
<b>August 7</b>	Commencement
<b>August 9 (12 noon)</b>	Grades due in Registrar's Office

\*The University of Central Florida reserves the right to modify this deadline subject to funding and the number of applicants.

If possible, examinations should not be scheduled on days or during the times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. The times and dates of major religious holidays are available from the Office of Undergraduate Studies.

JANUARY						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

MAY						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

FEBRUARY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

JUNE						
S	M	T	W	T	F	S
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MARCH						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JULY						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

APRIL						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

AUGUST						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## CAMPUS SERVICES DIRECTORY

OFFICE/SERVICE	LOCATION	CAMPUS EXTENSION or (407) 823-
A.A. DEGREE APPLICATION	Registrar/Records AD 1st Floor	3-3100
ACADEMIC CLASSIFICATION	Registrar AD 1st Floor	3-3100
ACADEMIC RESOURCE CENTER	PC-1 102	3-5130
ACADEMIC STATUS	Registrar AD 1st Floor	3-3100
	(or Academic Advisor in College)	
ADD/DROP	Registrar/Records (Class Schedule lists dates for current term)	
ADDRESS CHANGE	Registrar/Records AD 1st Floor	3-3100
ADMISSIONS/STANDARDS COMMITTEE	Admissions AD 1st Floor	3-3000
AUDIT A CLASS	Registrar/Records AD 1st Floor	3-3100
	(Details in UCF Catalog & Class Schedule)	
BANKING—see Credit Union		
BOARD ROOM	AD 3rd Floor	
BOOKS, SUPPLIES, & SUNDRY ITEMS	Bookstore, Student Services	3-2665
CAREER RESOURCE CENTER	AD 124	3-2361
CATALOGS	Bookstore, Student Services	3-2665
CERTIFICATION OF ENROLLMENT:		
INTERNATIONAL STUDENTS	Registrar/Records AD 1st Floor	3-3100
GOOD STUDENT DISCOUNT	Registrar/Records AD 1st Floor	3-3100
FINANCIAL AID & LOANS	Registrar/Records AD 1st Floor	3-3100
CHANGE OF MAJOR	Present Department	
CHECK CASHING	Bookstore, Student Services	3-2665
CLAST INFORMATION	Student Academic Resource Center, PC1-102	3-5130
CLEP	Counseling & Testing RS 203	3-2811
CONTINUING EDUCATION, CENTER FOR	Research Pavilion/ Research Park	249-6100
COOPERATIVE EDUCATION	PH 210	3-2667
COUNSELING:		
ACADEMIC	Academic Advisor (Degree Program Advisor)	
ADMISSIONS	Admissions AD 1st Floor	3-3000
CAREER	Counseling & Testing RS 203 and Career Resources Center AD 124	3-2811 3-2361
PERSONAL	Counseling & Testing RS 203	3-2811
RELIGIOUS	Campus Ministry SC 208	3-2468
CREDIT BY EXAMINATION	Department Chair	
CREDIT UNION	Credit Union, Student Services	3-2855
DECALS (PARKING)	Police Department	3-5812
<b>EMERGENCY</b>	<b>Fire, Police, Ambulance</b>	<b>9-1-1</b>
FINANCIAL AID	AD 120	3-3200
FLORIDA RESIDENT AFFIDAVIT	Admissions AD 1st Floor	3-3000
FRATERNITIES	Student Affairs AD 282	3-2177
GORDON RULE	Undergraduate Studies AD 210	3-2691
GRADE FORGIVENESS	Registrar/Records AD 1st Floor	3-3100
GRADUATE ADMISSIONS-LIAISONS	AD 146	3-2766
GRADUATION	Graduation Area/Registrar	3-2842
HANDICAPPED STUDENTS	Handicapped Student Coordinator AD 282	3-2371
HEALTH INSURANCE	Wellness Center	3-5841
"HOLD" CLEARANCES	Registrar/Records AD 1st Floor	3-3100
HOUSING (Campus/Off-Campus)	Housing Office SC 137	3-4663
"I.D." CARD INFORMATION	Business Services AD 362	3-2624



<u>OFFICE/SERVICE</u>	<u>LOCATION</u>	<u>CAMPUS EXTENSION</u>
INTERNATIONAL STUDENTS	International Student Services AD 225	3-2337
INTRAMURALS	Recreational Services RS 101	3-2408
LEISURE PROGRAMS	Student Center	3-2117
LIBERAL STUDIES PROGRAM	AD 384	3-2351
LOST AND FOUND	KIOSK	3-2060
MEDICAL WITHDRAWAL	Undergraduate Studies AD 210	3-2691
MINORITY STUDENT SERVICES	AD 225	3-2716
NAME CHANGE ON RECORDS	Registrar/Records AD 1st Floor	3-3100
ORIENTATION	SASS, PH	3-5332
PARKING SERVICES/DECALS	Police Department, Libra Drive	3-5812
POLICE DEPARTMENT		
NON-EMERGENCY	Libra Drive	3-5555
READMISSION APPLICATION	Admissions AD 1st Floor	3-3000
SCHOLARSHIPS	Financial Aid AD 120	3-3200
	Undergraduate Studies or College of major	3-2691
SENIOR CITIZEN FEE WAIVER	Registrar/Records AD 1st Floor	3-3100
SORORITIES	Student Affairs AD 282	3-2177
STUDENT CENTER ROOM		
RESERVATIONS	Student Center	3-2633
STUDENT EMPLOYMENT	Center Resource Center AD 124	3-2361
	Financial Aid AD 120	3-2827
SUMMER CREDIT WAIVER	Undergraduate Studies AD 210	3-2691
TESTING: SAT, ACT, MCAT, GRE, GMAT	Counseling & Testing RS 203	3-2811
TICKETS: ATHLETIC	Athletic Ticket Office/Arena	3-1000
THEATRE (Discount tickets)	KIOSK	3-2060
TRANSCRIPTS:		
ACADEMIC (official & unofficial)	Registrar/Records AD 1st Floor	3-3100
FINANCIAL AID	Financial Aid AD 120	3-3200
TRANSFER HOURS SENT TO UCF	Admissions AD 1st Floor	3-3000
REQUESTS SENT FROM UCF	Registrar/Records AD 1st Floor	3-3100
TRANSIENT STUDENT		
FORMS/APPLICATIONS:		
OUTGOING	Registrar/Records AD 1st Floor	3-3100
INCOMING	Admissions AD 1st Floor	3-3000
VETERANS' BENEFITS	Veterans' Affairs SC 132	3-2707
WITHDRAWAL FROM COURSES OR		
UNIVERSITY	Registrar/Records AD 1st Floor	3-3100
CAN'T FIND AN ANSWER?	Dean of Students AD 282	3-2851

# UNIVERSITY OF CENTRAL FLORIDA

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

## STATEMENT OF PURPOSE

The University of Central Florida is a general-purpose state university which serves the needs of the immediate community and the larger region in which it is located. UCF serves its national and international constituents through its quest for new knowledge, the enrichment of the imagination, and the preservation of the knowledge and learning gleaned from previous generations and civilizations.

The University offers educational and research programs in such diverse fields as aerospace, banking, electronics, health, and tourism. UCF's programs in communication and the fine arts help to meet the cultural and entertainment needs of a growing metropolitan area.

UCF's general education program produces well-rounded men and women with a balance of communicative and mathematical skills; historical, social, and scientific knowledge; and ethical, aesthetic, and artistic sensitivity.

In brief, the University's purpose is to provide its students with an enhanced opportunity to lead productive and meaningful lives.

## INSTITUTIONAL PHILOSOPHY

The University of Central Florida philosophy is based upon two tenets: Accent on the Individual and Accent on Excellence. The University believes in the individual worth of each person and especially encourages the responsible individual who strives for excellence in every activity.

Research is considered an important part of advanced study, and UCF provides students with opportunities for research projects and independent study. Many projects involve community service and opportunities for students to experience real situations while receiving individual guidance from faculty.

UCF adheres to the principle that the University is primarily a community of national and international scholars, in pursuit of knowledge and active in teaching, learning, and doing research. The presence of international students on the campus contributes substantially to the quality of the educational experience for everyone. International students bring to the classroom unique viewpoints and perceptions which would otherwise be lost to the U.S. students. Effective personal contact across cultures can reduce errors in understanding another's problems and can foster a climate of international peace and cooperation among people of the world today.

In order to serve the community better, the University of Central Florida makes higher education easily available to the citizens of East Central Florida by operating off-campus centers and offering off-campus credit courses to citizens of the area.

## ACCREDITATION

The University of Central Florida is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools as a Level IV, general post-secondary institution. The following scientific, professional, and academic bodies also confer accreditation in the listed disciplines and groups of disciplines.

College/discipline	Accrediting Body
Arts and Sciences Chemistry Music	American Chemical Society National Association of Schools of Music (NASM)
Business Administration (all disciplines)	American Assembly of Collegiate Schools of Business (AACSB)



Education (all disciplines)	Florida State Department of Education National Council for Accreditation of Teacher Education (NCATE)
Engineering Aerospace Engineering Civil Engineering Computer Engineering Environmental Engineering Electrical Engineering Industrial Engineering Mechanical Engineering	Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET)
Health and Public Affairs Cardiopulmonary Science  Medical Record Administration Medical Technology  Nursing Radiologic Technology Social Work Speech Pathology	Joint Review Commission on Respiratory Therapy Education in Conjunction with CAHEA of AMA. Council on Allied Health Education Accreditation Committee on Allied Health Education and Accreditation National Accrediting Agency for Clinical Laboratory Services National League for Nursing (NLN) Council on Allied Health Accreditation Council of Social Work Education American Speech Language and Hearing Association (ASHA)

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.

### **EAST CENTRAL FLORIDA AREA**

UCF is located in East Central Florida, a region with a population of about two million. Known principally for its tourist attractions, the area is one of the fastest growing regions in the nation. East Central Florida is noted for its many lakes. Atlantic beaches are an easy hour drive from the main campus. The area offers Walt Disney World and other attractions that draw more vacationers here than anywhere else. The area also offers the Florida Symphony Orchestra, Broadway productions, pop and classical music headliners, art festivals, a Shakespeare festival of UCF origin, the National Basketball Association's Orlando Magic and restaurants of every type and price.

### **THE ORLANDO CAMPUS**

The 1,227-acre campus is located in the Orlando suburbs, 13 miles northeast of downtown. Forty-nine permanent buildings—valued at more than \$100 million—radiate outwards from an academic core, where UCF's colleges, classrooms and library are located. More than \$90 million in new construction, including a 700-bed residence hall and \$11 million student union, is planned over the next three years. An \$8.6-million art complex is slated to open during the 1991-92 year, following the completion last year of a 6,500 seat field house. UCF recreational facilities include lighted tennis and raquetball courts, an outdoor swimming pool, golf driving range, volleyball and basketball courts and ball fields.

## 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, Daytona Beach and South Orlando. Times and dates for all courses are listed in the regularly published schedule of classes.

### UCF Brevard Area Campus

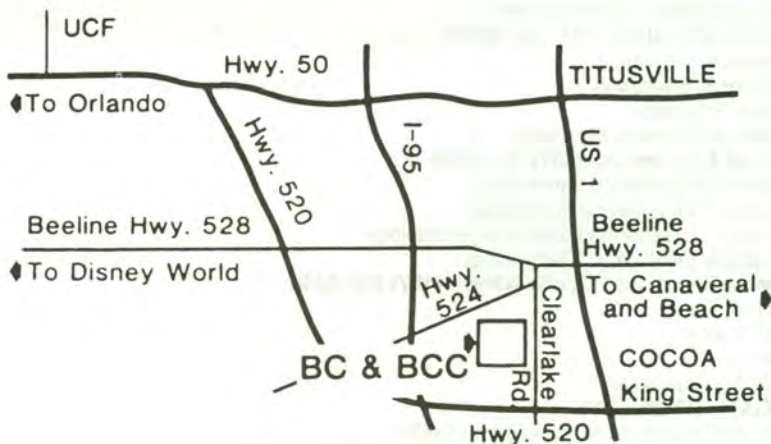
Clark Maxwell, Jr. Lifelong Learning Center  
1519 Clearlake Road  
Cocoa, FL 32922

Associate Vice President and Campus Director:  
Robert W. Westrick  
(407) 632-0067 UCF Ext. 50-5567

Associate Director, Academic Affairs  
James O. Hill  
(407) 632-0067 UCF Ext. 50-5565

Assistant Director, Academic Support Services  
(Admissions, Registration, Records, Financial Aid)  
James L. Nelson  
(407) 632-4127 UCF Ext. 2102 or 2104

Advising Coordinator/Counselor  
Doyce Walter  
(407) 632-4129 UCF Ext. 50-5561



The University of Central Florida, Brevard Campus, is housed in the Clark Maxwell, Jr. Lifelong Learning Center on the Cocoa campus of Brevard Community College. The University offers junior, senior, and graduate-level courses and programs. Freshman and sophomore-level courses are provided by Brevard Community College. Students who have completed the Associate of Arts Degree are able to select from 17 baccalaureate programs offered by the University in Brevard. Newly admitted or currently enrolled UCF students may also register in selected upper division elective courses presented at UCF-Brevard. Graduate programs are offered in Education, Business, Public Administration, and Engineering.

The coordination between the University of Central Florida and Brevard Community College for the 2+2 baccalaureate degree has become a model for other institutions of higher education in the State of Florida.





UCF at Daytona Beach

Credit: Tobey Johns, DBCC Photo

**College of Arts & Sciences (407) 632-4129**

- Computer Science (Minor)
- Psychology (course work only)
- Liberal Studies Program (B.A./B.S.)

**College of Business (407) 632-0098**

- Accounting (coursework only)
- General Business Administration

**College of Education (407) 631-5339**

- Elementary Education
- Exceptional Education
- Science Education
- Vocational/Technical Education

**College of Engineering (407) 631-5366**

- Computer Engineering Technology
- Electronics Engineering Technology
- Information Engineering Systems Technology
- Operations Engineering Technology

**College of Health and Public Affairs (407) 631-5440**

- Criminal Justice
- Legal Studies
- Nursing
- Public Administration

**GRADUATE PROGRAMS**

- Masters of Business Administration (MBA)
- Masters of Education Administration & Supervision (MEd)
- Masters of Education Elementary Education (MEd)
- Master of Education Exceptional Education (MEd)
- Masters in Public Administration (MPA)
- Engineering (coursework only)
  - FEEDS/ITV Graduate Engineering
  - (Courses on videotape)

For information concerning the campus contact the Admissions Office at the University of Central Florida-Brevard.

## UCF at Daytona Beach

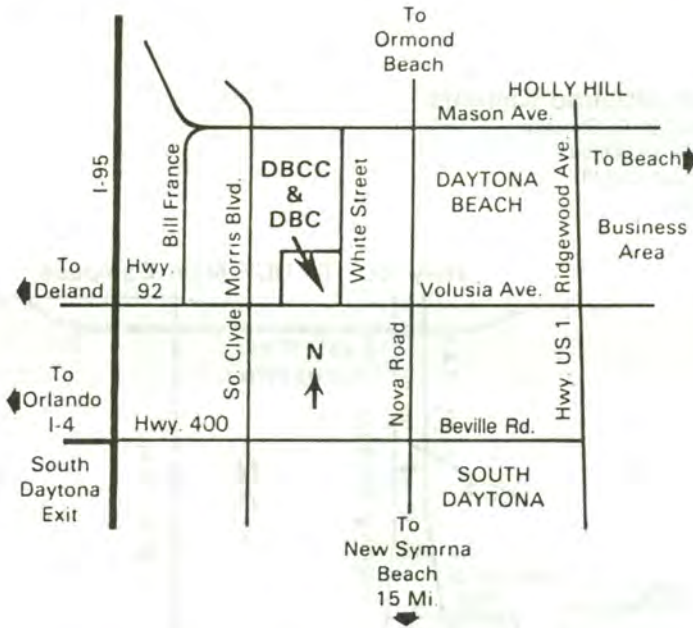
UCF/DBCC Higher Education Center  
1200 Volusia Avenue  
P. O. Box 2811  
Daytona Beach, Florida 32120-2811  
(904) 255-7423

Assistant Director, Student Services:  
William J. Wetherell  
(904) 255-7423 Ext. 4022

Director of Undergraduate Advising:  
Sylvester Covington  
(904) 254-4460 Ext. 4017

Associate Vice President and Campus Director:  
Sarah H. Pappas  
(904) 255-7423 Ext. 4012

Associate Campus Director:  
David C. Jordan  
(904) 255-7423 Ext. 4023



The Daytona Beach Campus of the University of Central Florida is located in a new two-building Higher Education Center it shares with Daytona Beach Community College. The faculty and staff at the new facility have a strong commitment to serve the residents of Volusia and Flagler counties. In Daytona Beach, UCF offers junior, senior, and graduate level courses and programs. Freshman and sophomore level courses are provided by Daytona Beach Community College. Together, the two institutions provide the "2 + 2" Baccalaureate Degree. Additional courses and programs will be added as needs are identified.

At present, undergraduate and graduate-level degree programs are offered in the following academic disciplines:

### College of Arts & Sciences (904) 254-4412

- Liberal Studies Program
- Psychology

### College of Business Administration (904) 254-4412

- General Business Administration
- Finance (partial)
- Management (partial)
- Marketing (partial)



**College of Education (904) 254-4428**

Elementary Education  
Vocational Education

**College of Health & Public Affairs (904) 254-4412**

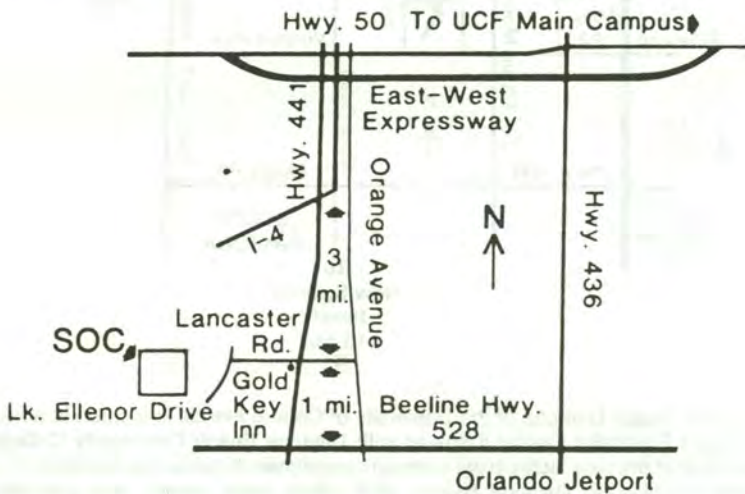
Criminal Justice  
Nursing

**Graduate (Master's Level) Programs**

Business Administration (M.B.A.)  
Counselor Education  
Educational Leadership  
Elementary Education  
Engineering (Video)  
Public Administration  
Vocational Education

**UCF South Orlando Campus**

Director: Thomas A. Shostak  
7300 Lake Ellenor Drive  
Orlando, Florida 32809  
(407) 855-0881



The South Orlando Campus of the University of Central Florida is located on Lake Ellenor Drive in Orlando Central Park (west of South Orange Blossom Trail between Oak Ridge and Sand Lake Roads), a location convenient to students who live or work in southwest Orange County and north Osceola County.

The South Campus offers upper division evening courses in business administration and the arts & sciences, undergraduate and graduate vocational education classes, and a graduate engineering program. It also provides a variety of non-credit programs specifically designed to meet the needs of business and industry located in the area, and serves as a site for state-wide seminars and workshops.

## ENDOWED CHAIRS

Endowed chairs are established under terms of the 1980 Florida Eminent Scholars Act, which provides \$420,000 in state funds to match \$600,000 in contributions from private sources within a 6-year period. UCF presently has six 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. The Chair: Dr. 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. The Chair: Dr. 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. The Chair: Dr. Kristin G. Congdon.

**Carl H. Galloway Chair in Business Administration**—Created in 1986 to honor Carl Galloway, a pioneer in telecommunications. This chair will establish a Ph.D. program in Business Administration.

**Cobb-L.J. Hooker Chair in Optical Sciences and Engineering**—Created in 1988 as the largest academic gift ever received by UCF. The gift supports the work of an internationally recognized scholar in laser and optical sciences. The Chair: Dr. George I.A. Stegeman.

**General Mills 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.

**Sun Bank Chair in Banking**—in progress

**Al Burnett/Contemporary Cars Chair in Accounting**—in progress

**Bert Fish Memorial Chair in Nursing Education**—in progress

## INTERNATIONAL STUDIES AND PROGRAMS

**Director:** Denise L. Young, PC 42, Room 114 (Social Work Building), Phone (407) 823-5375

**Coordinator, Study Abroad Programs:** A. V. Cervone, HFA 209, Phone (407) 823-5375

The University of Central Florida offers a number of programs which give students an opportunity to gain first-hand information on the language, customs, economy, geography, politics, and the arts of societies abroad. Such programs involve travel abroad or study concentration on campus.

The Office of International Studies and Programs coordinates efforts of the various international programs on UCF's campus and provides students, faculty, and the community with information concerning both these programs and opportunities for study abroad. The office:

- promotes student and faculty exchange programs with universities abroad;
- cooperates with the directors and faculty of the Area Studies Programs to develop new courses and areas of concentration dealing with foreign cultures;
- assists any department in the University that wishes to internationalize its curriculum;
- assists individual faculty and departments in their application for grants to develop foreign language and culture teaching techniques;
- assists and promotes the development of extracurricular activities related to foreign cultures, both on campus and in the community;
- encourages public and private enterprise to explore and pursue those areas of common interest that will be of mutual benefit to students and companies involved;
- cooperates with the International Student Office to promote international students' participation in campus and community life.

The office is also a repository of faculty resource capabilities, programs, and research efforts in the field of international studies. These resources are available to the University and the community.

Ten to 15 semester credits may be earned through study abroad programs. Credit earned in these programs may be applied toward satisfying the summer credit requirement and the 30-hour residency requirement. Financial aid may be used on all UCF programs. All programs are approved by the Board of Regents and are open to all students in the State University System.



The primary purpose of study abroad programs is to improve the linguistic and cultural proficiency of the participants. Previous knowledge of the foreign language is advised but not required. Study abroad programs feature intensive language courses at the elementary, intermediate, and advanced levels. Students are placed in language classes according to their previous training. Admission requirements are a grade point average of 2.0 or better and evidence of good health, emotional stability, maturity, and adaptability.

#### **Cambridge Program**

This program consists of two, three, or four-week sessions at the International Summer School in Cambridge, England. Courses in English Literature and Arts History are available through this program. The number of credits varies according to length of stay. Contact: Dr. Gerald Schiffhorst, FA 450, (407) 823-2279.

#### **Florida-Tilburg Program**

The Florida-Tilburg Program is operated by UCF, FSU, and Tilburg University, The Netherlands. The four-course sequence addresses the economic issues of the European Community, combining academic study with travel to points of interest in the political and economic institutions of the European Community. All the classes are taught in English. Contact: Dr. Thomas Martin, CB II 322 (407) 823-5549.

#### **INSA Program in Lyon, France**

The program is based on an agreement between UCF and the Institut des Sciences Appliquées de Lyon which gives engineering students from these institutions an opportunity to do one year of internship. Two years of French are required for UCF students.

#### **Jerusalem—One Year of Science and Research at the Hebrew School**

The Rothberg School for Overseas Students offers visiting research opportunities for English-speaking students in the Arts and Sciences. The program is open to students with a B.A. degree or an equivalent in the field they wish to research. Other programs for undergraduate or graduate students are also offered. Many Scholarships and loans are available. Please contact the Office of International Studies for further information. Contact: Dr. Moshe Pelli, FA 550 (407) 823-5039

#### **Lyon Exchange Program**

This program provides for an even exchange of student between UCF and the University of Lyon, France. Two years of college French are required. This program is open to students from any college, except the College of Engineering (see INSA Program). The unique feature of this program is that qualified students are able to study for one academic year in Lyon for approximately the same amount of money that would be required for them to attend UCF, plus air transportation. Contact: Dr. Anthony Cervone, FA 209, (407) 823-5375

#### **Madrid-EI Escorial**

The Department of Foreign Languages is offering a summer program in Spain from June 28 — August 7. Students will have daily access to vibrant Madrid and quaint EI Escorial, as well as travel to many cities of historic and cultural value. Contact: Dr. Nadia Patrone, FA 214, (407) 823-2466.

#### **Study and Research in the Andes**

Study and research in Merida, Venezuela for six weeks in the summer. The first session is May 13-June 24 while the second session is June 24-August 5. Fall and Spring semesters are also available, with the Fall Program beginning on August 30 and continuing until December 4. Students have an option of taking intensive Spanish classes or doing research studies and internships. Included in the program are weekly conferences about folklore, architecture, the latest archaeological discoveries in the Andean region, literature and other topics. Participants have the opportunity to tour the sites of Merida and participate in sports. Contact: Dr. Anthony Cervone, HFA 209, (407) 823-5375.

#### **Urbino, Italy**

The Fourteenth Annual summer study program in Urbino is being offered from July 1 through August 7. Visits to Urbino, Rome, Tivoli, Pompeii, Florence, and Padua are part of



the curriculum. Also, courses in intensive Italian and the history of Italy are offered in this city that is rich in Roman and Medieval history. For further information direct questions to Dr. Anthony Cervone, HFA 209, (407) 823-5375 or Dr. Nadia Patrone, FA 443, (407) 823-2466.

### Other Programs

The Office of International Studies also makes available summer, semester, or year-long programs to the following countries: Austria, Brazil, Canada, Denmark, Germany, Israel, Mexico, and the USSR. All programs carry UCF credit unless otherwise noted. Contact: Dr. Anthony Cervone, FA 205, (407) 823-5375.

For information on additional international studies and programs, look under these listings:

- Asian Studies
- Canadian Studies Program
- Center for Multilingual, Multicultural Studies
- Foreign Study Centers
- Judaic Studies Program
- Latin American Area Studies
- Soviet Area Studies

## UNIVERSITY LIBRARIES

**Director:** Anne Marie Allison, LR 512, Phone (407) 823-2564

**Associate Director:** Orlyn B. LaBrake, LR 512, Phone (407) 823-2564

**Professional Staff:** Joseph C. Andrews, Janice W. Bain, R. Rochelle Ballard, Norris S. Bazemore, Mem T. Catania, Jeffrey A. Franks, Elba C. Grovdahl, Vicki C. Hamaker, Carole S. Hinshaw, Suzanne E. Holler, Sharon L. Hood, Phyllis J. Hudson, Patricia E. Kenly, Chang C. Lee, Cheryl G. Mahan, Ted R. Pfarrer, Peter C. Rossi, Phyllis L. Ruscella, Margaret K. Scharf, Roger D. Simmons, Marilyn R. Snow, Jeffrey D. Sowder, June S. Stillman, Linda J. Sutton, Cheryl D. Walters, John S. Walters, Jeanette A. Ward.

The University Library, housed in a facility of 200,000 square feet, has a collection of over 830,000 volumes with approximately 6,300 subscriptions (journals, newspapers, and other serials) and over 7,000 media titles. The Library is a partial depository for US and Florida documents, and US Patents. The Library online catalog, called LUIS, may be accessed through terminals in the Library, at other Campus locations, or from personal computers at home. Through LUIS, Library users can determine whether the UCF Library owns a particular item, and the location and availability of the item. In addition, LUIS also provides online access to catalogs of all state university libraries in Florida, and to ERIC and IAC Academic and Business Indexes.

The University Library is open approximately 95 hours each week, including evenings and weekends. A shortened schedule is maintained during vacation periods, and hours are extended during the last few weeks of each semester. A staff of professional librarians and paraprofessionals is available to assist and advise those using the Library. Arrangements may also be made for class or small group instruction. Faculty, staff, and students can obtain materials not available in the Library's collections through the Interlibrary Loan service. The Library can provide customized computer-produced bibliographies from any of approximately 500 different commercially available databases.

Special services are provided for the handicapped. By using a computer terminal, handicapped students can determine the availability of the books they need, and telephone the Library to request that books be brought to them at a convenient location on campus. A Kurzweil reading machine is available in the Library for the visually impaired; students or faculty may arrange for instruction in its use. Through the cooperation of the University's Office of Handicapped Student Services and the Florida Bureau of Blind Services, the Library staff can aid handicapped students in obtaining special equipment they may need to use Library resources.

Students enrolled in the University's extended campus centers in Daytona Beach and Brevard County receive a full range of services from the Daytona Beach Community College Library and the Brevard Community College Library. Students at the South Orlando Campus have access to a small reference collection and "electronic" library. Online access to the catalog of the main Library collection is available from all branch campus locations and materials are delivered through a regular courier service.



## **UNIVERSITY OF CENTRAL FLORIDA PRESS**

THE UCF Press is a member of *UNIVERSITY PRESSES OF FLORIDA*. The UCF Press actively solicits clearly-written scholarly manuscripts and original unpublished manuscripts of poetry for its Contemporary Poetry Series. Current submission guidelines may be obtained from: Director, UCF Press, Office of Graduate Studies, University of Central Florida, Orlando, FL 32816. The UCF Press selects a limited number of outstanding manuscripts for publication each year as UCF Press books. The printing, binding, distribution, and ordering of these books are handled through the central office of University Presses of Florida. A complete catalog may be obtained by writing to: University Presses of Florida, 15 NW 15th St., Gainesville, FL 32603.

## **UNIVERSITY OF CENTRAL FLORIDA FOUNDATION, INC.**

The UCF Foundation, Inc. is a non-profit, tax-exempt corporation directed by a 60 member community based Board of Directors that encourages, solicits, receives, and administers private gifts and bequests of property and funds for scientific, educational, and charitable purposes. All gifts to UCF are received and processed through the Foundation for support of the University.

## **OFFICE OF INSTRUCTIONAL RESOURCES**

Instructional Resources provides UCF faculty with graphic, photographic, radio and television production; a full range of audiovisual and classroom support services; and a wide range of instructional development assistance and consultation. Instructional Resources also administers the Center for Faculty Support, the Multimedia Center, Brevard Educational Cable Network ITFS television, and WUCF-FM.

Instructional Resources, through the Division of Sponsored Research, provides design, production, and presentation support to University-affiliated organizations, other educational institutions, educational non-profit organizations which have UCF faculty or staff as members, and local non-profit public service organizations.

## **UNIVERSITY BOOKSTORE**

The University Bookstore is owned and operated by the University of Central Florida. The University Bookstore is conveniently located in the Student Services Building and is open to the public. In addition to textbooks and school supplies, this facility offers a complete line of UCF insignia clothing and gift items. A brochure of UCF items is available for mail order purchases. Please call (407) 823-2665 to request a brochure or inquire about store hours.

## **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. 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 country, golf, football, soccer, track, and tennis. Women's sports include basketball, cross country, golf, soccer, track, tennis, and volleyball. Crew and waterskiing are intercollegiate club sports for both men and women.

## **PROJECT FOR THE DEVELOPMENT OF THE HUMANITIES AND FINE ARTS**

The Project for the Development of the Humanities and Fine Arts serves as a cultural bridge between the University and the community. Leading Renaissance and Elizabethan scholars, musicians, theatre professionals, and dancers offer community-wide lectures and demonstrations and conduct seminars for community college and high school humanities and arts faculty. The Project holds an annual festival in the spring. Volunteer positions are available within the festival. For further information, contact: Orlando Shakespeare Festival, 30 S. Magnolia Ave., Suite 250, Orlando, Florida 32801, 407/423-6905

## **CENTRAL FLORIDA RESEARCH PARK**

The Central Florida Research Park, abutting the main UCF campus, is a university related research park established as a result of legislation passed by the Florida Legislature



in 1978. The Park is a cooperative effort between the University of Central Florida, the Orange County Research and Development Authority, and the Orange County Board of County Commissioners (who appoint the members of the Authority). The governing body of the Park is the Orange County Research and Development Authority.

The objectives of the Central Florida Research Park are in keeping with the legislative action which 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/industry community resulting in a unique approach to the creation of a more effective cooperative academic/industrial endeavor. 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 attractive environment conducive to the location of research-oriented industry in the Park. This activity will enrich and support the academic, teaching, and research programs of the University. The University, in turn, as a community of scholars, reservoir of knowledge past and present, and creator of new knowledge and discovery, can provide the necessary expertise and human resources to enhance the research and development activities required and planned by Park residents.

Totally planned to provide a campus-like environment for business adjacent to UCF, the Central Florida Research Park consists of over 1,000 acres of land. Businesses which desire 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.

Four University organizations including the Institute for Simulation and Training, and the Center for Research in Electro-Optics and Lasers (CREOL), are located in the Research Park. The U.S. Naval Training Systems Center (NTSC), the focal point of the nation's simulation and training industry, has its headquarters in the Research Park. Over 700 million dollars a year in federal contracts is granted by NTSC each year.

Currently over 70 companies are located in the Research Park pursuing activities in simulation and training, lasers, optical filters, behavioral sciences, diagnostic test equipment, and oceanographic equipment. Almost 4,000 employees currently work in the Research Park including many students and faculty.

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 the use of the library computer resources and laboratory facilities. Cooperative projects range from technical research to developing business plans and employee training programs.

## **OAK RIDGE ASSOCIATED UNIVERSITIES (ORAU)**

The University of Central Florida is a sponsoring institution of Oak Ridge Associated Universities (ORAU), a not-for-profit consortium of 62 colleges and universities and a management and operating contractor for the U.S. Department of Energy (DOE) with principal offices located in Oak Ridge, Tennessee. Founded in 1946, ORAU identifies and helps solve problems in science, engineering, technology, medicine, and human resources, and assists its member universities to focus their collective strengths in science and technology research on issues of national significance.

ORAU manages the Oak Ridge Institute for Science and Education (ORISE) for DOE. ORISE is responsible for national and international programs in science and engineering education, training and management systems, energy and environment systems, and medical sciences. ORISE's competitive programs bring students at all levels, precollege through postgraduate, and university faculty members into federal and private laboratories.

ORAU's office for University, Industry, and Government Alliances (UIGA) seeks out opportunities for collaborative alliances among its member universities, private industry, and federal laboratories. Current alliances include the Southern Association for High Energy Physics (SAHEP) and the Center for Bio-Electromagnetic Interaction Research (CBEIR). Other UIGA activities include the sponsorship of conferences and workshops, the Visiting Scholars program, and the Junior Faculty Enhancement Awards.

For additional information contact Dr. Michael Bass, Vice President for Research, AD 243, Phone (407) 823-3778.





# STUDENT AFFAIRS

## INTRODUCTION

The term "student affairs" is used collectively to refer to the Student Affairs Division and its many functional departments responsible for the administration and management of programs, services, facilities, and activities designed to support the educational mission of the University. The Division of Student Affairs exists primarily to enhance the teaching and learning process through its many programs and services. The Division, headed by a Vice President for Student Affairs, administers programs involving orientation, personal counseling, testing, housing, health services, international student services, recreational services, career planning and placement, student organizations, veterans' affairs, and other special activities. Students are invited to consult the staff of Student Affairs concerning any aspect of campus life.

Personal development may be enhanced through informed, experienced, and dedicated participation in University and community activities. Frequently, activities are referred to as "extracurricular," but at the University of Central Florida student activities are regarded as a part of the total educational program—a supplement to the individual student's academic program. The University sponsors a variety of cultural and entertainment programs which contribute to the student's social, cultural, recreational, and academic development. Students can become better acquainted with fellow students and faculty members through participation in student activities. The University provides ample opportunity to become a member of occupational, professional, social, and honorary organizations.

## OFFICE OF THE DEAN OF STUDENTS

The Office of the Dean of Students is the primary source for students seeking information on non-academic areas of the University. The office staff strives to introduce students to educational opportunities designed to provide personal, social, and academic growth outside the classroom. Additionally, the Deans supervise the judicial affairs process as well as counsel students confronted with a variety of difficulties, referring students for specialized professional services as necessary.

The Division of Student Affairs annually publishes the student handbook, *The Golden Rule*, which contains more detailed information on student life. Copies may be obtained in the Student Affairs Suite, Room 282, Administration Building. Students are urged to take advantage of the many services and educational programs available through the Dean of Students Office and the Division.

## CONFIDENTIALITY OF STUDENT RECORDS

The procedures for the confidentiality of student records are based on state regulations and the federal **Family Educational Rights and Privacy Act of 1974**. Students who have questions concerning the confidentiality of records should contact the Office of the Dean of Students. Details of the University practices for confidentiality are presented in *The Golden Rule*.

## STUDENT GOVERNMENT

The purpose of the Student Government is to provide a system whereby students can effect progressive changes that bring about improvements in campus life. Student Government also endeavors to promote better communication and understanding among the UCF family and to provide certain services which impact student life. All enrolled students at UCF campuses, both graduate and undergraduate, are considered active members of Student Government who are allowed to voice their opinions through senate representatives. Funds available from the Activity and Service Fee paid by students are used to provide numerous activities and services to students to support their academic endeavors at UCF. SG is effective at ensuring that the voice of the student is recognized at the state and local levels.

The democratic process of SG is grounded in the fundamental structure of the U.S. Government. The executive, legislative, and judicial branches have representatives from each college at UCF. The structure of SG provides an atmosphere that reflects the democratic processes of the real world thus providing students an opportunity to become educated and experienced in practical situations.





Some of the services made available to students and funded by student activity and service fees are: legal services, computer lab, discount entertainment tickets, free local telephones, and vehicles for clubs' and organizations' use.

Students interested in working with SG may obtain information from the SG offices located in the Student Center.

### **STUDENT LEGAL SERVICES**

Student Legal Services provides students with advice and consultation including court representation in selected areas of law such as landlord/tenant, consumer, simple wills, and non-criminal traffic. Each eligible student (an undergraduate enrolled in six UCF hours or graduate enrolled in four UCF hours) is entitled to consult with the Program Attorney about any legal matter not excluded by program guidelines, free of charge. Students in need of legal services should contact Student Legal Services at (407) 823-2538, or Student Center Room 210. This service is by appointment only, and no legal advice is given over the phone.

### **CLASSROOM RESPONSIBILITY**

Students are responsible for maintaining a 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.

### **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 disciplinary action. Detailed conduct regulations and procedures are presented in *The Golden Rule*.

A person applying for admission to UCF who has been charged with a criminal offense may have circumstances of the case reviewed by the appropriate Student Affairs administrator to consider eligibility for admission.

## ORIENTATION

Orientation sessions are available to all new students at the University of Central Florida. Important information is provided regarding advisement, registration, housing, the transition to college life, and the administration of placement tests. Faculty, administrators and a specially trained group of students assist the sessions and are available to answer any questions. Information is mailed to each student accepted by the University regarding date, time and location of the orientation sessions.

## UNIVERSITY COUNSELING AND TESTING CENTER

The University Counseling and Testing Center (Recreational Services Building, Room 203) offers a professional staff of psychologists and counselors to assist students through educational, vocational, and career counseling; and personal, social, relationship, marriage, and family counseling.

The Center administers the following national testing programs: GRE, LSAT, GMAT, and MCAT. In addition, the Center administers the College Level Academic Skills Test (CLAST), and a variety of interest, aptitude, career, occupational, and personality assessments.

The Center presents special programs throughout the year, including training in relaxation and coping skills, self-hypnosis training, stress reduction training, and group psychotherapy. All Center services are free to UCF students.

## CAREER RESOURCE CENTER - CAREER PLANNING AND PLACEMENT

The Career Planning and Placement Office, located in Suite 124 of the Administration Building, is a career resource center for all University of Central Florida students and alumni. The Center provides individualized counseling about current and projected trends in the job market. Services also include: resume advice and critiquing, CHOICES—(computerized career guidance), career planning mini-classes, resume referrals at employers' request, on-campus interviews by employers, lists of full-time and part-time job vacancies, interviewing tips, and help in organizing a job search.

The Career Resource Center provides information about a broad cross section of employers.

Students just beginning studies at UCF are advised to begin preparing for a career. To make the most effective use of the Placement Service, seniors are urged to register with the office two semesters prior to graduation.

Further information may be obtained by visiting the Center or telephoning (407) 823-2361.

## HOUSING

1. Regularly enrolled single students paying registration fees for a minimum of nine semester hours may apply for assignment to University residential units. Currently, there are seven residence halls on the campus of the **University of Central Florida**. The total combined designed capacity of the seven halls is **867 spaces**. Because of the limited amount of space in University housing facilities, the University does not require any student to live on campus. **There are no on-campus accommodations for married students.**

Priority for assignment is given to incoming Freshmen who will occupy approximately 50 percent of the University's housing capacity, and current residents who will occupy most of the remaining space. The spaces set aside for incoming Freshmen are limited by the University's overall housing capacity. Therefore, those desiring to reside on campus should apply for admittance 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 receipt of the completed housing application in the Housing Office. Applicants should **CAREFULLY READ** the application before submitting it to the Housing Office along with the Letter of Acceptance to the University and the \$150.00 prepayment.



2. Housing contracts, 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.**
3. Applicants have the option of choosing one of several Meal Plans available at the University. Specific information concerning University Meal Plans is available from Marriott Corporation, P. O. Box 26029, 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 26000, UCF, Orlando, FL 32816-0222.

### **Off-Campus Housing**

Within two miles of the campus are numerous apartment and duplex communities, in addition to a privately-owned residence hall complex. Sidewalks, bike paths, and Tri-County bus service connect many of these facilities with the University. Students living off-campus are invited to participate in one of the University meal plans.

## **STUDENT HEALTH SERVICES**

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

The Student Health Center (SHC) is staffed by medical doctors, a certified nurse practitioner, physician's assistant, Registered Nurses, and a full complement of other medical support personnel. Full referral service to Orlando area specialists is established. Charges incurred outside the Student Health Center are the responsibility of the student. A variety of laboratory and x-ray tests are available at the Student Health Center. Testing for HIV (AIDS virus) is not done in our laboratory. Referral arrangements may be made for anonymous AIDS testing by contacting the Chief Nurse at the Student Health Center at (407) 823-2701, ext. 5275.

When the Student Health Center is not open, students can use the "Hot Line" phones at the front and back doors of the building to obtain help for urgent needs.

By Board of Regents regulation, each student must demonstrate Rubella and Rubeola immunity prior to registration. The Student Health Center cannot provide immunization services to meet this requirement. It is a pre-registration requirement and prospective students are not eligible for services at the SHC. A routine health history form is also completed prior to registration, and this information is used for background purposes in providing medical care services. Medical records are held in the strictest confidence.

Each health fee paying student is entitled to the benefits outlined in the SHC brochure; faculty and staff can only be seen on an emergency basis, and then for a fee (except Worker Compensation cases). Optional health and accident insurance may also be purchased by contacting the office of Student Affairs or Student Government (please note optional health and accident insurance is not part of the Student Health Center program and will provide a variety of coverages for health needs beyond the scope of Student Health Services).

Blood drives are held several times annually by the Central Florida Blood Bank. Students, faculty, and staff are eligible for credits from the blood bank upon demonstrating need.

## **STUDENT CENTER**

Student life at the University of Central Florida emanates from the Student Center. As the focal point for campus activities, the Student Center serves students, faculty, staff, patrons, alumni, and guests with its many programs, services, and facilities. The Student Center is funded through Activity and Service fees as allocated by Student Government.

Several student organizations flourish in the Student Center. The Campus Activities Board sponsors a wide variety of educational and entertaining programs for the UCF campus community. The Student Government Association provides for active leadership experiences through the Senate and committees working for student rights. The Orientation Team coordinates the orientation programs. Greek Council promotes membership in, and operation of, Fraternities and Sororities.



The Student Center provides other services for students as well. The Game Room offers billiards, ping pong and video games. Student Government Association operates a Macintosh computer lab. There are four food services facilities, an information desk, conference and meeting rooms, and the Student Center Auditorium. Reservations for university facilities can be made at the Student Center Information Desk. The Student Center Director is located in SC 198. For more information regarding the Student Center, call 823-2633.

## **STUDENT ORGANIZATIONS**

Student Organizations play a vital role in enhancing student life at the University of Central Florida. Academic, pre-professional, honorary, military, minority/international, religious, service, social, special interest, and sports are the ten categories of the over 150 organizations available. The Student Organizations Office publishes a *Student Organization Handbook* listing all of the organizations at UCF and their purposes.

For further information regarding clubs and organizations, call (407) 823-5107 or visit the Student Organizations Office, Student Center, Room 215.

## **RECREATIONAL SERVICES**

The Office of Recreational Services offers a wide variety of sports and recreational opportunities to the students of UCF and their immediate families and some opportunities to UCF faculty, staff, and the surrounding community.

These opportunities include intramural sports leagues and tournaments, organized recreation and fitness programs, unstructured open recreation, sports-related special events, screen printing and racquet stringing. Equipment may be checked out for use on and off campus.

The Office of Recreational Services is located next to the pool. The phone number is (407) 823-2408.

## **OFFICE OF STUDENT INFORMATION AND EVENING/WEEKEND STUDENT SERVICES**

The Office of Student Information and Evening/Weekend Student Services is a one-stop communications network and information center committed to gathering and disseminating information to students. The office is also responsible for the administrative supervision of student affairs functions for all University students taking evening and weekend classes and for the administration and programming of the 24-hour Student Information Buzzline, (407) 823-5479. The office phone number is: (407) 823-3111.

### **Information Booth & Evening Student Services**

9:00 a.m. to 9:00 p.m.

Monday through Thursday—  
second floor Administration Building,  
Education Building Lobby, and College of  
Business Information Booth

9:00 a.m. to 5:00 p.m.

Friday (same locations as above)

### **Weekend Student Services**

10:00 a.m. to 2:00 p.m.

Saturday at SG Kiosk (407) 823-2060

2:00 p.m. to 5:00 p.m.

Sunday at SG Kiosk (407) 823-2060

## **INTERNATIONAL STUDENT SERVICES**

The International Student Office provides services for all international students and resident aliens. Its central role is to assist International students and scholars attending UCF to adjust to the changing lifestyle in order to achieve their educational goals and gain a meaningful living experience in the United States. A wide range of special services is provided to the UCF international community, such as issuance of immigration forms I-20 A/B and IAP-66, assistance in locating off-campus apartments, counseling on personal, financial, academic, and cross-cultural communication matters, advisement in immigration and tax matters, promotion of social activities, and home visits in Central Florida. Further information may be obtained from the International Office, Administration Building Suite 225, or by calling (407) 823-2337.



## **HANDICAPPED STUDENT SERVICES**

Handicapped Student Services provides information and orientation to campus facilities and services, assistance with classroom accommodations, assistance with course registration, handicapped parking decals, counseling, and referral to campus and community services for students who are handicapped.

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 which require administrative or academic adjustments.

The University application for admission contains no question regarding disability. Therefore, students who have a disability or handicap which may require special assistance are requested to voluntarily contact the Office of Handicapped Student 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 who are handicapped.

A Telecommunication Device for the Deaf (TDD) is available for hearing-impaired or speech-impaired persons with TDD's to contact the University (phone (407) 823-2116 TDD calls ONLY).

Further information may be obtained from the Handicapped Student Services Office, Administration Building Suite 282, Phone (407) 823-2371.

## **CREATIVE SCHOOL FOR CHILDREN**

The Creative School for Children provides an educational program, including kindergarten, for children two through five years old. The daily program is planned and conducted by Florida-certified 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 a part of the yearly schedule. Experiences in observation and training in academic areas are also made available to University students. Opportunities for educational research are available to University faculty and graduate students.

The school conducts a Summer Day Camp for elementary school children during Summer "B" semester.

For further information, call the Creative School for Children, (407) 823-2726.

## **OFFICE OF VETERANS' AFFAIRS**

The Office of Veterans' Affairs (OVA) is a center for all veterans, including students who are using VA educational benefits to further their education. The office, located in the room 132 of the Student Center, has a professional staff augmented by student veterans to 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 process of applying for admission to UCF.

## **VETERANS' BENEFITS**

Students who are entitled to DVA educational benefits must make initial contact with the Office of Veterans' Affairs.

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. Students who are classified by the University as post-baccalaureate must meet the same semester hour requirements as undergraduates and will be paid at the undergraduate rate, regardless of the course level.

Students intending to enroll simultaneously 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 UCF Student Records.

Veterans and eligible dependents who wish to change their major, or pursue a double major or dual degree, or add a minor may also receive VA benefits but must first 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.

In order 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 a 2.0 or higher GPA is earned 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 may also draw VA benefits during the periods of eligibility while on cooperative education assignments. The recipient may choose to receive benefits at the "co-op rate" which is approximately 80 percent of the entitled monthly DVA benefit. 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.

**See also:**

**Office of Minority Student Services (OMSS)**  
**Student Academic Resource Center (SARC)**  
**Student Academic Support Services (SASS)**



# ADMISSION

## APPLICATION FOR ADMISSION

**HOW TO APPLY:** Applicants should complete the State University System application for admission, and include a 20-dollar non-refundable application fee. Applicants should also request official transcript(s) from each educational institution attended to be forwarded directly to the Admissions Office. Students are encouraged to apply several months in advance. Applications will be accepted up to one year prior to the start of the term desired. The application deadlines are March 15 for the Fall semester, October 15 for the Spring semester, and February 15 for the Summer term. Applications should be mailed to the Admissions Office, University of Central Florida, PO Box 160111, Orlando, FL 32816-0111.

The University encourages applications from qualified persons of both sexes from all cultural, racial, religious, and ethnic groups. The University does not discriminate on the basis of handicap in admission or access to its programs and activities.

A summary of the general requirements for admission or readmission to the University is as follows:

- A satisfactory academic record. Each applicant must furnish a complete chronological record of educational institutions previously attended. Official transcripts must be submitted in accordance with instructions on the application form.
  - Satisfactory scores on the Scholastic Aptitude Test (SAT) or the American College Test (ACT). Students whose native language is not English must also submit a Test of English as a Foreign Language (TOEFL) score. The required minimum TOEFL score is 550.
  - A satisfactory conduct record.

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

**Applicants should understand that minimum requirements are given and that admission to the University is a selective process. 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 Admissions Office and the Admissions and Standards Committee are responsible for the admission of undergraduate students under this policy. **See also: International Students, p.43, 44.**

## ADMISSIONS AND STANDARDS COMMITTEE

The Admissions and Standards Committee is composed of representatives from the University: representatives from the Faculty Senate, Minority Student Services, Student Affairs, Undergraduate Studies, the Student Body, and the Admissions Office. This committee normally meets on a regular schedule to review marginal cases and to consider the appeals of applicants. A letter of explanation to the Chair, Admissions and Standards Committee is recommended in establishing the basis for an appeal. Students have the option of appealing a decision in person before the Admissions and Standards Committee.

## REACTIVATION

A student who has submitted an application for admission to UCF but never attended may reactivate his original application by submitting a reactivation form within two years of the date of the original application. The deadline date for reactivation is the same as the deadline for new applications for admission. (This date appears in the academic calendar.)

## READMISSION

Students not in attendance for two consecutive academic semesters (exclusive of a summer term) must submit an application for readmission and such other information as may be required, including transcripts of courses attempted in the interim. The deadline for all readmission applications is the same as the deadline for new applications. (This date appears in the academic calendar.)

Readmission of a suspended (disqualified or excluded) student is never automatic. Students who have been disqualified or excluded **must** complete a readmission application.



The student is also encouraged to write a letter of appeal to the Chair of the Admissions and Standards Committee describing the particular circumstances since the time of disqualification or exclusion. Students may make a personal appearance before the committee if they desire.

Any former student readmitted whose all-college or UCF cumulative grade point average was less than 2.0 ("C") at the time of withdrawal will be readmitted on academic probation.

All applicants seeking readmission who have attempted coursework at another institution since last attending UCF will normally be required to be in good standing (2.0 grade point average with no allowance for grade forgiveness) and eligible to return to the last institution attended.

## **LIMITED ACCESS PROGRAMS**

A limited access program uses selective admission to limit program enrollment. Limited access status is justified when student demand exceeds available resources, such as faculty, instructional facilities, or equipment, or when specific accrediting requirements apply. Criteria for selective admissions include indicators of ability, and indicators of performance creativity or talent to complete required work within the program. Community college transfer students with Associate of Arts degrees from Florida community colleges are given equal consideration with UCF students. Admissions to such programs are governed by 6A-10.24(8), the Articulation Agreement, and by 6C-6.01, FAC, of the Board of Regents rules.

## **RECORDS**

### **Validity of Documents**

All supporting admissions documents must be received directly from the issuing institution or testing agency. If the University finds that an applicant has made a false or fraudulent statement or a deliberate omission on his application, residency affidavit, health report, or any accompanying document or statement, that applicant may be denied admission. Should the student be enrolled when such fraud is discovered, he may be immediately withdrawn (with no refund), further enrollment denied, and credit earned and any degree based upon such credit invalidated.

### **Medical History Report**

Each student accepted for admission shall, prior to registration, submit a Medical History Report provided by the University. *Documentation of appropriate immunization for measles and rubella is required. Proof of immunization must be provided.* This proof is a minimum requirement, and the University may require, in addition, such other evidence of examination as may be determined necessary. Where physician examinations or certificates are required, they must be signed by a doctor of medicine or a doctor of osteopathy.

Students 40 years of age or over are exempt from the Immunization Requirement but are required to submit the Medical History Report.

The University reserves the right to refuse registration to any student whose health record or report of medical examination indicates the existence of a condition which may be harmful to members of the University community.

The Medical History Report form will be mailed to the applicant with receipt for the Application for Admission. Applicants should return the Medical History report to the Registrar's/Records Office.

### **Deadline for Required Documents**

In some cases applicants may be allowed to register on a temporary basis without all records if eligibility for admission can be determined from available records or consultation with the student. All final supporting admissions documents, such as official transcripts and test scores should be received by the Admissions Office no later than 20 days after the first day of classes.

A Transfer Summary Report (TSR) will be prepared on a priority basis for students from whom final transcripts from each educational institution attended have been received by the 20th class day. Those students who have not submitted completed records by the 20th class day will be placed on administrative hold and will be changed to non-degree seeking status and will not be permitted to pre-register. Students with incomplete records will not be permitted to register for a future term until all transcripts and other required documentation



have been received. Students whose records are not satisfactory will be placed on Academic Probation and may, in certain instances, be removed from classes.

## FRESHMAN APPLICANTS

Any student who meets the minimum admission requirements and is interested in attending the University of Central Florida is urged to submit an application. The University will do everything possible to accept all qualified applicants who apply before the application 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 and pattern of courses completed, school recommendation, and personal record will be considered in the selection process. An application pool will be maintained when the number of applicants exceeds the number of qualified students to whom admission may be offered. Based on the number of cancellations received, selections will be made from the applicant pool approximately two months prior to the first day of classes.

The University reaffirms its Equal Educational Opportunity (EEO) commitments and seeks to increase the enrollment of minority students.

## High School Diploma

Beginning freshman students who are applying for admission to the University are normally required to have a diploma from an accredited high school. Foreign diplomas must meet the requirements specified in Florida Statutes, section 229.814 and must be evaluated by World Education Services, Inc. (WES). Students admitted under acceleration mechanisms are exempted from this requirement.

## Entrance Examination Scores

All applicants for admission must submit test scores from the Scholastic Aptitude Test (SAT) or from the American College Testing (ACT) program.

## High School Academic Units and Grade Point Average

All applicants must have earned a minimum number of high school academic units (year-long courses which are not remedial in nature) as shown in the table below to be considered for admission. The academic grade point average (GPA) will be computed only on these units. Grades in honors courses, International Baccalaureate, and College Entrance Examination Board (CEEB) Advanced Placement (AP) courses will be given additional weight in the computation of the academic grade point average.

The high school academic unit requirements are as follows:

ACADEMIC SUBJECT	UNITS REQUIRED
English (Three of which must have included substantial writing.)*	4
Mathematics (At or above the Algebra I level.)	3
Natural Science (Two of which must have included substantial laboratory requirements.)	3
Social Science (Included: History, Civics, Political Science, Economics, Sociology, Psychology, and Geography.)	3
Foreign Language (Both credits must be in the same language.)	2
Additional academic electives from the above five subject areas and courses recommended by the Florida Association of School Administrators, or other groups, and courses recommended by the Articulation Committee, and approved by the Department of Education.	4
TOTAL	19

## Eligible Applicants

Eligibility for admission is subject to satisfactory receipt and review of all items required in the admission process.

All applicants must meet the following State University System (SUS) minimum eligibility index standards:

If the High School GPA in academic core courses is:	One of the following composite admission test scores must equal or exceed:	
HSGPA	SAT or	ACT
2.0	1050	25
2.1	1020	24
2.2	990	23
2.3	960	22
2.4	930	21
2.5	900	21
2.6	890	21
2.7	880	20
2.8	870	20
2.9	860	20
3.0	**	**

For rolling admissions, in addition to the unit requirements, a minimum 3.0 high school grade point average and 1000 SAT or 24 ACT will normally be required by UCF.

\* **Four** units of English with substantial writing requirements will be required for admission to the University.

\*\* Academic eligibility for admission is determined by a 3.0 or better grade point average and submission of admissions test scores.

Students who have been enrolled in dual enrollment courses will be required to have a "C" average (2.0 GPA) for all dual enrollment course work attempted.

A student applying for admission who does not meet these requirements may bring to the University other important attributes or special talents and may be admitted if, in the judgement of the Admissions and Standards Committee, the student can be expected to do successful academic work. The University will provide an individual learning plan for each student admitted under this alternative.

Any student admitted without two years of one foreign language in high school or the equivalent (minimum 8 semester hours) of such instruction at the post-secondary level, must satisfy the admission requirement prior to graduation.

## TRANSFER APPLICANTS

Transfer applicants are encouraged to review the current edition of UCF's **TRANSFER STUDENT COUNSELING MANUAL** available in Florida community college counseling offices. The manual gives the recommended community college course requirements for all majors as well as other helpful information.

### Applicants with Fewer Than 60 Credit Hours

All college transfer applicants with fewer than 60 semester hours of acceptable credit must meet freshman high school unit entrance requirements with at least a 3.0 high school academic grade point average and a minimum SAT total score of 1000 or an ACT composite of 24, and have at least a B average (3.0 GPA) for all college-level academic courses attempted *and* be in good standing (minimum 2.0 grade point average) and eligible to return as a degree-seeking student to the last institution attended.

### Applicants with 60 or More Credit Hours

In addition to the requirements outlined below, all college transfer applicants with 60 or more semester hours of acceptable credit must have a grade point average of at least 2.0 on a 4.0 system for all college-level academic course work attempted *and* be in good standing (minimum 2.0 grade point average) and eligible to return as a degree-seeking student to the last institution attended.



## 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, who has completed the university parallel program and who has received the Associate of Arts degree which included 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 grade point average of at least 2.0 on a 4.0 system on all college-level academic courses attempted. (Only the final grade received in courses repeated by the student shall be used in computing the average.)
- One year of college instruction in a single foreign language. (This requirement applies to those students without the required two units of foreign language in high school.) Students who receive an Associate of Arts degree from a Florida public community college or university but have not met the foreign language requirement and do not qualify in one of the exempt groups defined below may only be admitted to the lower division of the University. Admission to the upper division will be granted when the foreign language requirement is satisfied.

Two groups of students are exempt from the foreign language portion of the admission requirement. These groups are:

- A. Students who received an Associate of Arts degree prior to September 1, 1989.
- B. Students who enrolled prior to August, 1989 in an Associate of Arts program at a Florida public community college and maintain continuous enrollment through the completion of the A.A. degree and transfer to UCF. Continuous enrollment is enrollment for a minimum of one term every 12-month period beginning with the student's first enrollment at a community college and continuing until the student enrolls in the University.

Any student admitted without two years of one foreign language in high school or the equivalent (minimum 8 semester hours) of such instruction at the post-secondary level, must satisfy the admission requirement prior to graduation.

Florida Community College Associate in 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 nine (9) 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. Adherence to university requirements and policies based on the catalog in effect at the time the student first entered a community college, provided the student maintains continuous enrollment.
4. Transfer of equivalent courses under the Statewide Course Numbering System.
5. Acceptance by the state universities of credit earned in accelerated programs (e.g., CLEP, AP, PEP, Dual enrollment, Early Admission and International Baccalaureate).
6. No additional General Education Core requirements.
7. Advanced knowledge of selection criteria for limited access programs.
8. Equal opportunity with native university students to enter limited access programs.

Should any guarantee be denied, students have the right of appeal through the University Articulation Officer, Office of Community College Relations.

## Applicants with an A.A. Degree from a Private or Out-of-State College

Any student admitted without two years of one foreign language in high school or the equivalent (minimum 8 semester hours) of such instruction at the post-secondary level, must satisfy the admission requirement prior to graduation.



In addition to meeting the requirements which apply to all transfer applicants, undergraduate transfer students who wish to be admitted to UCF as upper division students must have met all of the following requirements:

- A minimum of 60 semester hours of academic coursework.
- The English and mathematics requirements of the Gordon Rule.
- Passing scores on three of the four parts of the College Level Academic Skills Test.
- Eight to 10 semester hours 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.)

Applicants who have not met the above requirements may only seek admission into the lower division, and consequently must meet lower-division application requirements: a 3.0 GPA for the academic subjects completed in high school, the required high school units, a 1000 SAT or 24 ACT score, and a "B" average (3.0) for all college work attempted, in addition to meeting requirements which apply to all transfer applicants.

### **Applicants with an A.S. Degree**

Applicants who have received an Associate of Science degree in Engineering Technology from a Florida public college or university will be admitted only to the Bachelor of Science in Engineering Technology program.

All other A.S. degree applicants must meet the appropriate admission requirements defined in this section.

The A.S. degree does not certify the student as having completed General Education requirements.

In addition to meeting the requirements which apply to all transfer applicants, undergraduate transfer students who wish to be admitted to UCF as upper division students must have met all of the following requirements:

- A minimum of 60 semester hours of academic coursework.
- The English and mathematics requirements of the Gordon Rule.
- Passing scores on three of the four parts of the College Level Academic Skills Test.
- Eight to 10 semester hours 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.)

Applicants who have not met the above requirements may only seek admission into the lower division, and consequently must meet lower-division application requirements: a 3.0 GPA for the academic subjects completed in high school, the required high school units, a 1000 SAT or 24 ACT score, and a "B" average (3.0) for all college work attempted, in addition to meeting requirements which apply to all transfer applicants.

### **Applicants—More Than 60 Hours, Have Not Received an A.A. Degree from a Florida Public Institution**

In addition to meeting the requirements which apply to all transfer applicants, undergraduate transfer students who wish to be admitted to UCF as upper division students must have met all of the following requirements:

- A minimum of 60 semester hours of academic coursework.
- The English and mathematics requirements of the Gordon Rule.
- Passing scores on three of the four parts of the College Level Academic Skills Test.
- Eight to 10 semester hours 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.)

Applicants who have not met the above requirements may only seek admission into the lower division, and consequently must meet lower-division application requirements: a 3.0 GPA for the academic subjects completed in high school, the required high school units, a 1000 SAT or 24 ACT score, and a "B" average (3.0) for all college work attempted, in addition to meeting requirements which apply to all transfer applicants.

### **Applicants from Unaccredited Institutions**

Transfer applicants who otherwise meet all requirements, but who enter from a "regionally" unaccredited college or university will be considered on an individual basis. Admission may



be granted on a probationary and/or non degree-seeking basis, depending upon the applicant's record including high school units, entrance examination scores, and high school GPA. The "Transfer Credit" portion of this section provides information relating to transfer of credit for courses taken at unaccredited colleges or universities.

## **TRANSFER CREDIT**

All grades earned at a regionally accredited college or university in transfer courses that are normally a part of a baccalaureate degree program are shown on the student's permanent record. Credits earned in courses transferred with "D" grades will count toward the credits required for the baccalaureate degree; however, the department or college offering the major determines whether courses with "D" grades in the major may satisfy requirements in the major field.

No credit will be awarded for college-level General Education Development (GED) tests, for courses given without a grade, or for courses carrying grades but not credit hours.

## **Military Service School Courses**

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

Military credit is not accepted through transfer. 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 based on job descriptions, for Basic training, DANTES credit, CLEP scores below the 50th percentile, life experience, or coursework that is non-academic.

## **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 the previous community college or university. Transfer applicants with incomplete general education programs from state institutions will have their credits evaluated on a course-by-course basis.

## **Grade Forgiveness Transfer**

UCF honors grade forgiveness if it has been awarded as part of an A.A. degree from a Florida public community college or university, with the exception of courses taken previously at UCF.

## **Credits from Private and Out-of-State Institutions**

The credits of transfer applicants 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 which meet the requirements of the General Education Program and the Gordon Rule are determined through the process described in this catalog under "University Degree Requirements." Each College has different petition procedures, but 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 the accepted transfer courses are clearly understood by the student and the faculty advisor early in the student's program.

## **Credits from a Previous Baccalaureate Degree**

Graduates from other 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 catalog). 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.



## ACCREDITED INSTITUTIONS

For the purposes of this catalog "Accredited Institutions" means those institutions accredited by any of the following six regional associations:

- New England Association of Schools and Colleges
- Middle States Association of Colleges and Secondary Schools, 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
- Western Association of Schools and Colleges, Accrediting Commission for Senior Colleges and Universities and Accrediting Commission for Junior Colleges.

Foreign institutions are evaluated through World Education Services, Inc.

## COLLEGE PREPARATORY INSTRUCTION

State statutes require that new students be evaluated in terms of their potential to successfully complete required coursework at the University. Those students who are identified as likely to have difficulty in the areas of mathematics, writing, or reading may be required to take college preparatory courses prior to enrollment in college-level courses in those areas. Students must begin any required preparatory instruction during their first 12 semester hours and finish all such coursework within 3 semesters. New students will be notified of the need to take placement examinations during orientation, or of coursework that will be required. For further information, contact Student Academic Resource Center, PC-102, Phone (407) 823-5130.

## INTERNATIONAL STUDENTS

The University of Central Florida is authorized under Federal law to enroll non-immigrant alien students. Undergraduate applicants should refer to the "Admission" section of this catalog, and graduate applicants to the graduate catalog. In addition, the following is required for admission:

- International student applications and records required for admission must meet all applicant deadlines.
- Only those students with an Associate of Arts degree from a Florida public community college, or those who have completed their general education requirements (as defined in the Articulation Agreement) with a minimum 2.0 GPA, with no allowance for grade forgiveness, and at least three parts of the College Level Academics Skills Test (CLAST), or those students with superior academic records (i.e., upper 20th percentile or U.S. "B" average equivalent) will be considered for admission. Students who have attended any foreign institution(s) must provide an official course-by-course evaluation from World Education Services, Inc. (Evaluation applications may be obtained from the Admissions Office or by writing WES, P.O. Box 745, Old Chelsea Station, New York, NY 10011.)
- All applicants whose native language is not English must submit an official score report from the Test of English as a Foreign Language (TOEFL). Undergraduates who have not earned an Associate of Arts degree, or completed the general education requirements (as defined in the Articulation Agreement) from a Florida public community college and passed at least three parts of the CLAST must have a minimum TOEFL score of 550. Graduate applicants should consult the coordinator of their respective program to determine minimum TOEFL scores as well as any other requirements.
- All students who have not earned an A.A. degree from a Florida public institution must also submit an official SAT or ACT score and a high school transcript and WES evaluation, where applicable, in order to be considered for admission.
- Applicants must file a Confidential Financial Statement confirming availability of finances for each year of study.

The Admissions Office may require additional documents and/or transcripts before an admissions decision is made.



## INTERNATIONAL STUDENT MANDATORY HEALTH AND ACCIDENT INSURANCE

Each international student accepted for admission shall, prior to registration, submit proof of compliance with the University's mandatory health and accident insurance requirement (effective Fall semester 1990).

Minimum coverage required as follows:

Basic plan .....	US \$ 3,000.00
Supplemental .....	US \$30,000.00
Repatriation .....	US \$ 3,000.00
Evacuation .....	US \$ 3,000.00

Written proof of insurance must be provided to the International Student Services Office and must be valid for one calendar year from the date of first enrollment.

If insurance is issued by a foreign carrier or underwriter, a notarized statement must be provided, in English, insuring coverage is valid in the United States.

The University reserves the right to refuse registration to any international student who fails to comply with the insurance requirement or is unable to provide adequate proof of insurance.

## TEMPORARY STUDENTS

Any student who applies before the application deadline date and is permitted to register and attend classes without a complete admission file is granted a maximum of 4 weeks (first 20 class days) to furnish all required records. Records indicating ineligibility may result in cancellation of the student's registration.

## TRANSIENT STUDENTS

Students in good standing with a 2.0 overall academic average in any accredited college or university who wish to enroll for one term at UCF may be considered for admission as transient students. Such enrollment terminates at the end of one term and does not presuppose regular acceptance by any college or department of the University. A transient student must be in good standing with a minimum "C" (2.0) grade point average at the parent institution and at the last institution attended and must submit an official transcript to support the application for admission. Transient student applications must be received by the appropriate deadlines.

## AUDIT STUDENTS

To audit a class, a student must file a regular application and be accepted as a degree-seeking or non degree-seeking student, obtain an audit application at the records counter, and take it to the instructor for his/her signature of approval. Requests to audit a class will be processed the first working day following the add/drop period and will be approved on a space-available basis. No audit applications will be considered after the add/drop period. Finance and Accounting will bill students for audit classes separately from credit classes.

Students registering for credit during regular or late registration, or during add/drop may not change to audit status, but must remain in the course or withdraw through normal withdrawal procedures.

## NON DEGREE-SEEKING STUDENTS

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 necessarily provide a basis for 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. Students should consult the registration calendar in the Schedule of Classes or contact the Admissions Office for the appropriate registration time.

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. An applicant who has been denied admission or who has been disqualified or excluded may not register as a non degree-seeking student.
6. 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.

## SENIOR CITIZENS

Senior citizens who are Florida residents and who are 60 years old or over may enroll as audit students by completing a specially-marked non degree-seeking student form at the Admissions Office. A Florida Residency Affidavit will be required in order to establish Florida residency. A completed Student Health History must be filed prior to registration.

Registration is scheduled during the last hour of the Add-Drop period. It is necessary to complete the required form at the Admissions Office **prior** to each term for which senior citizens wish to enroll as audit students.



# TUITION AND FEES

## SCHEDULE OF FEES

A student's basic expenses at the University will be for registration fees, room and board, textbooks, other instructional supplies, 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. Information on residency is contained in the "Admission" section of this catalog.

All University fees must be paid at or before the end of the add/drop registration period. Failure to pay fees on or before due date will result in cancellation of the current registration.

The following schedule applies to all University of Central Florida students:

### General Fees and Costs (Subject to change without notice)

- A. Application fee. Must be paid by U.S. check or money order (required with all applications for admission to the University and not refundable) (Effective 8/1/92)..... \$20.00.
- B. Registration Fees per semester for campus, centers, and continuing education courses. Minimum registration of one credit hour (at the level the student is classified) must be charged for students registering for zero hours (co-op student on work assignment, applicant for graduation during the semester that student is not registered).

### Fall, Spring and Summer Semester 91-92 Rates

	Florida Resident	Non-Florida Resident
Undergraduate <sup>1</sup>	\$49.16 per hour	\$187.11 per hour
Graduate Level <sup>2</sup>	86.78 per hour	289.19 per hour

<sup>1</sup>Undergraduate courses are those courses numbered 0-4999

<sup>2</sup>Graduate courses are those courses numbered 5000-7999

- C. Room and Board (Based on accommodations and meal plan selected)
  - Dormitory Rooms (per semester) ..... \$810-\$1,080
  - Board (meal plans, per semester)..... \$548-\$984
  - Charge for late payment ..... \$25.00
- D. Books and supplies (estimated) per semester ..... \$230.00
- E. Late Registration and Late Payment Fees
  - A \$50 **late registration fee** will be assessed all students who register during the late registration period and pay fees by the deadline.
  - A \$50 **late payment fee** will be assessed all students who pay fees after the deadline.
  - **Both** a \$50 late registration fee and a \$50 late payment fee will be assessed all students who both register late and pay fees after the deadline.
  - **Both** a \$50 late registration fee and a \$50 late payment fee will be assessed all students who do not pay by the deadline, are cancelled and are then reinstated.

All payments accepted **after** drop cards are mailed, approximately the third week of classes, must be cash, cashier's check or money order.
- F. Vehicle Registration (required of everyone operating a motor-powered vehicle on campus) per calendar year for full-time, part-time students, and courtesy students from other institutions. Student's fee ..... \$40.00
- G. Student Health Fee—not refundable (per semester)
  - Assessed to all students except those enrolled exclusively in Continuing Education courses. This fee is also waived for senior citizens, for State employees under the fringe benefit plan, and for Intern Participation holders. University employees who use the Tuition Fee Waiver for class attendance may not elect to pay the Student Health Fee, regardless of the number of semester hours taken.
  - Fall & Spring Semesters ..... \$43.00
  - Summer Semester ..... \$32.00
- H. Certificate of Participation Holder ..... \$ 4.76/hr.
- I. I.D. Card replacement ..... \$ 5.00
- J. (Scientific Laboratory fees—fee per student on specific course(s) ..... \$2.00 - \$15.00



K. Return Check Charge

Service charge on all returned checks is \$15.00 or 5%, whichever is greater, and results in the loss of check cashing privileges.

## FLORIDA RESIDENCY FOR TUITION PURPOSES

To qualify as a Florida Resident for tuition purposes, students must:

Be a U.S. Citizen, Resident Alien, Parolee, Cuban National, Vietnamese Refugee, or other refugee or asylee so designated by the U.S. 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 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 IRS 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:

- 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).
- 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. A letter on company letterhead from an employer verifying permanent employment in Florida for the 12 consecutive months before classes begin.
  - G. Proof of membership in or affiliation with community or state organizations or significant connections to the State.
  - H. Proof of former domicile in Florida and maintenance of significant connections while absent.
  - I. Proof of reliance upon Florida sources of support.
  - J. Proof of admission to a licensed practicing profession in Florida.
  - K. Any other factors peculiar to the individual which tend to establish the necessary intent to make Florida a permanent home and that the individual is a bona fide Florida resident, including the age and general circumstances of the individual.
- No contrary evidence establishing residence elsewhere.
- Documentation of dependent/independent status (notarized copy of most recent IRS tax return).

OR

Become a legal resident and be married to a person who has been a legal resident for the required 12-month period,

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.

AND

File a notarized residence affidavit with the Admissions Office.

**The Admissions Office reserves the right to require additional documentation as seen necessary to accurately determine the resident status of any student.**

## **APPEALS**

Students who wish to appeal a late registration, late payment, or return check service charge fee may make their appeal to the Appeals Committee by initiating a student petition (Form 41-561). This form can be obtained from the Offices of Undergraduate Studies, Student Affairs, University Cashier, or the Student Accounts Section of Finance and Accounting. Students must submit their petitions to Student Accounts, Room 112, Administration Building, and *may* appear (not mandatory) before the committee which meets once each week.

## **CHECK CASHING**

The University Bookstore cashes personal checks not exceeding \$50.00. The University collects a \$15.00 service fee, or five percent (5%) of the check amount, whichever is greater, for personal checks, drafts, or orders which are returned as uncollectible. Future check-cashing privileges may be denied.

## **PAST-DUE ACCOUNTS**

All financial obligations to the University must be met if good standing is to be maintained. Failure to meet obligations can result in the withholding of grades and transcripts, 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 ON ACCOUNT**

The University cashier will accept personal checks for accounts due to the University.

## **REFUND OF FEES**

A refund of fees, or a reduction in fee liability for those students who have an authorized deferment, will be made upon presentation to the Student Accounts Office a Certification of Withdrawal issued by the Registrar. No refund or reduction in fee liability will be made under this policy except upon proper application.

1. A FULL REFUND will be made when:
  - A. Withdrawal is made before the end of the add/drop period. Summer refunds will not be made until after Term B Registration and add/drop, except by written application to Student Accounts, Room 112 Administration Building.
  - B. The course is cancelled by the University, or
  - C. A student is denied admission to an offered course for any reason.
2. A PARTIAL REFUND (25 percent of the total fees paid, less building and capital improvement fees) will be made when complete withdrawal from the University is made prior to the end of the fourth week of classes, during a 16 (or 17) - week semester or at the end of the first quarter of classes during a mini-semester or summer semester (rounded to the end of the week in which the first quarter occurs).
3. Refunds up to 100 percent of tuition and registration fees will be made upon withdrawal from one or more courses when exceptional circumstances exist, as determined by the University. Exceptional circumstances include, but are not limited to illness, death, involuntary call to military service, and administrative error created by the University.

Application for a full refund is made through the Office of Undergraduate Studies (AD 210) or the Office of Graduate Studies (AD 143).

## **TUITION FEE WAIVERS FOR STATE OF FLORIDA EMPLOYEES**

State employees who utilize a tuition fee waiver for eligible coursework for up to six credit hours without payment of the registration fees register as provided in the class schedule. Employees who register prior to the prescribed time and date have an invalid fee



waiver, and are liable for all applicable fees on courses enrolled. Employees register on a space-available basis. The tuition fee waiver can not be used for courses having increased costs (such as Thesis, Dissertation, and Directed Individual Study).

### **TUITION FEE WAIVERS FOR SENIOR CITIZENS**

Persons 60 years of age or older who meet Florida residency requirements may register for credit classes without payment of application fee, registration fee, and health fee. Senior citizens register only on a space-available basis, and only during the last hour of the add/drop registration period prescribed in the class schedule. Academic credit is not awarded for completed courses. The fee waiver can not be used for courses which have increased costs. These courses would include, but not be limited to Thesis, Dissertation, and Directed Individual Study.





# FINANCIAL AID

Financial Aid Office  
AD 120, Phone (407) 823-2827

OFFICE HOURS  
1:00 pm - 7:00 pm, Tues., Wed.  
9:00 am - 5:00 pm, Mon., Thurs., Fri.

The following Financial Aid policies and procedures are based upon federal, state and University regulations current for the 1992-93 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.\* In order to qualify for financial aid, students must be classified by the Admissions Office as degree-seeking. Some financial aid programs are available to part-time students; generally at least 6 credit hours enrollment per term is required.

The Financial Aid Office encourages all such students to apply for financial aid and to begin the process early. There are many grant, loan, and employment programs available as described below. Almost all programs require the determination of financial need.

Financial need is calculated by national processors who use 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). Students and/or their parents provide detailed financial information on a need analysis form sent to the processor. The results are forwarded to the UCF Financial Aid Office.

\**Eligible non-citizens* include I-151, I-551 and I-688 cardholders as well as some I-94 classifications.

## UCF APPLICATION DEADLINES

Pell Grants and 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.

To be considered for the full range of aid available for the academic year (beginning with the Fall Term), the need analysis report must be received from the national processor by **March 15** 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.**

## APPLICATION PROCEDURES

The following steps can take 4 to 6 weeks to complete. Students should apply well in advance of the March 15 deadline of the term for which aid is being requested. Students who wish to enter UCF in Spring Term must apply by the March 15 deadline of the preceding spring in order to be eligible for the maximum aid available.

### 1. Complete a Need Analysis.

UCF requests that students use the ACT Family Financial Statement\* and makes this form available after January 1. The form can also be obtained from high school guidance offices and other post-secondary institutions. The form will not be mailed from UCF.

It is crucial to follow the instruction booklet carefully. Errors, omissions, and/or submission without the filing fee, if required, can prevent students from receiving aid for which they would otherwise be eligible.

\*A CSS need analysis will also be accepted.

### 2. Submit a UCF Financial Aid Application.

This one-page form is available from the Financial Aid Office.



### 3. Request Financial Aid Transcripts

The Financial Aid office must receive an official Financial Aid Transcript from every post-secondary institution a student has attended, even if financial aid was not received. UCF has transcript forms that the student can mail to such schools, or students can write a letter which includes their name, SS#, school ID#, the name used while attending that school, and the student's signature. Request that the school include your SS# on the transcript they mail to UCF. Allow 2 to 4 weeks for processing.

### 4. Follow-through.

Students' applications are not complete until all documents requested have been received and reviewed by the Financial Aid Office. Read and save any information and documents received regarding financial aid. It is to the student's advantage to respond promptly to requests for additional information—especially if required for Verification (see below).

Students receive a Student Aid Report (SAR) in the mail from the processor to confirm receipt and information on their need analysis. Students must bring this SAR to the Financial Aid Office, even if found ineligible for a Pell Grant.

#### 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 SS# on all documents submitted to the Financial Aid Office.
- 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 Pell Grant and a Stafford Loan, even if it doesn't seem advantageous at the time. 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.

### VERIFICATION

Federal regulations require that students be able to verify the information submitted on the need analyses. Students may be asked to provide additional information or documentation such as copies of tax returns, verification of household size, and independent status. Financial aid cannot be disbursed until the verification process is complete.

### TRANSFER STUDENTS

The UCF Financial Aid Office must have on file a Financial Aid Transcript from every post-secondary school ever attended, whether or not financial aid was received. If determined eligible to receive aid at another institution for the academic year in question, please be aware that the only transferable programs are Pell Grants and Florida Student Assistance Grants.

**To apply for financial aid at UCF**, complete the application procedures listed above—with one exception. If a need analysis for the year in question has already been filed, the student need only request the processor forward a copy to UCF. (Refer to the ACT Status Report for instructions.) UCF's code number will have to be provided; it is 0735 for ACT or 5233 for CSS. Further information can be obtained from ACT at 1-319/337-1200 or from CSS at 1-609-951-1025.

**To transfer the remainder of a Pell Grant**, students should request the need analysis processor to send a duplicate set of their Student Aid Reports (SAR's) to them. These must be submitted to the UCF Financial Aid Office once the student has received them.

**To transfer the remainder of an FSAG**, send a copy of the state award letter and UCF's name and address to: State of Florida, Office of Student Financial Assistance, Department of Education, 1352 Florida Education Center, Tallahassee, FL 32399. Please do this before their stated deadline.

### INDEPENDENT STUDENT STATUS

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

- 24 years old
- an orphan or ward of the court





Clark Maxwell, Jr. Lifelong Learning Center UFC-Brevard Community College Campus

## **AUTOMATIC DEFERMENT**

1. The fee invoice (class schedule) reflects the dollar amount of deferment. 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 programs require different hours of enrollment for eligibility. Make sure that registered hours are equal or greater than required number of hours. Students must be enrolled at UCF for at least 6 UCF hours in order to be automatically deferred. Transient students may have their UCF tuition manually deferred by submitting a copy of their approved transient student form and class schedule from the transient institution to the UCF Financial Aid office, and signing a manual deferral authorization.

\*Student must be enrolled at least 12 hours to receive an SEOG, FSAG, and/or Lottery Grant award; 6 hours to receive a Pell, Stafford, SLS and/or Perkins award. (Note: A minimum of six hours **at UCF** is required for the Stafford/SLS loans.

2. Automatic Deferral means you are Fee-Liable. Simply not attending class will not cancel your debt to the University. You must go through the Add/Drop process or be held responsible for the payment of the original Fee assessment.

\*Student Loan Borrowers, please note! Regulations have changed the way Stafford and SLS loans are disbursed. This may affect when you will receive your money. Refer to the "Disbursement" section.

## **DISBURSEMENTS**

Financial aid disbursements are not available at the time of registration. No checks, including Stafford and Short Term Loan checks, will be disbursed before the first day 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 to pay for books and other expenses anticipated until about the 4th week of the term.

Award checks are disbursed for the award amount minus any debts owed the university, such as deferred tuition, fees, library and/or parking fines. In most cases checks will be

mailed to the student at the address on file. Perkins Loans will be disbursed at the Cashier's Office (open Mon. 9:00 am to 6:00 pm, Tues-Fri - 9:00 am to 3:30 pm); a picture ID is required. Stafford and SLS checks will be mailed to students, except if the student has failed to complete all requirements for disbursement eligibility. In those cases *only*, the student must pick up the check in the Cashier's Office upon completion of the requirement(s).

The verification process must be complete before financial aid funds will be released.

### Stafford and SLS Loans:

- 1. First-time borrowers at UCF:** Must attend an Entrance Interview before a check can be disbursed. Check with the Financial Aid Office for dates and times, and to schedule an appointment.
- 2. Two-term loans:** To receive the second half of a two-term loan, you must complete at least 6 hours at UCF during the first term. If you did not complete the required 6 hours or if you did not accept your first term loan disbursement, you cannot receive the second term disbursement either. You must cancel the original loan request and reapply for a new loan.
- 3. One-term loans:** Disbursement of a one-term loan will be divided into two payments. You must maintain eligibility throughout the term to be eligible for each disbursement. The second disbursement cannot be made until at least 1/2 of the term is over.
- Students who have not successfully completed their first year of undergraduate study (i.e., 1F) will not receive their checks until 30 days after classes have begun.
- 5. SLS borrowers:** Please contact the financial aid office concerning borrower restrictions.

## REFUND AND REPAYMENT POLICIES

Students should be aware that if they withdraw from the University after having received financial aid, they may be liable for repayment of a portion of that aid. Students who received Stafford Loans should also know that the Financial Aid Office is required to notify lenders of student withdrawals.

### Refunds

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

### Repayment

A portion of the financial aid disbursed to the student for non-instructional costs must be repaid by the student to the University. The amount of repayment due from the student will be based upon the schedule printed below.

A student who owes a financial aid repayment will not be allowed to receive further financial aid funds until the repayment is paid in full. In addition, academic and financial aid transcripts will be withheld until repayment is complete.

<b>Week of withdrawal</b>	<b>Fall and Spring Terms Amount of repayment</b>
1st week	<b>100% of total aid*</b> received
2nd or 3rd week	<b>Total aid*</b> - book allowance - tuition and fees x 75%
4th or 5th week	<b>Total aid*</b> - book allowance - tuition and fees x 50%
6th or 7th week	<b>Total aid*</b> - book allowance - tuition and fees x 25%
8th week or after	No repayment due

<b>Week of withdrawal</b>	<b>Summer A, B, and C Terms Amount of repayment</b>
1st week	<b>100% of total aid*</b> received
2nd week	<b>Total aid*</b> - book allowance - tuition and fees x 75%
3rd week	<b>Total aid*</b> - book allowance - tuition and fees x 50%
4th week or later	No repayment due

\*Total excludes monies received from the following programs: College Work Study, Stafford Loans, Supplemental Loans for Students, and Parent Loans for Students.



## REQUIREMENTS TO RECEIVE AID

- Financial aid funds cannot be disbursed until the student's financial aid file is complete and, if selected, the verification process has been completed. Verification must be completed 45 days prior to the end of the enrollment period in order to have time to process a Stafford Loan application.
- Students must not be in default on any educational loan or owe repayment on a grant at UCF or any other post-secondary institution.
- It is necessary for students who have received financial aid to maintain UCF's standards for Satisfactory Academic Progress, as defined below. Upper-level students must also pass the CLAST in order to receive state aid.
- Students must notify the Financial Aid Office of any changes in housing, marital, or financial status.
- **Application for financial aid must be made yearly.**

### Satisfactory Academic Progress

In order to remain eligible to receive financial aid, continuing students must meet the following standards for Satisfactory Academic Progress instituted by UCF in accordance with federal law.

## UNDERGRADUATE STANDARDS

**GPA:** Acceptable academic standing is reserved for those students who achieve and maintain a GPA of 2.0 or higher. (Please refer to the complete guidelines under Academic Policies and Procedures.)

**Hours Completed:** Students receiving financial aid must successfully complete the following number of credit hours per term. Incompletes, Withdrawals, Failures, and audits are not considered completed courses.

### HOURS ENROLLED

12 or more hours,  
9 - 11 hours  
6 - 8 hours

### HOURS REQUIRED

10 hours  
8 hours  
5 hours

**Time Limits:** Undergraduates must obtain their degree within 12 full-time semesters or the equivalent thereof for part-time students. Transfer students entering UCF with either an A.A. degree or 70 or more hours must complete their degree in 6 full-time semesters (or the equivalent thereof). A warning will be issued at the end of the 11th term or 5th term for the transfer student.

### Graduate Standards

**GPA:** A GPA of at least 3.0 is required for the courses specified in the graduate student's program.

**Hours Completed:** Full-time graduate students (9 or more hours) must complete at least 7 credit hours per semester; half-time students (6 or more hours) must complete at least 4 hours per semester. Incompletes, Failures, Withdrawals, and audits are not considered completed courses.

**Time Limits:** Graduate students receiving financial aid will be given 5 full-time semesters (or the equivalent thereof) to attain their Master's Degree. Doctoral candidates may have 5 additional full-time semesters to earn their Ph.D. Cases will be reviewed on an individual basis when additional time is needed.

### Cancellation

**Time Limit:** Students who fail to graduate within the required number of terms will be cancelled at the end of the term.

**Hours Completed:** Students who fail to complete the required number of hours for (previous Summer, Fall, and Spring) will be cancelled at the end of the Spring term of each academic year.

**GPA:** Junior and Senior level students with an overall GPA of less than 2.0 will be placed on Cancellation at the end of the term.

### Appeals

Probation or Cancellation will remain in effect unless overturned through the established appeals process. Students may file an appeal based upon extenuating circumstances. A



student's status is never overturned automatically; a Satisfactory Academic Progress Appeal must be initiated.

**Grades/Hours Completed:** The University has established academic standards for graduate students and a Grade Forgiveness policy for undergraduates, outlined in the Academic Policies and Procedures section of this catalog. Students who improve their grades or make up deficit hours under the Grade Forgiveness Policy must still file a Satisfactory Academic Progress Appeal with the Financial Aid Office.

**Mitigating Circumstances:** Appeals may also be filed on the basis of extenuating circumstances. These might include death in the student's immediate family, accidents, personal tragedy, or medical emergencies as defined by the University of Medical Withdrawals (see below). Such appeals will be reviewed by the Financial Aid Committee. Documentation relating to the mitigating circumstances is required to be submitted as a part of the student's appeal.

**Medical Withdrawals:** Once an appeal has been granted on the basis of a Medical Withdrawal, any subsequent requests based on Medical Withdrawal will be subject to review by the Financial Aid Committee.

**Cancellation:** Once the appeal process has been exhausted, cancellation from financial aid at UCF will remain in effect. Any student cancelled from financial aid who leaves UCF and later gains readmittance will not be eligible to receive financial aid unless a petition is filed and approved for Financial Aid Reinstatement.

**Approved Appeals:** If the appeal is approved and requires a probationary period, the student must meet satisfactory academic standards for hours and a 2.0 minimum term G.P.A. for the next term enrolled at UCF.

## FINANCIAL AID FOR GRADUATE STUDENTS

There are several sources of financial assistance available to UCF graduate students. **Perkins and Stafford loans** and the **College Work Study Program**, described above, require that financial need be established. **Supplemental Loans for Students (SLS)** are also available to graduate students. Though SLS loans are made by private lenders and do not require that financial need be established, applicants must have a current need analysis on file in our office.

**Out-of-state Tuition Waivers** are offered by each college and the Office of Minority Student Services to outstanding non-Florida residents. Some colleges give priority to graduate students in making award selections.

Eligibility and application guidelines for **Teaching or Research Assistantships** and **Graduate Assistant Positions** are established by the colleges or in some cases by departments, as are pay scales. To apply for an assistantship position, contact the Dean's Office in the Colleges of Business Administration and Education or the department's graduate coordinator in the Colleges of Arts and Sciences, Engineering, and Health and Professional Studies.

There are also scholarships available to graduate students. Please request a UCF Scholarship brochure.

### Student Rights and Responsibilities

- Students have the right to complete information about the financial aid programs available at UCF, our application procedures and deadlines, and the criteria used to determine a financial aid package.
- Students have the right to appeal decisions made by the financial aid office.
- Students have the right to equitable treatment of their financial aid 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 student 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 aid. Misrepresentation is a violation of the law.



# ACADEMIC POLICIES AND PROCEDURES

## 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 Dean of Students Office as outlined in *The Golden Rule*.

## STUDENT CLASSIFICATIONS

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

<b>Freshman:</b>	Through 29 semester hours.
<b>Sophomore:</b>	30-59 semester hours.
<b>Junior:</b>	60-89 semester hours and have fulfilled CLAST and Gordon Rule requirements.
<b>Senior:</b>	90 or more semester hours, prior to completion of baccalaureate requirements.
<b>Post-Baccalaureate:</b>	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.
<b>Graduate:</b>	Any student enrolled in graduate courses who has been admitted to a graduate program.

### Other student classifications:

<b>Auditor:</b>	A student registered for any credit course who is not seeking credit.
<b>Co-op Student:</b>	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 is either on assignment or attending class during each school semester. (See Veterans' Benefits for co-ops.)
<b>Special Student:</b>	A student of demonstrated academic ability who does not meet the regular requirements for admission (Early Admission, non degree-seeking, transient, and auditor).
<b>Temporary:</b>	A student who applied before the deadline and is permitted to register and attend class pending completion of the admission file.
<b>Transient:</b>	Students temporarily registered (for one semester) at the University of Central Florida with the approval of some other 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 Associate of Arts degree is to be awarded.

**Non Degree-Seeking:**  
**Provisional:**

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

## SEMESTER HOURS EXPLAINED

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 semester. During this shortened semester, two 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 term Class Schedule and made available prior to the beginning of the term.

## GRADING SYSTEM

The University uses an alphabetic system to identify student grades and other actions regarding student progress or class attendance. This system, with a grade point equivalent per semester hour, is as follows:



## Grades

A—Excellent.....	4 grade points
B—Good .....	3 grade points
C—Average.....	2 grade points
D—Passing.....	1 grade point
F—Failure.....	0 grade point

## Other Actions

W—Withdrawn .....	0 grade point
WP—Withdrawn Passing .....	0 grade point
WF—Withdrawn Failing .....	0 grade point
WM—Medical Withdrawal.....	0 grade point
I—Incomplete.....	0 grade point
X—Audit (no credit).....	0 grade point
S—Satisfactory (with credit)/Satisfactory Progress (Research, Thesis, or Dissertation).....	0 grade point
U—Unsatisfactory (no credit).....	0 grade point
T—(followed by grade) —Subsequently repeated (no credit) .....	0 grade point
R—(followed by grade) —Repeated course (grade forgiveness)	
N—No grade reported by professor .....	0 grade point

The grade point average (GPA) is the average number of grade points per semester hour attempted and is computed by dividing the total number of grade points assigned by the total number of semester hours attempted, less hours resulting from W, WP, and I grades. The grade point average for graduation requirement is 2.0 ("C") and will be computed on both the student's total academic program and the UCF program.

The designation of "N" will be temporarily assigned by the Records Office only in the case when a grade has not been submitted by the faculty by the "grades due" deadline. The designator will be replaced by the earned letter grade at the earliest opportunity in the semester which immediately follows. The "N" designator may not be assigned by faculty.

A request for grade change will be considered only during the term 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 or fall terms. Academic Actions do not change when an incomplete grade is completed nor when a course is repeated. A change in a grade must be approved by the dean of the college.

## 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 on the Change of Grade request form by the professor.

<b>Semester Average</b>	Grade Point Average on work attempted during any given semester.
<b>UCF Average</b>	Grade Point Average on all work attempted while in attendance at the University of Central Florida.
<b>Overall Average</b>	Grade Point Average on all work attempted since entering college, including work from all previously attended institutions.
<b>Academic Warning</b>	Some first-time-in-college applicants who do not meet University admission requirements may be admitted on Academic Warning. By obtaining a 2.0 GPA ("C" average) or better at the end of the first semester of attendance, Academic Warning will be removed. Earning less than a "C" average the first term will result in Academic Probation. A student may be on Academic Warning only once.
<b>Academic Probation</b>	Action taken when a Student's UCF cumulative or overall GPA drops below 2.0. A student may also be admitted on Academic Probation. Academic Probation will continue until the current term, UCF cumulative, and overall GPA reach 2.0 or better.



<b>Disqualified (First Suspension)</b>	A student on Academic Probation is disqualified upon failure to achieve a 2.0 GPA during the subsequent semester. A student who is disqualified may not enroll at the University for two semesters following disqualification. <i>Readmission after two semesters is not automatic.</i> 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 Director of Admissions. When the Director of Admissions can not make a favorable decision, cases will be referred to the Admissions and Standards Committee.
<b>Exclusion (Second Suspension)</b>	A student readmitted following disqualification who fails to achieve a 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.
<b>Readmission</b>	If a student has dropped out of the University <i>for any reason</i> , he or she must reapply on the appropriate form (see calendar for deadline).

First-time-in-college students may be admitted on Academic Warning (see above) or Academic Probation at the discretion of the Admissions Office or the Admissions and Standards Committee. Transfer students may be admitted on Academic Probation at the discretion of the 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.

## EARNING CREDIT WHILE DISQUALIFIED OR EXCLUDED

Students disqualified or excluded while a Freshman or Sophomore who subsequently receive an A.A. degree with a "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.

## INCOMPLETE GRADE

A grade of "I" (incomplete) is assigned by the instructor when a student is unable to complete a course due to extenuating circumstances, 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 incomplete grade by the deadline published in the Academic Calendar for the next term. If the incomplete is not changed by the established deadline, it may become a part of the student's permanent record with no credit given for the class, or the instructor may assign a grade of "F." An "I" can not be removed by Grade Forgiveness. Academic actions are not affected by the change of an "I."

**INSTRUCTORS PLEASE NOTE:** A grade is assigned using the Change of Grade Form. After the form is signed by the Dean of the College offering the course, the Dean sends it to the Registrar's Office.

## SCHEDULE CHANGES—ADD/DROP POLICY

**Add:** A student may add a course during the official add/drop period (the first three to five days of each term, as listed in the academic calendar). After the add/drop period, no course may be added.

**Drop:** A student may drop a course during the official add/drop period. The fact that the student was enrolled in a class so dropped will not appear on the permanent record. For withdrawal after the add/drop period, the Withdrawal Policy must be consulted.

## WITHDRAWAL POLICY

A student may withdraw from a class and receive the notation of "W" until the end of the eighth week of any regular semester or until the midpoint of any summer term by



completing a Course Withdrawal form available in the Office of Records and Registration, first floor of the Administration Building.

A student is never 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 the Office of Undergraduate Studies, Administration Building, Room 210. At the time of the request an Assistant Dean from the Office of Undergraduate Studies will ascertain from the instructor whether the student was passing or failing the course. If the student was passing, a "WP" will be recorded on the student's permanent record; if failing, a "WF" will be entered.

Students who seek a late withdrawal from class on medical grounds must apply for the withdrawal no later than that term following the one 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 physician with the appropriate medical information, using the forms available in the Office of Undergraduate Studies. The University physician evaluates this information and forwards a recommendation to Undergraduate Studies.

If a medical withdrawal is approved, a "WM" will be recorded for each course.

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 further defined in the paragraph titled "Grading 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.

## TRANSIENT ENROLLMENT AT OTHER INSTITUTIONS

A UCF degree-seeking student who wishes 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 respective college. Approval of courses for the General Education Program should be obtained from the Office of Undergraduate Studies. Credit earned without this transient approval may not be accepted. Students who are taking courses in transient status during the term in which they expect to graduate and who have been approved by the procedures indicated above, must provide an *official* transcript to the Graduation Area of the Records Office no later than two weeks after commencement. It is the student's responsibility to request this transcript from the transient institution. Students, whose transcripts not received by the deadline date, may not be approved for graduation that semester. Transient forms are available in the Records Office. Transient credit cannot be used to reduce the last 30 semester hour residency requirement for a baccalaureate degree or the last 20 semester hour residency requirement for an Associate of Arts degree. Transient credit cannot be considered as continuous enrollment.

## GRADE FORGIVENESS

### Policy

**Limits:** Grade forgiveness is limited to two courses.

- Grade forgiveness can be used only for courses taken at UCF. Grade forgiveness is not retroactive, and therefore may not be used for a course repeated before Fall 1981.
- UCF does not honor grade forgiveness granted at other institutions unless it is part of an Associate of Arts degree transferred to UCF from a Florida public community college or university. Because of the two-course limit, a student who has used grade forgiveness twice at another institution, and has included those courses in the transfer of an Associate of Arts degree may not use grade forgiveness again at UCF.
- A course taken at UCF may not be repeated at another institution for forgiveness by UCF.
- Grade forgiveness may not be used twice for the same course.
- Registration for grade forgiveness must be completed by the end of the add/drop period in the term in which the course is repeated.



**Exception:** If a student who repeated a course at UCF before Fall 1981 did not use the previous forgiveness policy and wishes to repeat the course again to take advantage of the forgiveness policy, he may do so. 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.

**General Policy:** 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 will not be computed in the grade point average except in a case in which the student withdraws from a course he is repeating or takes a grade of incomplete.

With prior approval of the dean of the college in which the course is offered, the student may substitute a course different from the original one if (1) the substitute course has been changed in prefix, number, hours, or title, but not in substance, or (2) the substitute course replaces a course no longer offered by UCF.

Grade forgiveness awarded for repeated courses will not retroactively alter any previous academic action. For example, a Probation or Disqualification status will not be removed from the records of the quarter or semester in which the student originally took the course. In addition, no academic records can be altered after a student graduates.

If it is determined that the student is ineligible for the forgiveness policy, neither a refund of fees nor automatic withdrawal from the course will be made.

## Procedure

Students who wish to exercise Grade Forgiveness must complete the following steps *before* registering to repeat a course:

1. Complete a "Grade Forgiveness Request Form" from the Office of Records and Registration for each course to be repeated.
2. If the course is a substitution for the original one (see above), secure the signature of the dean of the college in which the course is offered.
3. Turn the completed form in to the Office of Records and Registration *no later than the last day of add/drop*. No petitions will be accepted after the deadline.

Any questions about Grade Forgiveness should be directed to the Office of Undergraduate Studies, Extension 2691.

## ACADEMIC HONORS

### 1. 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 pass-fail coursework, and maintain a 4.0 GPA with no incomplete or "U" grades for the given term or who complete 15 semester hours during any 2 consecutive terms at UCF with no more than 11 hours in any one term, excluding pass-fail work, and maintain a 4.0 GPA for the 2 terms.

Hours utilized in the awarding of a President's Honor Roll Certificate may not be utilized in the determination of a subsequent certificate.

### 2. Dean's List

The Dean's List is compiled in recognition of scholastic honors for students who earn a 3.4 GPA with no grade less than "C" and no incomplete or "U" grades during a term. To be eligible for the Dean's list students must register for and complete a minimum of 12 semester hours in a Fall or Spring semester or 9 semester hours in a Summer semester.

### 3. 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:

- A. Attain an overall grade point average which is in the upper 10% of the range established by all students graduating in the same college during the previous two years
- B. Attain at least a 3.2 overall grade point average
- C. Honors awarded will be
  1. **Summa Cum Laude** for those students in the upper 2.5%
  2. **Magna Cum Laude** for those students in the upper 5%, but not in the upper 2.5%
  3. **Cum Laude** for those students in the upper 10%, but not in the upper 5%

Since records for the semester of graduation are incomplete at the time of graduation, that term is excluded in determining recognition in the commencement bulletin and at



graduation. Identification of these students at graduation is therefore presumptive of honors and not conclusive since final term grades may result in changes in relative rankings.

## **TIME-SHORTENED DEGREE 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 which may be used include the Early Admission Program, the College Level Examination Program (CLEP), the Advanced Placement Program (AP), the International Baccalaureate, and University Course Credit by Examination.

### **Early Admission Program**

Students who have demonstrated exceptional academic ability may be permitted to enroll as students at the University of Central Florida any time after completion of their junior year in high school. To be considered for Fall Semester Early Admission, applicants must have:

- Superior test scores (SAT 1100 or above, ACT 27 or above).
- "A"- "B" grades in high school.
- A recommendation from the student's high school counselor.
- A letter of permission from parents or guardian.
- A campus interview to ascertain the student's maturity and ability to adjust to collegiate responsibilities.

Qualified students may enroll dually on a part-time basis, taking one or two courses while completing their high school programs. An interview and letters of recommendation from parents and principal are required in addition to a superior record.

Students desiring admission prior to high school graduation should contact the Admissions Office for an appointment.

### **College Level Examination Program (CLEP)**

The University of Central Florida grants University credit for examinations taken under the CLEP program provided the score obtained is at the 50th percentile or above on the National Sophomore CLEP norms. The University of Central Florida will award up to 45 semester hours of University credit under the CLEP program.

CLEP credit may be earned by the following methods--CLEP general examinations, CLEP general examination subtests, and CLEP subject examinations. A student may earn a maximum of 45 semester hours of credit through this program. Successful completion of CLEP examinations means performance at or above the 50th percentile.

Awarding of CLEP credit is subject to the conditions listed below.

1. Credit may be awarded in the CLEP general examination area, 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.
2. 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 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 is also provided which contains information about CLEP subject examinations. The table delineates CLEP subject examinations which are available, qualifying scores for each examination, the UCF course for which each examination can substitute, and semester hours which will be awarded.

It is important to note that a maximum of 45 semester hours in any combination of extension, correspondence, CLEP, Armed Forces Service School Credits, and University Credit by Examination will be accepted by the University for application toward an undergraduate degree. In addition, CLEP credit can not be used to reduce a grade point deficiency. For example, CLEP can not be substituted for a grade awarded for a previously completed course. CLEP may not be used to fulfill the senior institution requirement.

### CLEP GENERAL EXAMINATIONS

Qualifying scores on CLEP General Examinations earn only general (lower division) elective credit.

CLEP General Examination	Qualifying Score	Semester Hours
English Composition with Essay*	500	6
Humanities	489	6
Mathematics	497	6
Natural Science		
Biological Science	50	3
Physical Science	49	3
Social Science	488	6

\*The General Examination in English Composition with Essay is not given in July or August.

### CLEP SUBJECT EXAMINATIONS

CLEP Subject Exam	Semester Hours	Qualifying Score	UCF Courses
Afro-American History	3	50	None
American Government	3	50	POS 2041
American History I***	3	49	AMH 2010
American History II***	3	49	AMH 2020
American Literature***	6	50	AML 3031 and AML 3051
Analysis and Interp. Lit.***	6	51	ENC 1101 and LIT 3000
Calculus w/Elem. Functions	4	49	MAC 3311
Calculus w/Anal. Geometry	3	49	MAC 3253
Clinical Chemistry**	6.7	50	MLS 4630
College Algebra	3	48	MAC 1104
College Algebra & Trigonometry (Duplicate CLEP Exam - Subj: Trig)	3	50	MAC 1104 or MAC 1114
College Comp. w/Essay*** (Duplicate CLEP Exam - Subj: Freshman Comp. w/Essay)	6	50	ENC 1101 and ENC 1102
Computer and Data Processing	3	51	CGS 1060
Educational Psychology	3	49	None
English Literature***	6	49	ENL 3031 or ENL 3051
Freshman English w/Essay***	6	51	ENC 1101 and ENC 1102
General Biology****	6	49	BSC 1020
General Chemistry****	6	50	CHM 1020 and 1032 or CHS 1440
General Psychology	3	50	PSY 2013
Hematology**	6.7	51	MLS 3305
Human Growth and Development	3	51	None
Immunohematology**	6.7	50	MLS 4550
Introduction to Accounting	3	50	ACG 2001
Introduction to Business Law	6	51	None
Introduction to Management	3	49	None
Introduction to Macroeconomics	3	50	ECO 2013
Introduction to Microeconomics	3	50	ECO 2023



Introduction to Marketing	3	50	MAR 3023
Introduction to Sociology	6	50	SYG 2000
Languages: French	6/9/12	44/49/56	Corresponding
German	6/9/12	43/52/55	1120 and 1121,
Spanish	6/9/12	45/48/55	2200* and 2201*,
			2230 and 2231*
			language courses
Microbiology (Clinical)**	6	49	MLS 4405
Programming - Fortran IV	3	48	COP 1200
(Duplicate CLEP Exam -			
Subj: Comp. and Data Proc.)			
Trigonometry	3	54	MAC 1114
(Duplicate CLEP Exam -			
Subj: College Alg & Trig)			
Western Civilization I***	3	49	EUH 2000
Western Civilization II***	3	48	EUH 2001

- \* Those students receiving six or nine hours are allowed to complete these courses.  
 \*\* Each student must also satisfactorily complete a lab and an essay exam. Both exams will be given by the College of Health.  
 \*\*\* Satisfactory completion of these exams does not reduce the 24,000 word requirement of the Gordon Rule.  
 \*\*\*\*Does not satisfy General Education Program science laboratory requirement.

### Advanced Placement Program (AP)

Students who have participated in the Advanced Placement Program in high school and 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

Examination	Passing Scores	Semester Hours Awarded	UCF Courses
Biology*	3-4	3	BSC 1020
	5	6	BSC 1020 + 3 hours general elective
Chemistry*	3	3	CHM 2045
	4-5	7	CHM 2045 and 2046
Computer Sci A	3-4	3	General Elective
Computer Sci A	5	3	COP 2500
Computer Sci AB	3-5	3	COP 2500
Language & Composition**	3-5	3	ENC 1101
Literature**** & Composition**	3-5	3	ENC 1101
Microeconomics	3-5	3	ECO 2023
Macroeconomics	3-5	3	ECO 2013
French	3-4	3	FRE 1120
	5	6	FRE 1121 + 3 hours general elective
German	3-4	3	GER 1120
	5	6	GER 1120 + 3 hours general elective
History (AM)	3-4	3	AMH 2010
	5	6	AMH 2010 + 3 hours general elective
History (EUR)	3-4	3	EUH 2001
	5	6	EUH 2001 + 3 hours general elective

Psychology	3-5	3	Psy 2013
Latin	3-4 5	3 6	LAT 1120 LAT 1120 + 3 hours general elective
Math—Cal AB	3-5	4	MAC 3311
Math—Cal BC	3-5	4	MAC 3312
Am. Gov.	3-5	3	POS 2041
Comp. Gov.	3-5	3	CPO 3103
Music—List & Lit	3-4 5	3 6	MUL 2010 MUL 2010 + 3 hours general elective
Music Theory	3-4 5	2 5	MUT 2111 MUT 2111 + 3 hours general elective
Physics B*	3 4 5	3 3 6	PSC 1512 PHY 3053 PHY 3053 and PHY 3054
Physics C* (Mechanics)	3 4 or 5	3 3	PHY 3053 PHY 3048
Physics C* (Electricity and Magnetism)	3 4 or 5	3 3	PHY 3054 PHY 3049
Spanish	3-4 5	3 6	SPN 1120 SPN 1120 + 3 hours general elective
Classics	3-4 5	3 6	HUM 2211 HUM 2211 + 3 hours general elective
History of Art	3-4 5	3 6	ARH 2050 ARH 2050 + 3 hours general elective
Studio Art	3-5	3-6	to be assigned by Art Department

\* DOES NOT SATISFY GENERAL EDUCATION PROGRAM SCIENCE LABORATORY REQUIREMENT

\*\* MAY BE USED TO SATISFY THREE HOURS OF GORDON RULE COMPOSITION REQUIREMENT

\*\*\* DOES NOT SATISFY GORDON RULE COMPOSITION REQUIREMENT

\*\*\*\*STUDENTS WHO RECEIVE CREDIT FOR BOTH OF THE AP ENGLISH EXAMS WILL RECEIVE CREDIT FOR ENC 1101 AND SUBSTITUTE A JUNIOR-LEVEL WRITING CLASS FOR ENC 1102

### International Baccalaureate Program

Students who have participated in the International Baccalaureate program in high school may receive a maximum of thirty hours of credit for scores of 4 or higher in the subsidiary and higher level program areas.

Subject Area	Qualifying Score	Credit Awarded	UCF Course
Applied Chemistry			
Higher Level	4,5,6,7	3	CHM 1032
Subsidiary Level	4,5,6,7	3	CHM 1032
Art/Design			
Higher Level	4,5,6,7	3	*



Biology				
Higher Level	4,5,6,7	3	*	
Chemistry				
Higher Level	4,5,6,7	3		CHM 1032
Subsidiary Level	4,5,6,7	3		CHM 1032
Computer Science				
Higher Level	4,5,6,7	3		No direct equivalent, will satisfy GEP computer science requirement
Economics				
Higher Level	4,5,6,7	3		No direct equivalent
English				
Higher Level	4,5,6,7	3	*	
Experimental Psychology				
Higher Level	4,5,6,7	3	*	
Foreign Languages				
Higher Level	4,5,6,7	3		
French, Spanish, German		3		FRE 3420, SPN 3420 GRE 3420
Others		3		No direct equivalent
Subsidiary Level	4,5,6,7	3		
French, Spanish		3		FRW 3100, SPW 3100
Others		3		No direct equivalent
Geography				
Higher Level	4,5,6,7	3		GEO 1200 & GEO 3370
Subsidiary Level	4,5,6,7	3		GEO 3370
History				
Higher Level	4,5,6,7	3		No direct equivalent
Mathematics with Further Studies				
Higher Level	4,5,6,7	3	*	
Mathematics				
Higher Level	4,5,6,7	3		MAC 3311
Subsidiary Level	4,5,6,7	3		MAC 1104
Music				
Higher Level	4,5,6,7	3	*	
Organizational Studies				
Higher Level	4,5,6,7	3		No direct equivalent
Philosophy				
Higher Level	4,5,6,7	3		PHI 2010
Subsidiary Level	4,5,6,7			
Physics				
Higher Level	4,5,6,7	8		PHY 3053C & PHY 3054C
Subsidiary Level	4,5,6,7	8		PHY 3053C & PHY 3054C
Psychology				
Higher Level	4,5,6,7	3		PSY 2013
Social Anthropology				
Higher Level	4	3		ANT 2003
Higher Level	5,6,7	3		ANT 3422
Subsidiary Level	4	3		ANT 2003
Subsidiary Level	5,6,7	3		ANT 3410

\* - to be determined by department review

## Credit by Examination

Regularly enrolled\* undergraduate students at the University of Central Florida may obtain credit for specific university courses through departmental examinations. Those who feel they have acquired the knowledge and/or skills of a specific University course should consult their 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 attempted in a course in which the student has previously enrolled and may not be used to reduce the last 30 semester hours residency requirement. *Credit by examination will not be given for any course lower in content than courses in the same discipline (i.e., with the same rubric) 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.

\*Excludes transient and non degree-seeking students.

## TRANSCRIPT REQUESTS

Transcripts of a student's UCF academic record may be requested by the student through the Office of the Registrar. **A student's academic record can be released only upon written authorization by the student.** Include in the request the full name and social security number. Indicate names and complete addresses to whom transcripts are to be sent. If grades or degree statements for the current term are needed, indicate that the transcript request is to be held until the final semester reports are posted. The first three transcripts are provided at no cost to the student. For additional transcripts, there is a charge of \$2.00 each. The check or money order should be made payable to: UCF. Cash payments can be accepted only by the Cashier's Office (Monday 9-6:30; Tues-Fri 9-3:30). Students requesting transcripts may do so in person or by writing to: Transcript Request, Office of the Registrar, University of Central Florida, PO Box 160114, Orlando, FL 32816-0114.



# UNDERGRADUATE DEGREE REQUIREMENTS

## REQUIREMENTS FOR GRADUATION

Students must fulfill both the requirements for a major and University graduation requirements to receive a degree from the University of Central Florida.

### To earn a bachelor's degree from UCF, students must:

- Fulfill the requirements for the chosen major
- Earn a minimum of 120 unduplicated semester credit hours with at least a "C" average (2.0 GPA, both UCF and overall) for coursework attempted. Some majors require more than 120 hours.
- Earn a minimum of 60 of these 120 semester credit hours from a senior institution (an institution which offers baccalaureate degrees).
- Earn at least 48 of these 120 semester credit hours in 3000-level courses or above.
- 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 30 semester hours in residence at UCF.
- 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 requirements defined elsewhere in this section.
- Fulfill the Gordon Rule requirements defined elsewhere in this section.
- Fulfill the Foreign Language Proficiency requirement defined elsewhere in this section.
- Fulfill the CLAST requirement defined elsewhere in this section.
- Earn a minimum of nine semester hours during summer terms, if applicable.
- Complete an Intent to Graduate form by the end of the first full week of classes of the term of graduation.

## CHOICE OF CATALOG AND CONTINUOUS ENROLLMENT

A student must graduate under the provisions of any UCF catalog in effect since the student began continuous enrollment at UCF. However, students transferring from Florida public community colleges or state universities may use the UCF catalog in effect at the time they 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 (i.e., Fall and Spring). Continuous enrollment is automatically broken when a student moves from one transfer institution to another following academic disqualification or exclusion.**

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 university office may designate a reasonable substitute.

If students should wish to change their catalog for graduation, they should first discuss with their advisors how such a change would affect university, college, and major requirements. If students should decide to request a change, they should fill out a catalog change form in the Student Academic Support Services (SASS) Office, Phillips Hall, Room 202.

## GENERAL EDUCATION PROGRAM

The General Education Program (GEP) is designed to provide insight into the major areas of knowledge at the University. The GEP further supplies the background for making a more knowledgeable selection of major and elective courses.

Courses which fulfill the General Education requirements are specified, but in some cases an advanced course in the same discipline may be substituted for GEP requirements with the approval of the Office of Undergraduate Studies. Students should consult both with an advisor and with the Office of Undergraduate Studies before substituting any course.

Undergraduate students who have not completed requirements for the Associate of Arts



degree and who wish to transfer to another Florida public university can have their transcripts stamped GENERAL EDUCATION REQUIREMENTS MET 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.

### GENERAL EDUCATION PROGRAM COURSES

(40 semester hours required)

A. Communication Foundations .....	9
1. *ENC 1101 English Composition I	3(3,0)
2. *ENC 1102 English Composition II PR: ENC 1101	3(3,0)
3. SPC 1600 Fundamentals of Oral Communication	3(3,0)
B. Cultural and Historical Foundations .....	9
1. <i>Take one of the following two-semester sequences:</i> .....	6
*EUH 2000 Western Civilization I	3(3,0)
*EUH 2001 Western Civilization II PR: EUH 2000	3(3,0)
or	
*HUM 2211 Western Humanities I	3(3,0)
*HUM 2230 Western Humanities II PR: HUM 2221	3(3,0)
or	
*AMH 2010 U.S. History: 1492-1877	3(3,0)
*AMH 2020 U.S. History: 1877-present PR: AMH 2010	3(3,0)
2. <i>Take one course from the following:</i> .....	3
ARH 2050 The History of Art I	3(3,0)
ARH 2051 The History of Art II	3(3,0)
MUL 2010 Enjoyment of Music	3(2,1)
THE 1020 Theatre Survey	3(2,1)
THE 2071 Cinema Survey	3(2,2)
REL 2300 World Religions	3(3,0)
PHI 2010 Introduction to Philosophy	3(3,0)
*LIT 2110 World Literature I PR: ENC 1102	3(3,0)
*LIT 2120 World Literature II PR: ENC 1102	3(3,0)



C. Mathematical Foundations .....	6
<i>Take one course from each group. Some majors require a specific course or a higher level course in this area. Consult your advisor.</i>	
1. **MAC 1104 College Algebra	3(3,0)
**MGF 1203 Finite Mathematics	3(3,0)
2. **CGS 1060C Introduction to Computer Science	3(3,0)
**STA 2014 Principles of Statistics	3(3,0)
D. Social Foundations .....	9
1. ECO 2013 Principles of Economics I	3(3,0)
2. POS 2041 American National Government	3(3,0)
3. <i>Choose one:</i>	
PSY 2013 General Psychology	3(3,0)
SYG 2000 General Sociology	3(3,0)
ANT 2003 General Anthropology	3(3,0)
E. Science Foundations.....	7
<i>Take one course from each group; one of which must include a laboratory. Some majors require a specific course or a higher level course in this area. Consult your advisor.</i>	
1. PSC 1512 Physical Science PR: MAC 1104 or MGF 1203	3(3,0)
PHY 3053C College Physics PR: MAC 1104 or MGF 1203	4(3,3)
CHM 1020 Concepts in Chemistry PR: MAC 1104 or MGF 1203	3(3,0)
2. BSC 1020C Biological Principles	4(3,2)
BSC 1030C Biology and Environment	4(3,2)
GLY 1030 Geology & Its Applications	3(3,0)
GEO 1200 Physical Geography	3(3,0)
BOT 1000C Plant Science	4(3,2)
ANT 3511 Human Species	3(3,0)
*A grade of "C" or better in this course satisfies three hours of the Gordon Rule requirement in English composition. In addition, any upper-division course in composition or literature taught by the UCF English Department and selected upper-division courses taught by the UCF History Department also satisfy three hours of the English composition requirement, if the course is completed with a grade of "C" or better. A list appears in "The Golden Rule" this section.	
**A grade of "C" or better satisfies three hours of the Gordon Rule requirement in mathematics. In addition, a grade of "C" 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**

The Student Academic Support System (SASS) Office routinely coordinates the evaluation of transfer courses for the University's General Education Program and Foreign Language Proficiency requirements. When the transfer coursework is entered into the UCF computer system (usually during the first semester at UCF), the SASS Office 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 by the SASS Office is entered into a computerized Degree Audit System and is then available to the colleges and departments through the University's computer network.

Appeals of decision made by the SASS Office should be directed to Dr. David Dees, Assistant Dean, Undergraduate Studies. Further appeal of decisions made by Dr. Dees should be directed to the University Appeals Committee, Administration 210.

Substitution requests for college or major requirements are processed within those administrative offices.

## Alternative Courses - General Education Program

Courses which may be taken in substitution for the stated GEP requirements are given below.

### GEP REQUIREMENTS

MAC 1104 (College Algebra)  
ECO 2013 (Macro Economics)  
PHY 3053C (Physics)  
CHM 1020 (Chemistry)  
BSC 1020C or BSC 1030C (Biology)  
GEO 1200 (Geography)  
CGS 1060C (Intro to Computer)  
STA 2014 (Statistics)

### ACCEPTABLE SUBSTITUTIONS

MAC 1114, MAC 3233, MAC 3253,  
MAC 3254, MAC 3311, MAC 3312,  
MAC 3313  
Any higher level ECO course which has  
ECO 2013 as a prerequisite.  
PHY 3048, PHY 3049, PHY 3054C,  
PHY 3014C, PHY 5015,  
CHM 2045, CHM 1032, CHS 1440  
BSC 2010C  
GEO 3370  
CGS 3000, CGS 3422, COP 1200, COT 3100  
STA 3023, STA 3032

## FOREIGN LANGUAGE PROFICIENCY REQUIREMENT

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 which 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 are exempt from this requirement.

**For specific guidelines concerning proper placement in foreign language classes, please see section: Dept. of Foreign Languages and Literatures, under the heading, *Placement and Proficiency.***

1. This requirement is for proficiency and not a requirement for a particular number of hours of coursework. For example, successful completion of only SPN 1121 (Elementary Spanish Language and Civilization II) would satisfy the B.S. requirement. Appropriate scores on Advanced Placement and CLEP examinations will also satisfy the requirement.
2. This is a University-wide requirement for all majors and replaces the previous Enhancement Option section of the General Education Program.
3. The Testing Administrator of the Office of Counseling and Testing will offer the Foreign Language Proficiency Examination periodically in each semester. Students must register in advance with that office to take the examination (RS 203).
4. The foreign language proficiency requirement does not apply to students seeking a second baccalaureate degree.
5. A student who is required to furnish a passing TOEFL (Test of English as a Foreign Language) score for admission to the university and does so is considered to have satisfied the requirements.

## 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 4 courses (12 semester hours) and to complete 2 courses (6 semester hours) of mathematics at the level of college algebra or higher. Each course must be completed with a grade of "C" or better. CLEP and other forms of credit by examination may not be used to satisfy the composition portion of the Gordon Rule Requirement.

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



#### Gordon Rule Requirement:

1. 6 hours of math at the level of college algebra or higher

#### GEP Courses Which Satisfy:

- (1) college algebra or finite math
- (2) statistics or computer science

Any 3000-level or above course in math, statistics, or computer science may also be used toward fulfillment of the math portion of the Gordon Rule Requirement.

2. 12 hours of coursework in which the student must complete 24,000 words of composition
- (1) 6 hours of English Composition
  - (2) 6-hour sequence of Western Humanities, 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.

### **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. All students seeking an Associate of Arts or Baccalaureate degree from UCF are required to pass CLAST. CLAST must be taken no later than the term in which a student enrolls for the 55th credit hour. Transfer students with more than 55 credit hours who have not had the opportunity to take CLAST may be admitted, but must take CLAST during their first term at UCF. Students with 60 or more hours of credit must pass 3 of the 4 CLAST subsections to be permitted to enroll in additional upper division courses.

CLAST is offered only once per term. Students must register in advance at the Office of the Registrar, AD, 1st Floor. Information regarding CLAST may be obtained from the Student Academic Resource Center, PC-102, Phone (407) 823-5130.

### **CORRESPONDENCE COURSES**

The Department of Independent Study by Correspondence, Division of Continuing Education, University of Florida, Gainesville, FL 32611, administers all correspondence instruction for the State University System. Phone: (904) 392-1711.

### **SUMMER ATTENDANCE REQUIREMENT**

A student entering the State University System with less than 60 semester hours of credit is required to enroll in a minimum of 9 hours of credit in the summer at a state university. Courses taken at the University during the summer for which the student receives a "W" or "F" may be counted toward this requirement. Petitions for exemption are sent to Dr. David Dees in Undergraduate Studies on the form supplied by the Office of Undergraduate Studies (AD 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 College Level Academic Skills Test (CLAST).
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.)

### **STEPS IN THE GRADUATION PROCESS**

A student should apply to the Registrar for graduation before registering for his final semester of attendance and not later than the end of the first full week of classes of the term of graduation.

Upon completion of 100 undergraduate semester hours of coursework, the student is notified to report to his Academic Advisor.

The following steps are required of students who are near or in their last semester before graduation:

1. The student must complete an "Intent to Graduate" form, available in the Registrar's Office, not later than the end of the first full week of the term of graduation.
2. The candidate for graduation must initiate a checksheet for graduation with his/her advisor. At the end of the semester the checksheet will be completed and forwarded for approval to the Dean of the college in which the student is enrolled. If approved, the Dean will forward the checksheet through appropriate channels to the Registrar's Office for inclusion in the student's permanent University record.

Successful completion of the degree requirements stated in the catalog under which the student wishes to graduate shall constitute a recommendation of the respective college faculty that the degree be awarded, assuming the student is in good standing in the University.

A student must complete all requirements for a baccalaureate or graduate degree no later than the date of the semester graduation ceremony. A student may not be enrolled as a transient student in another institution during the term in which the baccalaureate degree or the Associate of Arts degree is to be awarded.

## **TEACHER CERTIFICATION REQUIREMENTS**

Since July 1, 1980, initial certification requirements (Temporary Certificate) in Florida have included three basic components with a fourth now added as prerequisite to (Regular Certificate) full certification. The components are:

### **1. General Preparation**

Courses included in this category are normally classified as general education (i.e., General Education Program). A graduate with a Bachelor's degree from an accredited institution shall be considered to have met the General Preparation requirements.

### **2. Teaching Specialization**

Courses included in this category are normally classified as the major area in a student's college program. Other subjects can be shown if the specific requirements in 6A-4.07 through 6A-4.35 Florida Requirements for Teacher Certification have been met.

### **3. Professional Preparation**

Students can complete a program of Professional Preparation by one of two means at UCF. These means are:

A. The State-Approved Program of Teacher Education (i.e., a major in the College of Education) and satisfaction of state requirements for SAT or ACT scores.

B. The Basic Certification Program (i.e., a major in some other college) and admissibility to the professional phase of the program.

### **4. Comprehensive Examination**

Competency must be demonstrated on a written examination in the areas of Mathematics, Reading, Writing, and Professional Skills. Examinations will be administered at least three times per year throughout the State of Florida.

Beginning July 1, 1981, a Regular Florida Teacher's Certificate may be issued to persons meeting all requirements for the Temporary Certificate and satisfactorily completing a year-long beginning teacher program approved by the State Board of Education.



# OFFICE OF UNDERGRADUATE STUDIES

**Associate Vice President and Dean:** *Stuart A. Lillie*, AD 210, Phone (407) 823-2226  
**Associate Dean:** *Paul R. McQuilkin*, AD 210, Phone (407) 823-2691  
**Assistant Dean:** *David Dees*, AD 210, Phone (407) 823-2691  
**Assistant Dean:** *Robert L. Belle, Jr.*, AD 225, Phone (407) 823-2716  
**Assistant to the Dean:** *C. Barth Engert*, AD 210, Phone (407) 823-2691

The purpose of the Office of Undergraduate Studies is to enhance students' undergraduate education from admission through graduation. Undergraduate Studies oversees academic advisement, CLAST, the General Education Program, the Gordon Rule, intercollege programs, and placement examinations. Working with the University Admissions and Standards Committee, Undergraduate Studies reviews student problems in such areas as admissions, class schedules, grade forgiveness policy and withdrawals. The Office works to improve undergraduate teaching through the Learning Resource Council. Undergraduate Studies is responsible for the Offices of the Registrar, Admissions and Financial Aid.

Undergraduate Studies offers academic support to students through the Office of Minority Student Services, the Student Academic Resource Center and the Student Academic Support System. Undergraduate Studies supervises the administration of the Honors Program, the Air Force and Army ROTC Programs, Cooperative Education, the Office of Community College Relations, and the McKnight Center of Excellence. Undergraduate Studies administers various University scholarships.

## AIR FORCE ROTC (Aerospace Studies)

**Chair:** *J. C. Linn*, BIO 306, Phone (407) 823-1247  
**Faculty:** *Linn, Brock, Hernandez, Irizarry, Smith, Owens*

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 both the four-year and two-year Air Force ROTC programs. The four-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. Both programs offer scholarships for selected students. Students are invited to write or visit the Department of Aerospace Studies to obtain additional information.

## 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. An Aerospace Engineering Degree is offered under the College of Engineering. AFROTC courses are listed under the prefix AFR. The curriculum is divided into two phases:

### 1. General Military Course (GMC)

The General Military Course of the freshman and sophomore courses for students in the four-year AFROTC program. These courses deal with the mission, organization, and structure of the U.S. 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 consists of Aerospace Studies offered during the 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.

## REQUISITE FOR ADMISSION TO THE PROFESSIONAL OFFICER COURSES (POC)

1. Be at least 17 years of age at the time of acceptance.
2. Be able to complete the Professional Officer Course and complete all degree require-



ments prior to reaching age 26½ if entering Flight Training, or before age 30 if entering a non-flying Air Force specialty.

3. Pass the Air Force Officer Qualifying Test.
4. Pass an Air Force medical examination.
5. Complete the application and examination process, preferably prior to January 14 of the year in which they plan to enroll.
6. Selection by the Professor of Aerospace Studies and acceptance by the University.
7. Successful completion of a summer Field Training course.
8. 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 \$100 per month.

### **AIR FORCE ROTC SCHOLARSHIP PROGRAM**

Scholarships are phased at 4, 3½, 3, 2½, and 2-year intervals. This system provides opportunities to those enrolled in both the four-year and two-year programs. These scholarships provide for full tuition, and an allowance for fees and textbooks. Scholarship recipients also receive the \$100 monthly tax-free monetary allowance.

### **SUMMER TRAINING**

All students must attend a summer Field Training course conducted at an Air Force base. 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, and they will receive approximately \$550. A six-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 Course. Students who complete the six-week course receive approximately \$800.

### **OFFICER COMMISSIONS**

Students who complete the Professional Officer Course are appointed Second Lieutenants in the United States Air Force Reserve. After completing the training program and entering active duty as reserve officers, they will serve a minimum active duty tour which varies in length depending on their particular career area. Such obligations are explained in detail during the one-on-one counseling sessions conducted with each prospect by detachment officers. During their period of active service, new officers are given the opportunity to attain career status and to obtain a regular commission in the United States Air Force.

### **MINOR**

The Department of Aerospace Studies offers a minor consisting of a minimum of 16 semester hours. Required courses: AFR 1101, 1111, 2130, 2131, 3220, 3230, 4201, 4210.

### **ARMY ROTC-MILITARY SCIENCE**

**Chair:** John T. Sanders, Trailer 522/525/527, Phone (407) 823-2430

**Faculty:** Bray, Cromwell, DeLeon, Lemelin, Morales, Perry, Powell, Thomson, Williams

The University of Central Florida, in cooperation with the U.S. Army, provides an opportunity to earn a commission as a 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 new Simultaneous Membership Program (SMP), which combines Reserve Forces duty with Army ROTC officer training courses on campus. Students earn about \$2,700 in their last two years.

### **CURRICULUM**

The Military Science curriculum is divided into three phases:

1. Basic Military Science



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 organization, equipment, weapons, map reading, land navigation, management skills, grade structure, communications, and leadership. There are no contractual obligations for students in the basic course and no commitments. It's an opportunity to see what Army ROTC is all about. (MIS 1031, 1400, 2120, and 2300)

#### 2. Advanced Military Science

The Advanced Military Science courses are normally 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 subsistence allowance of \$100.00 a month up to ten months during the school year. Each student is required to take courses that meet the Professional Military Educational Requirements. These requirements require taking at least one course in each of the following areas: Written Communication Skills, Human Behavior, Military History (AMH 3540) Computer Literacy, and Math Reasoning. (MIS 3301, 3410, 4421, and 4430.

#### 3. Summer Camp

Prior to commissioning, each cadet must successfully complete an evaluation of skills learned. This evaluation is conducted at Ft. Bragg, North Carolina, during June and July. Summer Camp requirements apply only to Advanced Military Science students. Students attending the advanced camp receive approximately \$700.00.

#### 4. A student can earn placement credit for the Basic Course classes and allowed entry into the Advanced Courses if he/she attended Basic and Advanced Individual Training or attends ROTC Basic Camp at Ft. Knox, Kentucky.

#### 5. Daytona Beach Campus students contact the Professor of Military Science at Embry Riddle Aeronautical University, Daytona Beach, FL, (904) 239-6469.

### **SUMMER TRAINING**

1. A summer training program is offered for students who are to be academic juniors without previous ROTC or military training. A student can earn placement credit for the Basic Course classes and allow entry into the Advanced Courses 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 at Fort Knox will receive approximately \$700 pay for the period. Additionally, all lodging, meals, transportation, and uniforms will be provided at no expense.

2. Qualified students can be selected to attend specialized military training during the summer months. Some of the areas of training available are:

- a. Airborne Training, b. Air Assault Training, c. Northern Warfare Training, d. Cadet Troop Leadership Training, e. Master Fitness Trainer, f. Mountain Training

### **MINOR**

The Department of Military Science offers a minor consisting of a minimum of 19 semester hours. Required courses: MIS 3301, 3410, 4421, 4430 and AMH 3540.

### **MONETARY ALLOWANCE**

All students enrolled in the Advanced Military Science Course receive a tax free monetary allowance of \$100 per month for the school year.

### **SCHOLARSHIPS**

Four- and three-year scholarships are available for all students who qualify. These scholarships provide full tuition, and fees. Additionally, scholarship recipients receive \$100 (tax free) per month and a \$225 book stipend for the Fall & Spring semesters. Scholarship applications are processed in the December-February time frame.

### **REQUISITES FOR ADMISSION TO THE BASIC COURSE**

1. Enrollment in a Baccalaureate or Masters degree program.
2. Full-time student status.

### **REQUISITES FOR ADMISSION TO THE ADVANCED COURSE**

1. Successful completion of Basic Course, Basic Camp, JROTC, prior military service, or permission of Department Chair.

2. 17 years of age at the time of entry but not more than 30 years of age at the time of commissioning. Waiverable for veterans up to age 34.
3. Successful completion of an Army physical examination.
4. Agreement to complete the Advanced Course requirements and serve on active, reserve, or national guard duty as a commissioned officer.
5. Full-time student status.

## COMMUNITY COLLEGE RELATIONS

**Director:** *Ralph Boston*, AD 210, Phone (407) 823-2231

**Assistant Director:** *Robert Snow*, AD 210, Phone (407) 823-2231

Community College Relations is responsible for: keeping community colleges informed about UCF's programs and policies; making state-wide visits to community colleges; conducting advanced orientations for AA transfers; annually publishing the UCF "Transfer Student Counseling Manual"; annually providing updated transfer information for the developing "Student OnLine Advisement and Articulation (SOLAR)" Statewide Network; monitoring the state-wide community college/university articulation agreement; serving as liaison with community college officials; and conducting appropriate workshops/meetings to maintain and improve community college relations.

## COOPERATIVE EDUCATION

**Director:** *Sheri Dressler*, PH 210, Phone (407) 823-2314

Many university students actively plan their careers through participation in cooperative education. Co-op is an academic program combining on-campus classroom study with off-campus study-related work experience for which the student receives a salary. It offers a blend of theory and practice, integrating formal university preparation with practical work experience. Through this program, students develop professional work skills, test career goals, improve academic performance, generate income, and increase prospects for full-time employment upon graduation. Students may also earn credit for objectives accomplished on a co-op assignment when this credit counts toward a student's degree requirement.





Students choose between two scheduling options, the alternating plan in which they alternate terms of full-time work with full-time school and the parallel plan in which they attend classes full time and work part time concurrently. Additionally, for students who qualify for financial aid, co-op administers the Florida College Career Work Experience Program (FCCWEP) through which employers are reimbursed 50% of the student's salary for providing career-related work opportunities.

Eligibility requirements for co-op include 1) full-time enrollment in an undergraduate or graduate degree program at UCF 2) completion of a minimum of 20 college semester hours 3) having a minimum of 1 academic semester remaining before graduation, and 4) maintenance of a minimum of a 2.5/4.0 UCF grade point average.

Co-op is available to students on all campuses in all five colleges.

## UNIVERSITY HONORS PROGRAM

**Director:** Mark Stern, PH 203, Phone (407) 823-2076

The University Honors Program is designed to enhance and broaden the talents and abilities of the most able students who matriculate at the University of Central Florida. The program includes intensified course work within traditional discipline boundaries, as well as interdisciplinary, integrated courses, independent study, international studies work, and activities beyond the classroom. The University Honors Program is oriented to accepting the best available students and expanding their horizons so that they can perform at the highest level of excellence. It is the intent of this program to prepare students for entry into the best graduate and professional schools, as well as for distinguished careers in business and public service.

Although entry into the Honors program is predicated on excellence in academic work, students are also expected to participate in extracurricular activities of the Honors Program, e.g., attendance at special guest lectures and presentations, and participation in University-related service activities, such as peer advising and tutoring. The Honors program is designed to provide students with the advantages of both an excellent undergraduate college experience and a major research university experience.

There are two distinct Honors curricula available to the student: University Honors and Honors in the Major.

**University Honors.** Admission into the University Honors Program is granted by the Honors Director. Students who seek admission into the program must apply directly to the Honors Director. It is the student's responsibility to obtain the appropriate Honors Program admissions information from the Director and to follow the procedures necessary to enter the program. Prospective Honors students and their parents are strongly encouraged to visit with the Honors Director as part of the admissions process. Due to the highly selective nature of the Honors program and the limited enrollment available, there are two categories of admission: Early Decision and Alternate Decision.

**Early Decision.** An incoming Honors freshman will be eligible for Early Decision if he or she has achieved one or more of the following distinctions: National Merit Scholarship Finalist or National Achievement Scholar Finalist or Semi-Finalist, Valedictorian or Salutatorian of a regionally accredited high school. In addition, students who meet the following academic criteria will also be eligible for Early Decision.

HIGH SCHOOL GRADE POINT AVERAGE (WTD.)	COMBINED SAT SCORE	COMBINED ACT SCORE
3.9+	1000	24
3.7 - 3.89	1100	26
3.5 - 3.69	1200	28

Students who meet any of the above criteria but apply to enter the program after the first 130 seats in the entering freshman Honors class are filled will be placed in the Alternate Decision category.

**Alternate Decision.** Students with (1) a 3.25 or better GPA and a total score of 1300 or better on the SAT or 30 or better on the ACT or (2) a 3.0 or better GPA and a total score of 1400 or better on the SAT or 33 or better on the ACT, or (3) the credentials which meet the Early Decision criteria, but who applied for entry into the program after the first 130



places were filled, may be admitted into the program under the Alternate Decision procedure. An Alternate Decision applicant must file a letter of application for admission with the Honors Director and must also submit a 500 word essay stating his or her contribution to the program. Students who seek to enter the program under the Alternate Decision procedure may be required to visit with the Honors Director for a personal interview. At least thirty students in each entering freshman Honors class will likely be chosen from the Alternate Decision category.

**Acceptance.** A student who plans to enter the University Honors Program and who is notified of acceptance into the program must file with the Honors Director a written statement of intent to enter the program and a \$60.00 payment to secure membership in the Honors Club.<sup>1</sup> The student must complete this within thirty (30) days of acceptance into the program, or a place may not be available. Once the student has completed the procedures he or she will be provided with timely notice of Honors registration and orientation.

A student who is not admitted to the program as an entering freshman may apply for admission after completing at least fifteen (15) semester hours at the University of Central Florida with at least a 3.5 GPA. Mature students who are returning to do college work after having been out of college for a period of several years, or who have never been previously enrolled in college, are especially encouraged to apply for admission to the program after one or more semesters of at least 3.5 GPA work at the University. Transfer students who seek admission will have their requests considered if they meet the high school GPA and SAT/ACT criteria listed above and have at least a 3.5 GPA in their transfer work from a regionally accredited college or university.

Students must maintain a 3.2 overall GPA and 3.0 GPA in Honors Courses in order to remain in the University Honors Program. In addition to meeting the GPA requirements, to graduate with University Honors a student must also meet the following requirements: (1) complete 12 hours of course work in Honors Sections of the General Education Program;<sup>2</sup> (2) complete, with a "satisfactory" grade, "Honors Symposium I" and "Honors Symposium II";<sup>3</sup> (3) complete one "Honors Lecture" course;<sup>4</sup> and (4) complete two upper division "Honors Seminars" outside of the major field of study.<sup>5</sup>

Students who complete a semester abroad or receive six or more hours of upper-division credit for study abroad as part of the University International Studies Program, will receive credit for completion of one upper division "Honors Seminar."

---

<sup>1</sup>The \$60.00 payment will normally be by check or money order made out to: UCF Foundation-Honors Endowment. If for any reason any applicant cannot make this payment, he or she should discuss this with the Honors Director. No student will be denied entry into the program because of inability to pay the Honors Club membership fee.

<sup>2</sup>When a student has an exceptionally high number of dual enrollment, Advanced Placement, CLEP or other work which is substituted for GEP course hours, he or she may petition the University Honors Committee to substitute, on a credit for credit basis, Honors Lecture course work or Honors Seminar course work for Honors GEP course work.

<sup>3</sup>"Honors Symposium I" and "Honors Symposium II" designate one credit hour courses which will be offered, respectively, in the Fall and Spring semester of each year. This course will include guest lectures, video and film presentations, and live performances by guest artists, e.g., musicians or poets. During each semester a field trip will be included as part of the Honors Symposium. Attendance at this series will be mandatory for all students seeking University Honors. Only one unexcused absence is permitted. The course is graded on a "satisfactory"/"unsatisfactory" basis.

<sup>4</sup>Each Fall and Spring term a three credit "Honors Lecture" course will be offered. The Lecturer will offer an integrative and original course that will be open only to Honors students. The purpose of this course is to explore cross-disciplinary domains and broaden the student's perspective beyond the usual notion of a "major" field of study. Students may take more than one Honors Lecture course, but at least one such course must be taken as part of the requirements for graduation with University Honors.

<sup>5</sup>The three credit hour "Honors Seminar" is offered within the department major areas or programs, but is broad-based in the topics which are pursued. These seminars are designed especially for Honors students and are intended for non-major participation. With the consent of the Instructor, majors will also be invited into an Honors Seminar.



By the end of the second week of the term in which a student plans to graduate with honors, the student must file a completed "Intent to Graduate with Honors" form with the University Honors Director.

A student who completes all of the requirements for University Honors will have the designation of "Graduation with University Honors" entered on the Diploma and the University transcript.

**Honors in the Major**<sup>6</sup>. Application for admission to the Honors in the Major program will be made to the department or college in which Honors are sought. Requirements for admission to Honors in the Major are: the completion of sixty hours of college credits; a cumulative 3.2 or higher grade point average, including at least twelve graded upper-division hours at the University of Central Florida; permission of the department in which such Honors are sought; and permission of the Director of the University Honors Program. Upon application and approval of the major department or college, and with notification to the University Honors Committee, GPA requirements may be waived in cases where prior work at the college level was taken at least three years previous to the current period of continuous enrollment at the college level. Participation in the University Honors Program is not a requirement for participation in Honors in the Major.

Honors in the Major is awarded upon completion of an advanced Honors Project or Thesis, and the completion of at least one upper division Honors Seminar or an Honors Directed Readings course in the department in which Honors is taken. Each department or college reserves the right to set additional requirements for Honors in the Major to be achieved.<sup>7</sup> Upon petition to the Honors Committee and with the consent of the major department, a student may be awarded credit for an Honors Seminar in the major if six hours of upper-division credit accepted by the major department or college is taken abroad as part of the University International Studies Program or other overseas program directly connected with the University. The Honors Project or thesis is to be completed under the direction of a committee of three faculty members, one of whom is the major adviser. Up to six hours of 4000-level thesis credit may be awarded for student work on the Honors Project. This program is designed to encourage original and independent work on the part of the student. A copy of the thesis, creative work or project that is the expected outcome of this course will be placed in the library. With the approval of the major department or college and notification to the University Honors Committee, an Honors student may be permitted to waive any and all of the usual requirements for completion of the major and pursue a course of study designed to fit his or her individual needs.

A student who completes all of the requirements for Honors in the Major will have the designation of "Honors in the Major" noted on the diploma and the University transcript.

#### Summary Table of Minimum Requirements for University Honors and Honors in the Major

Univ. Honors	GEP* 12 Hrs.	Seminars* 6 Hrs.	Symposium* 2 Hrs.	Lecture* 3 Hrs.
Hon. in Major	Thesis* Up to 6 Hrs.	<b>AND</b>	Dir. Rdgs.* 3 Hrs.	<b>OR</b> Hon. Major Sem.* 3 Hrs.

\*Denotes Honors Hours

<sup>6</sup>Honors in the Major also designates a program in which a particular college may undertake to award Honors for upper-division work within the college. In the case of a college-wide Honors in the Major program, the student should consult the Office of the Dean of the College for information concerning procedures and requirements related to this program. Honors in the Major work is available only at the option of each department or college.

<sup>7</sup>It is the responsibility of the Honors student to obtain a faculty adviser who will undertake the responsibility of directing the Honors Reading and Study Course. The student is responsible for notifying the Honors Director, in advance, when he or she intends to pursue the Honors Directed Readings Course. Prior to entry in the readings course, the student must file with the department or college and the University Honors Committee a readings list and study proposal signed by the faculty member under whose direction the course will be given. Credit towards Honors in the Major will be awarded by a department or college for a readings course if a grade of "A" or "B" is received by the student.





## **MINORITY STUDENT SERVICES**

**Assistant Dean and Director:** *Robert L. Belle, Jr.*, AD 225, Phone (407) 823-2716

The Office of Minority Student Services is responsible for coordinating special programs, projects, and special services for minority students. The office cooperates with existing student services in the recruitment, admission, and retention of minority students, and is responsible for monitoring and facilitating the academic progress of minority students. Minority Student Services also assists in developing cultural and social programs to enhance the development of the individual.

## **STUDENT ACADEMIC RESOURCE CENTER (SARC)**

**Director:** *Mary Helen Callarman*, PC1-102, (407) 823-5130

The Student Academic Resource Center (SARC) provides students with individualized and small-group tutoring in math, English, reading, foreign language, physics, statistics, and many other disciplines.

Every semester the SARC offers a series of CLAST Review Workshops for each of the four CLAST subtests. The SARC staff can also prescribe self-paced programs specifically designed for CLAST preparation.

The SARC provides English grammar materials for non-native students who want to develop their written English skills and various academic mentoring programs.

The Academic Mentoring Program provides academic assistance to at-risk minority students through study skills workshops, academic and career advisement, tutoring, and weekly meetings with mentors. Students are equipped with the knowledge and skills they need to be successful in college.

Each semester the SARC provides a series of study skills workshops and materials on time management, note taking, test taking, memory, left-brain/right-brain thinking, and test anxiety.

The SARC is designed to meet the individual needs of students. Its major objective is to provide students with academic support to ensure their success in college.

## **STUDENT ACADEMIC SUPPORT SERVICES**

**Director:** *Russell Tiberii*, PH 202, (407) 823-5322

Student Academic Support Services (SASS) is a student centered source of academic support and information for the UCF community. It is the focal point for the academic advising support role of the computerized degree audit system, providing consultation and



assistance to the faculty, staff and students. SASS is responsible for evaluating transfer courses/credits for appropriate application to the university's General Education Program requirements, and recording this data on the degree audits for students majoring in the Colleges of Business, Education, Engineering, Health and Public Affairs, and for pre-majors (undecided majors). SASS is also responsible for evaluating student's records to determine their appropriate catalog year.

Four academic advising and support programs are coordinated or directed through SASS; peer advising, early admission program advising and administration, pre-major (undecided) advising, and displaced major advising. Central to all academic advising and support is a developmental approach to assisting students toward the fulfillment of their academic and life goals. Through individual and group advising programs, SASS provides general support for self-assessment, exploration of academic disciplines, and decision making. Course selection assistance is provided during each registration period, and long range academic planning assistance is provided throughout the academic year.

# ACADEMIC PROGRAMS

## 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 an overall and UCF grade point average of 2.0 or above, fulfillment of the General Education Program requirements, and completion of the last 20 credit hours in residence at UCF. In addition, any student who wishes 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 the Office of Undergraduate Studies, AD 210 and should be completed by the end of the fifth week in the semester 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 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 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, Communication, Economics, English, Film (RTV), Foreign Languages (General), French, History, Humanities, Journalism, Music, Music Education, Philosophy, Political Science, Psychology, Radio-Television, Sociology, Spanish, Speech, Theatre

Bachelor of Fine Arts (B.F.A.)

*Major:* Art

Bachelor of Science (B.S.)

*Majors:* Biology, Botany, Chemistry, Computer Science, Forensic Science, Limnology, Mathematics, Physics, Psychology, Social Sciences (interdisciplinary), Statistics, Zoology

#### College of Business Administration

Bachelor of Science in Business Administration (B.S.B.A.)

*Majors:* Accountancy, Economics, Finance, General Business Administration, Hospitality Management, Management, Marketing

#### College of Education

Bachelor of Science (B.S.)

*Major:* Elementary Education, Exceptional Child

*Major:* K-12--Art Education, Physical Education

*Major:* Secondary Education, English Language Arts, Foreign Language, Mathematics, Science Education Social Science, Speech, Vocational Education and Industry Training

#### College of Engineering

Bachelor of Science in Engineering (B.S.E.)

*Majors:* Aerospace Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Environmental Engineering, Industrial Engineering, Mechanical Engineering

Bachelor of Science in Engineering Technology (B.S.E.T.)

*Major:* Computer Engineering Technology, Design Engineering Technology, Electronics Engineering Technology, Information Systems Engineering Technology, Operations Engineering Technology



## **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.)

*Major:* Cardiopulmonary Sciences, Health Services Administration, Medical Laboratory Sciences, Medical Record Administration, Molecular Biology and Microbiology, Radiologic Sciences, Physical Therapy

Bachelor of Science in Nursing (BSN)

*Major:* Nursing

Bachelor of Social Work (B.S.W.)

*Major:* Social Work

## **Double Majors**

Any UCF student working toward a single bachelor's degree (a B.A. degree or a B.S. degree) who satisfies the requirements for two majors will be awarded one diploma, but both majors will be indicated on the student's permanent record. 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. Although both majors will be indicated on the student's permanent record, 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 degree has specific minimum requirements. (See Second Baccalaureate Degree.)

## **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 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 graduation requirements of the major department, and the 30 semester-hour residency requirement. Students holding the baccalaureate degree from accredited U.S. institutions are considered to have completed all General Education Program Requirements. Students who hold degrees from foreign institutions may be required by the Dean of Undergraduate Studies 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 hours for a second degree or more than 30 hours to be taken in residence at UCF. Students should confirm department and college requirements with their academic advisors.

## **Minors**

Minors in a limited number of programs have been authorized 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.

## **GRADUATE PROGRAMS**

See listing at the beginning of each college section. For further information on a particular program, contact the departmental office in the respective college or see the Graduate Catalog.



## PRE-HEALTH PROFESSIONS ADVISING

### Preprofessional Coordinators:

College of Arts & Sciences: *H. C. Sweet*, BIO 210, Phone (407) 823-2141

College of Health & Public Affairs: *J. F. Charba*, BL 331, Phone (407) 823-5932

Pre-Health Professions Advisement was established to function as a service to all students preparing for and seeking admission to professional schools of chiropractic, dentistry, medicine, osteopathic medicine, optometry, pharmacy, podiatry, and veterinary medicine. The services afforded students through this office are numerous and 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 a minimum overall GPA of 2.8 and 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). Additionally, all pre-health professions students are strongly encouraged to affiliate with and participate in the activities of the Preprofessional Medical Society.

### PREPROFESSIONAL PLANNING

Pre-health professions students should bear in mind that admission to a health professional school is competitive. For this reason, pre-health professions students should pay close attention to the characteristics of successful applicants. For example, while some dental and medical schools require only two and three years of college preparation, approximately 91 percent of all predoctoral and 95 percent of all premedical students accepted throughout the nation each year have completed four years of college. Consequently, since pathways such as "premed" 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. Obviously, pre-health professions students are expected to be high achievers, and to obtain good grades with heavy credit hour loads and rigorous course combinations. Most professional schools expect applicants to present at least a B average and to carry a minimum of 15 credit hours each term, with the exception of summer terms. Sustained high-level performance while carrying 15 or more credit hours is one of the strongest predictors of success in professional school.

### 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 preprofessional process (academic preparation, applications, prescreening, interviews, admission exams, admissions, scholarships etc.) is explained in depth. Following this awareness, students are prepared to make informed decisions relative to planning their pre-health professional studies.

Concerning required courses 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, BSC 2010C, ZOO 2010C

Genetics, PCB 3063 and 3063L

General Chemistry, CHM 2045, 2046, 2046L

Organic Chemistry, CHM 3210, 3211, 3211L

Microbiology, MCB 3013C

English Composition, ENC 1101, 1102

Calculus, MAC 3233 (although MAC 3233 is acceptable, the MAC 3311, 3312, sequence is preferable)



Physics, PHY 3053C, 3054C (although the preceding courses are acceptable, the sequence PHY 3048, 3048L, 3049L, is preferable)

Statistics, STA 3023

Additional *required/strongly recommended* courses not common to *all* preprofessional students are the following:

*Premedical and pre dental* students should take:

Molecular Cell Biology, PCB 3023

Comparative Anatomy, ZOO 3713C or

Human Anatomy, ZOO 3733C

Embryology, ZOO 4603C

Histology, ZOO 4753C

Microbiology, MCB 3203C, and PCB 3233

Analytical Chemistry, CHM 3121C plus either (or both) Biochemistry, BCH 4053, 4054, or

Physical Chemistry, CHM 3410.

*Preoptometry* students *must* take

General Botany, BOT 2010C

Microbiology, MCB 3203C and it is *strongly recommended* they take Human Anatomy

and/or Human Physiology, ZOO 3733C, PCB 3703C

*Prepharmacy* students *must* take

General Botany, BOT 2010C

Microbiology, MCB 3203C and it is *strongly recommended* they take Histology, ZOO

4753C; and Biochemistry, BCH 4053

*Preveterinary* students *must* take

General Botany, BOT 2010C

Analytical Chemistry, CHM 3121C

Microbiology, MCB 3203C

\*Animal Science, ASG 3003, and ASG 3402. \*These courses to be taken as a transient student at the University of Florida, preferably during the summer following the sophomore year.

It is *strongly recommended* they also take:

Comparative Anatomy ZOO 3713C;

Histology ZOO 4753C;

Embryology ZOO 4603C; and

Biochemistry BCH 4053

**For Maximal Preparation:** Additionally, the UCF courses Biochemistry (BCH 4053), Histology (ZOO 4753C), Embryology (ZOO 4603C), Genetics (PCB 3063), Immunology (PCB 3223), Neuroanatomy (ZOO 5745C) and Human Anatomy (ZOO 3733C), are strongly recommended for maximum preparation for the Basic Medical Sciences of most first year professional school curricula.

### **Meaningful Electives:**

All pre-health professions students are strongly encouraged to make prudent selections of elective courses complementary to their pre-health professions preparation. Listed below are a number of appropriate courses from which elective selections can be made.

Accountancy: (ACG 2001 and 2011) or ACG 3023.

Biochemistry: BCH 4053.

Communication: SPC 3301 or 4330.

Endocrinology: PCB 5806C

Health Sciences: APB 3600; HSC 3122; 3110; 4411; SPA 3001.

Human Anatomy: ZOO 3733C.

Human Physiology: PCB 3703C

Literature: LIT 2110 and 2120.

Management: GEB 3004.

Philosophy: PHI 3600; 3630.

Political Science: PUP 4602.

Psychology: CLP 3143; DEP 3004; 3202; 3212; EAB 3704; DEP 3464; PSB 3002; 3442; 4013C; PCO 4203.



## 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 chosen degree tract. 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 student's academic career will help him or her 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.

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, s/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 s/he performed and his/her choice of enrichment electives. Factors to consider are personal interests, finances 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 (AAMCAS, 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 preprofessional screening committee process is initiated in April. Application packets are available at the Pre-Health Professions Advisement Office during the month of April. Dental applicants must return completed packets by the first Friday in May. All other applicants (Chiropractic, Medical, Optometry, Podiatry, Pharmacy, and Veterinary) must return completed packets by the third Friday in May.

Student applicants are scheduled for their Screening Committee interviews in the order of their return of completed application packets. A master schedule of all interviews for Fall term is posted on the Pre-Health Professions Advisement Office bulletin board and copies are available at the Pre-Health Professions Advisement Office, 103 Biology.

## ADMISSIONS EXAMINATIONS

Various standardized examinations are required of applicants as a part of the admissions process to the professional schools (dentistry-DAT; medicine-MCAT; optometry-OAT; pharmacy-PCAT; podiatry-MCAT; veterinary medicine-GRE or VAT). These examinations are generally offered twice each year: in the Spring and Fall.

## ADMISSIONS EXAMINATIONS

Various standardized examinations are required of applicants as a part of the admissions process to the professional schools [dentistry-DAT; medicine-MCAT; optometry-OCAT; pharmacy-PCAT; podiatry-MCAT; veterinary medicine-GRE or VAT]. These examinations are generally offered twice each year: in the Spring and Fall. Pre-health professions students are advised to take the appropriate examination in the *Spring* preceding applica-



tion to the professional school rather than waiting for the Fall examination. There are numerous support systems and review programs available to assist applicants with their preparation. All applicants are encouraged to **maximize** their preparation before registering to take any of these exams the first time. Taking an admissions exam on a trial basis is not recommended.

#### RELATED REFERENCES

Publications of special interest and usefulness to preprofessional students include the following:

1. *Admission Requirements of U.S. and Canadian Dental Schools*, published by the American Association of Dental Schools, 1625 Massachusetts Avenue, N.W., Washington, D.C. 20036;
2. *Medical School Admission Requirements, United States and Canada*, published by the Association of American Medical Colleges; One Dupont Circle, N.W., Washington, D.C. 20036;
3. *The Education of Osteopathic Physicians*, published by the American Association of Colleges of Osteopathic Medicine; 4720 Montgomery Lane, Suite 609, Washington, D.C. 20114;
4. *Information for Applicants to Schools and Colleges of Optometry*, published by the Association of Schools and Colleges of Optometry; 213 East Ohio Street, Chicago, Illinois 60611;
5. *Pharmacy School Admission Requirements*, published by the American Association of Colleges of Pharmacy; 1730 "M" Street, N.W., Washington, D.C. 20036;
6. *Podiatric Medical Education, Information for the Prospective Student*, published by the American Association of Colleges of Podiatric Medicine and American Podiatry Association, 20 Chevy Chase Circle, N.W. Washington, D.C. 20015;
7. *Veterinary Medicine, A Career Of Choices: A Handbook for Advisors*, prepared by the Office of Student Affairs and Admissions, New York State College of Veterinary Medicine, Cornell University, Ithaca, New York 14853.

Preprofessional students are encouraged to obtain a copy of the admissions publication appropriate to their preprofessional area. Several of these publications are available in the University bookstore.

#### Other Health Professions

For Nursing and other Allied Health Services, see College of Health and Public Affairs.



# COLLEGE OF ARTS AND SCIENCES

## UNDERGRADUATE PROGRAMS

Anthropology (BA)	Limnology (BS)
Art (BA)	Mathematics (BS)
Art (BFA)	Music (BA, BM)
Biology (BS)	Music Education (BME)
Botany (BS)	Philosophy (BA)
Chemistry (BS)	Physics (BS)
Communication (BA)	Political Science (BA)
Computer Science (BS)	Psychology (BA) (BS)
Economics (BA)	Radio-Television (BA)
English (BA)	Social Sciences (Int.)(BS)
Film (BA)	Sociology (BA)
Foreign Language Combination (BA)	Spanish (BA)
Forensic Science (BS)	Speech (BA)
French (BA)	Statistics (BS)
History (BA)	Theatre (BA)
Humanities (BA)	Zoology (BS)
Journalism (BA)	

## PREPROFESSIONAL PROGRAMS

Pre dental	Prepharmacy
Prelaw	Prepodiatry
Premedical	Preveterinary
Preoptometry	

## OTHER PROGRAMS

Afro-American Studies	Judaic Studies
American Studies	Latin-American Area Studies
Asian Studies	Soviet Area Studies
Canadian Studies	Women's Studies
Community Arts	

See also: Summer Study Programs under Department of Foreign Languages.

## GRADUATE PROGRAMS\*

Biology (MS)	Physics (MS, Ph.D.)
Chemistry, Industrial (MS)	Political Science (MA)
Communication (MA)	Psychology, Clinical (MS)
Computer Science (MS, Ph.D.)	Psychology/Human Factors (Ph.D.)
English (MA)	Psychology, Industrial (MS)
History (MA)	Sociology, Applied (MA)
Mathematical Science (MS)	Statistical Computing (MS)

\*See the Graduate Studies catalog for detailed descriptions of these programs.



# COLLEGE OF ARTS AND SCIENCES

**Dean:** *Edward P. Sheridan*, FA 511, Phone (407) 823-2251

**Associate Dean:** *Kathryn L. Seidel*, FA 511, Phone (407) 823-2251

**Associate Dean:** *TBA*

**Assistant Dean:** *Bruce A. Whisler*, FA 511, Phone (407) 823-2251

**Assistant Dean:** *Diana Velez*, FA 511, Phone (407) 823-2251

The College of Arts and Sciences, the largest academic unit in the University, includes the following departments: Art; Biology; Chemistry; Communication; Computer Science; English; Foreign Language; History; Mathematics; Music; Philosophy and Humanities; Physics; Political Science; Psychology; Sociology and Anthropology; Statistics; and Theatre.

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, the fine arts, the natural sciences, and the social sciences. The departments offer more than sixty baccalaureate, graduate, and preprofessional programs in these areas. For additional information concerning graduate programs, please refer to the Graduate Catalog.

In addition to providing strong academic degree programs in the areas noted above, the College of Arts and Sciences functions in a service mode by making available a wide selection of courses designed to complement the offerings of the other four colleges of the University. These offerings include most of the courses necessary to satisfy the University's general education requirement for all students.

A student enrolled in the College as an undergraduate must fulfill all University degree requirements including that for general education, as well as the particular requirements set forth by the department for each area of specialization. To be certified for graduation, a student must achieve at least a "C" grade point average (2.0) in the courses of his or her major. Some departments also require a 2.0 in each major course; consult advisors 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 course work or an individual study program may be assigned consistent with the needs of the student and must be completed before the degree is granted.

## PREPROFESSIONAL PROGRAMS

**Pre-Health Coordinator:** *Dr. H. C. Sweet*, BIO (407) 823-2141

Students desiring to continue their education in health-related graduate programs (i.e., dentistry, medicine, osteopathic, optometric, pharmacy, podiatry or veterinary medicine) must select an academic major. Anyone completing the professional school's requirements is eligible to apply, regardless of major; however majoring in the biological or chemical sciences facilitates completing both the requirements for admission to a professional school and those for graduating from UCF. Students concerned with planning for, applying to, and being successful in professional school can obtain information from the Pre-Health Coordinator. Academic advisement concerning UCF and departmental requirements is provided by the advisor with the department of the student's major.

## PRELAW PROGRAM

**Pre-Law Coordinator:** *Dr. R. L. Bledsoe*, FA 416, Phone (407) 823-2080

There is no preferred major for prelaw. 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 required. Majors such as English, History, Humanities, Legal Studies, 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, LSAT, careers, and law schools can be obtained from the Pre-Law Coordinator.

Advisement of prelaw students will be provided in the area where a major is chosen; for example, a prelaw student who wishes 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.

## **ADVISEMENT**

### **Office of Academic Support and Information Services (OASIS)**

**Director:** Ms. Judith Boyte, FA 208, Phone (407) 823-2492

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 FA 208 or by calling (407) 823-2492.

### **Program Planning**

Although suggested curricula are available in most areas, students will plan their program in consultation with a faculty advisor appointed by the chair of the major department or by the Dean of the College of Arts and Sciences.

### **Foreign Language Proficiency Requirement**

The College of Arts and Sciences has a foreign language proficiency requirement pertaining to ALL majors in the college:

Students graduating with a Bachelor of Science degree must demonstrate a proficiency in a foreign language equivalent to one year of college instruction. Students graduating with a Bachelor of Arts degree must demonstrate a proficiency equivalent to one and one-half years of college instruction, i.e. FRE 2200, SPN 2230, GER 2200.

The Foreign Language Proficiency requirement may be satisfied by successful completion of the appropriate coursework or by examination. Foreign language proficiency examinations are given each semester in Counseling and Testing (RS 117); students must register in advance for the exams. Students who were required to submit a passing TOEFL (Test of English as a Foreign Language) score are also considered to have met the proficiency requirement.

**PLEASE NOTE THAT THIS FOREIGN LANGUAGE PROFICIENCY REQUIREMENT IS A COLLEGE OF ARTS AND SCIENCES REQUIREMENT THAT EXCEEDS ANY UNIVERSITY-WIDE GRADUATION AND/OR ADMISSION REQUIREMENT.**

Any questions or requests regarding the Arts and Sciences Foreign Language Proficiency requirement should be directed to the OASIS (Office of Academic Support and Information Services) located in FA 208, Phone: (407) 823-2492.

### **Natural Science Majors Requirement**

In addition to meeting all University requirements, the College requires that each degree program in the departments of Biology, Chemistry, Computer Science, Mathematics, Statistics, and Physics contain courses which will introduce the student to the three major scientific disciplines of physical science, biological sciences, and mathematical and computer sciences.

To satisfy this requirement, students must successfully complete a minimum of four courses under a semester system (or six courses under a quarter system) distributed between the two scientific disciplines outside that of their major, with a minimum of one course under a semester system (or two courses under a quarter system) in each discipline. At least one course in each discipline must contain a laboratory component. Some departments have identified a specific group of courses from which its majors may select in order to satisfy this requirement. In addition, some departments may have imposed additional criteria which must be met in order for their majors to satisfy this requirement. It is the student's responsibility to insure that both Departmental and College criteria have been met.

With proper justification students may be permitted to utilize courses offered outside the



College of Arts and Sciences and to mix courses taken under both quarter and semester systems to satisfy this requirement. Any requests for such waivers must be accompanied by a departmental recommendation and should be submitted to the Office of the Dean, College of Arts and Sciences.

#### **FOREIGN STUDY CENTERS—Undergraduate Interinstitutional 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 GPA of 2.5 or above in all State Universities are eligible to apply for one or both semesters as interinstitutional 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. Field trips and museum visits are common to both. For further information consult Dr. Thomas Greenhaw in the Department of History (London Program), (407) 823-2224 or Dr. Robert Flick in the Department of Philosophy and Humanities (Florence Program), (407) 823-2273.

#### **AFRO-AMERICAN STUDIES PROGRAM**

The College of Arts and Sciences offers a minor but not a major in Afro-American Studies consisting of a minimum of 16 semester hours. Required courses: AMH 3570, LIN 4612, LIT 4354, SYD 3720. For further information, contact Dr. K. Seidel, Dean's Office, FA 511, (407) 823-2251.

#### **AMERICAN STUDIES PROGRAM**

The minor in American Studies requires at least 21 hours of approved upper-division courses. The courses include at least three hours of restricted electives from each of three fields: literature and humanities, social sciences, and history. Other courses may be chosen from the list of approved courses available from the American Studies advisor. For further information, contact Dr. K. Seidel, FA 511, (407) 823-2251.

#### **ANTHROPOLOGY (see Department of Sociology and Anthropology)**

#### **DEPARTMENT OF ART**

**Acting Chair:** Jagdish J. Chavda, ART 117, Phone (407) 823-2676

**Faculty:** Chavda, Congdon, Eyfells, Gaudnek, Lotz, Rivers, Skoglund, Wahlman, Wellman

The Department of Art has 10 full-time and 8 part-time faculty members teaching traditional studio arts, graphic design, and art history, as well as an endowed chair in Community Arts (see *Community Arts*).

The curriculum in Art provides professional preparation in art history, visual arts administration, and in the studio areas of ceramics, community arts, computer graphics, drawing, fibers-fabrics, graphic design, painting, photography, printmaking, and sculpture, as well as combination specializations. Both the Bachelor of Arts and the Bachelor of Fine Arts degrees are offered. 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, the Altrusa Club of Winter Park, and the Albin Polasek Foundation.

**Portfolio Requirements For Studio Majors:** A selective portfolio of work representing the student's studio accomplishments in design and drawing is required for faculty review at the end of the sophomore year or at the completion of 12 semester hours of studio art courses. Faculty evaluation of this portfolio will determine if the student should advance further in the B.A. program. The University reserves the right to hold, for exhibition purposes, work done in classes.

**Portfolio Requirements for Graphic Design Specialization:** Courses at many institutions which are titled "Commercial Art" or "Advertising Art" may not be applicable toward the Graphic Design concentration at UCF. Students wishing to transfer courses taken at other institutions must present a portfolio of work for evaluation toward use in the

concentration. This program's last two-year curriculum is sequential; portfolio applications are accepted only for Fall semester. **Deadline for all portfolio applications is April 1 for commencing the program in Fall semester.**

### MINORS

The Department of Art offers two minors, one in studio art and one in art history. The Art Department residency requirement consists of 6 semester hours of regularly scheduled 3000-4000 level art courses. These 6 hours must be in an area of specialization.

**Required courses for the minor in studio art:** ARH 2050 & 2051, ART 2201 & 2202, and nine semester hours of art at the 3000 and 4000 level. To be eligible for a minor in art, a student must have a GPA of at least 2.0 in all art courses subject to the following constraints: no "D" grades in art courses from other institutions are transferable. Total hours: 21.

**Required courses for the minor in art history:** ARH 2050 & 2051; 3 hours chosen from ART 2201, 2202, or 2300; and 15 hours from the following: ARH 3456, 3520, 3530, 3683, 3710, 3720, 4311, 4312, 4350, 4430, 4450, & 4655. ARH 3930 and 4710 may also apply with approval of an art history advisor. Total hours: 24.

### Two Track Major in Graphic Design

I ART HISTORY			(9)
a. ARH 2050 (required)			3
b. ARH 2051 (required)			3
c. Any upper division ARH			3
II DESIGN FUNDAMENTALS			(6)
a. ART 2201 (required)			3
b. ART 2202 (required)			3
III DRAWING FUNDAMENTALS			(6)
a. ART 2300 (required)			3
b. ART 2301 (required)			3
IV STUDIO ART SPECIALIZATION			(15)
<i>TRACK A</i>	OR	<i>TRACK B</i>	
ART 3281 Type & Design (3)		ART 2481 Intro. to Computer Graphics (3)	
ART 3280 Graphic Design I (3)		ART 3281 Type & Design (3)	
ART 3232 Graphic Design II (3)		ART 3280 Graphic Design I (3)	
ART 4235 Adv. Graphic Design (3)		ART 3232 Graphic Design II (3)	
ART 4237 Special Problems in Graphic Design (3)		ART 3484 Computer Graphics (3)	
		ART 4483C Advanced Computer Graphics (3)	
V RESTRICTED ELECTIVES (Upper Division Hours)			(12)
Minimum of three (3) areas represented, all courses must be outside of the area of specialization.			
Drawing	3330 (3),		3331 (3)
Painting	3510 (3),		4530 (3)
Printmaking	3400 (3),		4402 (3)
Photography (PGY)	3401 (3),		4420 (3)
Sculpture	3701 (3),		4703 (3)
Ceramics	3110 (3),		4111 (3)
Fibers & Fabrics	4130 (3)		
Any Upper Division ARH	(3)		
Special Topics	(3)		
TOTAL required hours in major (Graphic Design Track A or Track B)			(48)
Graduation Portfolio Presentation.			



## Bachelor of Arts: Art

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements  
A student must achieve at least a "C" grade point average (2.0) in the courses of his or her major.  
No "D" grades in Art courses from other institutions are transferable.  
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.
3. Required courses  
Varies with Specialization
4. Restricted Electives  
Varies with Specialization
5. Electives  
To be selected primarily from upper level courses outside the Department, with the approval of the student's advisor.

Total Semester Hours Required 120

### AREAS OF SPECIALIZATION

- I. Art History Major 15-18 hours
  - A. Required Courses
    - ARH 2050, 2051 History of Art I, II 6 hours
    - ART 2201C Design Fundamentals I 3 hours
    - ART 2300C or 2202 Drawing Fund. I, or Design Fund. II 3 hours
    - ARH 4912 Senior Research 3-6 hours
  - B. Art History Specialization 15 hours  
3000 and 4000 level Art History Courses from the following:  
ARH 3060, 3456, 3520, 3530, 3683, 3710, 3720, 3905, 4170, 4311, 4312, 4350, 4430, 4450, 4655, 4690, or others, as approved by advisor.
  - C. Restricted Electives 9 hours  
Any three of the following and not more than one from each area:  
Any ARH course listed under B (3)  
ARH 4800 Theory and Criticism of the Visual Arts (3)  
ARH 3820 Visual Arts Administration (3)  
ARH 3802 Happenings (3)  
ENC 3311 Advanced Expository Writing or ENC Journal Writing (3)  
EUH 3000-4000-5000 level course (3)  
ARH 3000-4000-5000 level Community Arts course (3)  
ARH 3000-4000-5000 level studio course (3)
  - D. Foreign Language (12 hours)  
2 years of college level courses (proficiency).
  - E. Comprehensive Art History Examination:  
ARH 4906 Directed Independent Studies (3)  
Total Semester hours in Art and Art History Courses 45-48  
Total Semester Hours Required 120 hours
- II. Art (Studio) Major 24 hours
  - A. Required Courses
    - ART 2201C, 2202C Design Fundamentals I, II 6 hours
    - ART 2300C, 2301C Drawing Fundamentals I, II 6 hours
    - ARH 2050, 2051 History of Art I, II 6 hours
    - ARH 3000-4000 Art History Courses 6 hours
  - B. Studio Specialization 12-15 hours  
3000-4000 level courses from:  
Ceramics, Drawing, Fibers-Fabrics, \*Graphic Design, Painting, Photography, Printmaking, and Sculpture.  
\*See Two-Track specialization in Graphic Design

- C. Restricted Electives 9 hours  
 3000-4000 level courses from at least 3 areas outside the area of specialization: Art History, Ceramics, Drawing, Fiber-Fabrics, Film Design, Graphic Design, Painting, Printmaking, Photography, Sculpture, and Special Topics Courses.
- D. Portfolio Requirement  
 Seniors are required to submit a portfolio of representative work in the student's area of specialization, for review by Faculty.  
 Total Semester Hours in Art & other recommended courses 45-48  
 Total Semester Hours Required 120

## Bachelor of Fine Arts: Art

The B.F.A. degree is recommended for studio art majors who plan to attend graduate school. Admission to the B.F.A. degree program requires the student to submit a formal application and a portfolio to the Faculty no earlier than the first semester of the student's senior year (upon completion of 90 semester hours). Once admitted to the B.F.A. program, the student must complete an additional 30 semester hours at UCF, with 12 hours in Art courses. A senior exhibition is required for graduation. A portfolio is required for Graphic Design specialization.

### Degree Requirements

- See University Degree Requirements.  
 Students must achieve at least a "B" grade point average (3.0) in the courses of their major.
- See Special college and/or department requirements: Students must achieve at least a 3.0 average in courses in the major. No "D" grades in transfer Art courses; Department Residency Requirement consists of at least 18 semester hours of regularly scheduled upper-level courses must be taken from the UCF Department of Art. Nine of these must be in the area of specialization.
- Required Courses 27 hours
 

ART 2201C, 2202C	Design Fundamentals I, II	6 hours
ART 2300C, 2301C	Drawing Fundamentals I, II	6 hours
ARH 2050, 2051	History of Art I, II	6 hours
ARH 3000-4000	Art History Courses	9 hours
- Area Specialization 3000-4000 level courses from: Ceramics, Drawing, \*Graphic Design, Painting, Printmaking, Photography, and Sculpture or combinations. Combination specializations in any two media require 9 or 12 hours of upper-division courses in each half of the combination for a total of 21 hours.  
 \*(See Two Track major in Graphic Design. Minimum credit hour requirement for Graphic Design specialization will be 18 hours.) 15-21 hours
- Restricted Electives 12 hours  
 3000-4000 level courses from at least three areas outside the student's specialization: Art History, Ceramics, Drawing, Fiber and Fabrics, Film Design, Graphic Design, Painting, Printmaking, Photography, Sculpture, and Special Topics Courses.  
 ARE and ARH Community Arts courses are acceptable, with consent of advisor.
- Electives 12 hours
 

Total Semester Hours in Art Courses	54-60
Total Semester Hours Required	120

## ASIAN STUDIES

This program offers a minor, but not a major, in Asian Studies. The program is interdisciplinary and is administered by the Department of Philosophy and Humanities. For further information, contact Dr. Kassim, FA 467, (407) 823-2273.



## DEPARTMENT OF BIOLOGY

**Acting Chair:** D. H. Vickers, BL 210, Phone (407) 823-2141

**Faculty:** Ehrhart, Koevenig, Kuhn, Miller, Osborne, Snelson, Stout, Sweet, Taylor, Vickers, Whittier, Ellis (Professor Emeritus)

The Department of Biology offers Bachelor of Science degree programs in Biology, Botany, Limnology, and Zoology; a minor in biology; and the Master of Science in Biology. The core curriculum required of all undergraduate degree programs 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. In addition, graduates are well prepared to further their education in professional or graduate schools. Selection of electives, in consultation with a faculty advisor, permits emphasis on a specific subspecialty within a degree program. Careful selection of restricted and unrestricted electives allows a student to satisfy all requirements for admission to professional or graduate school, while at the same time completing a B.S. degree in Biology. Research experience and exposure to specialized topics not taught through formal courses may be gained through independent study contracts.

### MINOR IN BIOLOGY

The Department of Biology offers a minor in Biology consisting of a minimum of 28 hours. Required courses (18 hours): BOT 2010C; BSC 2010C; PCB 3043; PCB 3063; ZOO 2010C. Upper Division Restricted Electives (10 hours): At least 10 hours of course work taught within the Department of Biology (designated as being within the College of Arts & Sciences-AS) with at least one lecture or lecture/lab course from Group A or C and one such course from PCB 3023 or Group B or D. Groups A-D are listed under the restricted elective subsection of the Biology core curriculum.

To be eligible for a minor in Biology a student must have a GPA of at least 2.0 in all UCF biology courses subject to the following constraints: (A) No CLEP or TSD credits may be used (B) No "D" grades from other institutions will be accepted (C) At least 10 of the 28 hours must be earned in residence at UCF.

## Bachelor of Science: All Biology Majors (Biology, Botany, Limnology, Zoology)

### Degree Requirements

1. To be eligible for any undergraduate degree offered by the Department of Biology a student must have a GPA of at least 2.0 in all UCF biology courses subject to the following constraints: (A) No CLEP or TSD credits may be used (B) No "D" grades from other institutions will be accepted (C) No more than 4 hours of independent study, directed research or similar types of credit may be applied toward major requirements; (D) at least 15 hours of all Biological Sciences credits applied toward the major must be earned in residence at UCF within the Department of Biology.

Students seeking a double major within the Department of Biology must satisfy the requirements for both majors and must take no fewer than 40 semester hours of upper division restricted elective coursework appropriate to the combined areas of specialization of the two majors. Double majors receiving one degree from UCF's Department of Molecular Biology and Microbiology and another from the Department of Biology must also conform to the above requirement.

2. Core requirements: 47-52 hours  
Must be satisfied by all students seeking an undergraduate degree from the Department of Biology. These requirements apply equally to Biology, Botany, Limnology, and Zoology majors unless otherwise noted under the specific degree requirements for a particular major.

### Biology Core Courses (21 hours)

BOT 2010C	General Botany	4 hours
BSC 2010C	General Biology	4 hours
ZOO 2010C	General Zoology	4 hours

The above courses are prerequisite or corequisite to all upper division biology courses.

PCB 3023	Molecular Cell Biology	3 hours
PCB 3043	Ecology	3 hours
PCB 3063	Genetics	3 hours

### Cognate Sciences Core Courses (26-31 hours)

The below requirements represent minimum physical science requirements of a Life Sciences student. Those expecting to enter professional or graduate school after receiving a B.S. degree at UCF *should* plan to take a full year of Physics with laboratory. Such students may wish to take Biochemistry (BCH 4053, 54) as well. Calculus is also considered desirable for many postgraduate and professional programs. Students are urged to consult their advisor. Preprofessional students may obtain current information about professional programs and admission requirements from the College of Arts and Sciences preprofessional coordinator, Dr. Haven Sweet (BIO 407, phone 823-2922).

CHM 2045, 2046, 2046L	Chem. Fund I and II with lab	8 hours
	and one of the following 2 course groups	
CHM 3210, 3211, 3211L	Organic Chem. I & II with lab	8 hours
or	or	
CHM 3120C and CHM 2205	Analytical Chemistry and Intro Organic & Biochemistry	10 hours
	Minimum Chemistry	16-18 hours
PHY 3053	College Physics I	4 hours
or	or	
PHY 3054	College Physics II	4 hours
or	or	
PHY 3048 & PHY 3048L	Physics for Eng. & Sci. with Lab	4 hours
	Minimum Physics	4 hours
MAC 1104 and higher	College Algebra and higher	6 hours
or	or	
Any Calculus course	Calculus 3-5 hours	
	Minimum Mathematics	3-6 hours
STA 3023	Statistical Methods	3 hours
	Minimum Statistics	3 hours

3. Upper Division Restricted Electives: 26-29 hours\*
- Must be selected regardless of major from the below course groupings and each student must complete *at least one* BOT and *at least one* ZOO course. In addition, each student must complete *at least one* lecture or combined lecture/laboratory course from each of the following groups with additional required credits to meet the individual major requirements. Courses can be selected from any of the below listed courses unless otherwise noted under the specific degree requirements for a particular major.

#### Group A

BOT 4713C	Plant Taxonomy	5 hours
ENY 4004C	General Entomology	4 hours
MCB 3013C	General Microbiology	5 hours
MCB 4114C	Microbial Systematics	4 hours
PCB 3301C	Aquatic Biology	4 hours
ZOO 3303C	Vertebrate Zoology	4 hours
ZOO 4203C	Invertebrate Zoology	4 hours

#### Group B

BOT 3800	Ethnobotany	3 hours
BOT 3820	Plants and Urban Envir	3 hours
BOT 4623C	Plant Geography & Ecology	4 hours
PCB 4683	Population Biol & Evolution	4 hours
PCB 3043L	Ecology Laboratory	1 hour
PCB 4302C	Limnology I	4 hours
PCB 4303C	Limnology II	4 hours
ZOO 4880C	Fisheries Management	4 hours



<b>Group C</b>		
BOT 4223C	Plant Anatomy	4 hours
BOT 4303C	Plant Kingdom	5 hours
BSC 4103	History of Biology	3 hours
PCB 3063L	Genetics Laboratory	1 hour
ZOO 3713C	Comp Vert. Anatomy	5 hours
ZOO 4603C	Embryology/Development	5 hours
ZOO 4753C	Vertebrate Histology	5 hours

<b>Group D</b>		
BCH 4053 <i>and</i> 4054	Biochemistry	6 hours
BOT 4503C	Plant Physiology	4 hours
MCB 4404	Microbial Metabolism	3 hours
PCB 3233	Immunology	3 hours
PCB 4723	Animal Physiology	4 hours

\*With the advisor's approval up to 8 credits from the following 5000-level courses may be taken to meet the restricted electives credit requirement: BOT 5495, BOT 5705, PCB 5044, PCB 5045, PCB 5046, PCB 5675, PCB 5721, ZOO 5456, ZOO 5463, ZOO 5475, ZOO 5483, ZOO 5745, ZOO 5815 or, with advisor's approval, up to 4 hours of special topics or Independent Study.

- |   |             |
|---|-------------|
| 4. Unrestricted electives may include 8 hours of Foreign Language and additional biology courses. | 12-20 hours |
| 5. Total Minimum Hours Required for B.S. in Biology   | 120 hours   |

### **Bachelor of Science: Biology**

- |  |             |
|--|-------------|
| 1. See University undergraduate degree requirements for GEP courses required outside major   | 27 hours    |
| 2. See special college and/or departmental requirements  | 0 hours     |
| 3. Required Departmental Core Curriculum   | 47-52 hours |
| A. Biology   | 21 hours    |
| B. Cognate Sciences  | 26-31 hours |
| 4. Restricted electives must include at least one upper division BOT and ZOO course and at least one Lecture or lecture/laboratory course from each of the four course groupings | 26 hours    |
| 5. Unrestricted electives may include 8 hours of Foreign Language and additional biology courses.  | 15-20 hours |
| 6. Total Minimum Hours Required for B.S. in Biology  | 120 hours   |

### **Bachelor of Science: Botany**

- |  |             |
|--|-------------|
| 1. See University undergraduate degree requirements for GEP courses required outside major   | 27 hours    |
| 2. See special college and/or departmental requirements  | 0 hours     |
| 3. Required Departmental Core Curriculum   | 47-52 hours |
| A. Biology   | 21 hours    |
| B. Cognate Sciences  | 26-31 hours |
| 4. Restricted electives must include at least one ZOO course and at least 17 hours of upper division Botany courses. Also, a minimum of one lecture or lecture/laboratory course from each of the four course groupings must be completed. | 26 hours    |
| 5. Unrestricted electives may include 8 hours of Foreign Language and additional biology courses.  | 15-20 hours |
| 6. Total Minimum Hours Required for B.S. in Botany   | 120 hours   |

### **Bachelor of Science: Limnology**

- |  |          |
|--|----------|
| 1. See University undergraduate degree requirements for GEP courses required outside major | 27 hours |
| 2. See special college and/or departmental requirements                                    | 0 hours  |

- |   |             |
|---|-------------|
| 3. Required Departmental Core Curriculum  | 47-52 hours |
| A. Biology  | 21 hours    |
| B. Cognate Sciences   | 28-31 hours |
| Limnology majors Must take CHM 3120C Analytical Chem,<br>CHM 2205 Intro to Organic & Biochem and <i>either</i> PHY 3053 <i>or</i><br>PHY 3048 and 3048L to satisfy their cognate sciences core. |             |
| 4. Restricted electives   | 28-29 hours |

**Group A**

8 hours

- |           |  |
|-----------|--|
| ZOO 3303C | Vertebrate Zoology<br>and one of the below courses |
| ZOO 4203C | Invertebrate Zoology                               |
| or        | or   |
| ENY 4004C | Entomology   |
| or        | or   |
| PCB 3301C | Aquatic Biology                                    |

**Group B**

12 hours

- |           |                      |
|-----------|----------------------|
| PCB 4302C | Limnology I          |
| PCB 4303C | Limnology II         |
| ZOO 4880C | Fisheries Management |

**Group C**

4-5 hours

- |           |               |
|-----------|---------------|
| BOT 4223C | Plant Anatomy |
| or        | or            |
| BOT 4303C | Plant Kingdom |

**Group D**

- |  |             |
|--|-------------|
| Any Course Listed  | 4 hours     |
| 5. Unrestricted electives may include 8 hours of Foreign<br>Language and additional biology courses. | 12-16 hours |
| 6. Total Minimum Hours Required for B.S. in Limnology  | 120 hours   |

## Bachelor of Science: Zoology

### Degree Requirements:

- |   |             |
|---|-------------|
| 1. See University Undergraduate Degree Requirements for<br>GEP courses required outside major   | 27 hours    |
| 2. See special college and/or departmental requirements   | 0 hours     |
| 3. Required Departmental Core Curriculum  | 47-52 hours |
| A. Biology  | 21 hours    |
| B. Cognate Sciences   | 26-31 hours |
| 4. Restricted electives   | 26-29 hours |
| Any BOT course from Group A, B, C, or D   | 3-5 hours   |
| PCB 3043L and PCB 3063L Ecology and Genetics Laboratories   | 2 hours     |
| Restricted electives to be selected from:<br>ZOO 3303C, ZOO 3713C, ZOO 4203C, ZOO 4603C, ENY 4004C, PCB<br>4723, and PCB 4683. or, with the advisor's approval, up to 8 hours of the<br>following 5000-level courses may be used to partially satisfy this require-<br>ment: ZOO 5456C, ZOO 5463C, ZOO 5475C, ZOO 5483C or ZOO 5815.<br>Total restricted electives chosen must include at least one lecture or<br>lecture/laboratory course from each of the four course groupings. | 21-22 hours |
| 5. Unrestricted electives may include 8 hours of Foreign<br>Language and additional biology courses.  | 12-20 hours |
| 6. Total Minimum Hours Required for a B.S. in Zoology   | 120 hours   |

## Bachelor of Science: Biology/Preprofessional

The Department of Biology does not offer a preprofessional degree and no such major exists. All students in the department are classified as Biology, Botany, Limnology or Zoology majors. However, many of our students plan to continue their education beyond the baccalaureate in a professional or graduate school. The below suggested curriculum is *not* a degree program but simply a composite suggestion as to how one might complete a degree in Biology while at the same time completing entrance requirements for professional



or graduate school. Note that the minimum cognate science requirements listed below are more rigorous than those listed earlier under Departmental requirements.

1. See University undergraduate degree requirements for  
GEP courses required outside major 27 hours
  2. See special college and/or departmental requirements  
All preprofessional students should complete SLS 2311, Overview  
of Selected Medical Careers, during their first semester at UCF. 1 hour
  3. Required Departmental Core Curriculum 51-56 hours
    - A. Biology 21 hours
    - B. Cognate Sciences 30-35 hours
- |                              |                                     |         |
|------------------------------|-------------------------------------|---------|
| CHM 2045, 2046, 2046L<br>and | Chem. Fund I and II with lab<br>and | 8 hours |
| CHM 3210, 3211, 3211L        | Organic Chem. I & II with lab       | 8 hours |
| PHY 3053, 3054C              | College Physics I & II              | 8 hours |
| or                           | or                                  |         |
| PHY 3048, 3048L              | Physics for Eng. & Sci.             | 8 hours |
| PHY 3049, 3049L              | with Lab                            |         |
| MAC 3233                     | Concepts of Calculus                | 3 hours |
| or                           | or                                  |         |
| MAC 3311, 3312               | Calc & Anal Geom I & II             | 8 hours |
| STA 3023                     | Statistical Methods                 | 3 hours |
4. Suggested Restricted Electives: The below courses are suggested as 28 hours  
being appropriate to various preprofessional students but actual selections  
should be carefully made in consultation with the students advisor while  
paying attention to the specific admission requirements of the particular  
professional school to which the student expects to apply.

#### Group A

MCB 3013C	General Microbiology	5 hours
-----------	----------------------	---------

#### Group B

BOT 3800	Ethnobotany	3 hours
----------	-------------	---------

#### Group C

PCB 3063L	Genetics Lab	1 hour
ZOO 3713C	Comp Vert. Anat.	5 hours
ZOO 4603C	Embryology/Development	5 hours
ZOO 4753C	Vertebrate Histology	5 hours

#### Group D

PCB 3233, PCB 3233L	Immunology	4 hours
PCB 4723	Animal Physiology	4 hours
BCH 4053 & 4054	Biochemistry	6 hours

5. Unrestricted Electives may include 8 hours of foreign language and 8-13 hours  
electives appropriate to particular professional subspecialty. Students should carefully  
select unrestricted electives with the assistance of their preprofessional advisor.

## CANADIAN STUDIES PROGRAM

Canadian Studies offers both a certificate and a minor but not a major. This program is interdisciplinary and includes courses from the departments of Criminal Justice and Legal Studies, English, Foreign Languages, History, Political Science, Sociology and Anthropology, and the College of Engineering. In addition, UCF is the site of the Florida-Canada Institute, a state program which offers other activities relating to Canada. For information consult Dr. Henry Kennedy, Director of Canadian Studies, at the Florida Canada Institute Center, (PC 542) Room 115, Social Work Module, (407) 823-2079.

## DEPARTMENT OF CHEMISTRY

**Chair:** H. Miles, CH 117, Phone (407) 823-2246

**Faculty:** Beck, Clausen, Cunningham, Elsheimer, Gupton, Hampton, Hertel, Juge, Kujawa (Geology), Madsen, Mattson, McCann, McGee (Forensic Science), Trefonas

The Department of Chemistry offers courses and programs which lead 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 may also lead to 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.

### MINOR

The Department of Chemistry offers a minor consisting of a minimum of 28 semester hours.

Required courses (20-22 semester hours): CHM 2045, 2046, 2046L, 3210, 3211, 3211L, and 3120C.

Restricted electives (6-8 semester hours minimum): At least one course must be selected from group I and the remaining from group I and/or II:

Group I: CHM 3212L, 4130C; BCH 4103L, CHS 3531, CHM 3411L, CHM 5451L

Group II: BCH 4053, 4054, CHM 3410, 3411, 4220, 4221, CHS 4110C, 4200, CHM 5235, 5250

To be eligible for a minor in Chemistry a student must have a GPA of at least 2.0 in all UCF Chemistry courses and an overall 2.0 GPA in all Chemistry courses used to satisfy this requirement. A minimum of 11 hours of Chemistry must be earned at UCF and no D grades from another institution will be accepted.

## Bachelor of Science: Chemistry

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. To be eligible for an undergraduate degree in Chemistry a student must have a GPA of at least 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 4932 and CHM 4912 will not be applied to determination of the Chemistry GPA. At least 15 Chemistry credits must be earned at UCF.

#### 4. Required Courses

CHM 2045, 2046	Chemistry Fundamentals I, II	7 hours
CHM 2046L	Chemistry Fundamentals Laboratory	1 hour
CHM 3210, 3211	Organic Chemistry I, II	6 hours
CHM 3211L, 3212L	Organic Laboratory Techniques I, II	4 hours
CHM 3120C	Analytical Chemistry	5 hours
CHM 3410, 3411	Physical Chemistry I, II	7 hours
CHM 3411L	Physical Chemistry Laboratory	2 hours
CHM 4610	Inorganic Chemistry	3 hours
CHM 4610L	Inorganic Chemistry Laboratory	2 hours
CHM 4130C	Advanced Analytical Laboratory Technique	4 hours
CHM 4912	Undergraduate Research	4 hours
CHM 4932	Chemistry Seminar	1 hour
ENC 3241	Technical Report Writing	3 hours
MAC 3311, 3312, 3313	Calculus with Analytic Geometry I, II, III	12 hours
PHY 3048, 3048L, 3049, 3049L	Physics for Engineers & Scientists	8 hours
STA 3023	Statistical Methods I	3 hours

#### 5. Restricted Electives

##### a. Biological Sciences (minimum of 7 hours)

BSC 2010C General Biology 4 hours

Approved electives restricted to those biology courses not listed as designed for non-majors. 3 hours

##### b. Minimum of 3 hours

COP 2500 Computer Science I 3 hours

COP 3200 Computer Programming 3 hours

CGS 3422 Programming and Numerical Methods 3 hours



c. Minimum of 3 hours			
PHY 3752C	Physics of Scientific Instruments		4 hours
CET 3123C	Microprocessor Electronics		3 hours
EEL 3341C	Introduction to Digital Circuits		3 hours
EEL 3342C	Intro to Digital Circuits and Systems		4 hours
d. Minimum of 6 hours			
BCH 4053	Biochemistry I		3 hours
BCH 4054	Biochemistry II		3 hours
CHM 4220	Advanced Organic Chemistry I		3 hours
CHM 5235	Applied Molecular Spectroscopy		3 hours
CHM 4221	Advanced Organic Chemistry II		3 hours
CHM 5580	Advanced Physical Chemistry		3 hours
CHM 5450	Polymer Chemistry		3 hours
CHS 5451	Polymer Chemistry Laboratory		2 hours
CHS 4110C	Nuclear and Radio Chemistry		3 hours
CHS 4200	Concepts in Industrial Chemistry		3 hours
	Total Semester Hours Required		128

## Forensic Science Program

**Director:** *W.W. McGee*, CH 221, Phone (407) 823-2788

Forensic Science is the profession which serves the scientific needs of the justice system. The program at UCF has been designed to provide the student with an educational background in the professional specialty of criminalistics.

The principal job of the forensic scientist is to scientifically 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 an investigation the forensic scientist presents his findings in court. The goal of the Forensic Science program is to prepare students for this demanding profession.

## Bachelor of Science: Forensic Science

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses

BSC 2010C	General Biology	4 hours
CHM 2045, 2046	Chemistry Fundamentals I, II	7 hours
CHM 2046L	Chemistry Fundamentals Laboratory	1 hour
CHM 3210, 3211	Organic Chemistry I, II	6 hours
CHM 3210L	Organic Laboratory Techniques I	2 hours
CHM 3120C	Analytical Chemistry	5 hours
CHS 3501	Introduction to Forensic Science	3 hours
CHS 3505	Forensic Microscopy	3 hours

## SCHOOL OF COMMUNICATION

**Director:** *J. Welke*, FA 534, Phone (407) 823-2681

**Faculty:** *Andersen, Arnold, J. Butler, Collachia, Collins, Davis, Fedler, Fowles, Grasty, Hall, Harpole, Hoglin, Hooper, Jeffery, Johnson, F., Johnson, M., Jones, Maunez-Cuadra, Meeske, O'Hara, O'Keefe, Pryor, Shearer, R. Smith, Tanzi, Taylor, Weider-Hatfield, Wycoff*

The School of Communication offers Bachelor Degree programs in five specific areas. Students have the option of selecting a specialized track for the Film or Journalism degree:

1. Bachelor of Arts: Interpersonal Communication
2. Bachelor of Arts: Journalism
  - A. News/Editorial Track
  - B. Advertising/Public Relations Track
3. Bachelor of Arts: Organizational Communication
4. Bachelor of Arts: Radio-Television
5. Bachelor of Arts: Motion Picture Technology
  - A. Production-Screenwriting
  - B. Animation



Any student contemplating graduate study should be aware of special requirements in some graduate schools, such as foreign languages, statistics, and computer sciences.

### **Limited Access**

All degree programs in the School of Communication have been designated as limited access beginning in the Fall, 1989. Limited access means there are additional admissions requirements over and above those set for general admission to the University. Students meeting the minimum requirements for admission will be admitted on a space available basis therefore, meeting the minimum GPA does not guarantee admission. Students will be assigned the category of Communication—pending prior to acceptance into the School. A minimum of 30 credit hours of college work is required before application for admission to a program. The Bachelor of Arts in Motion Picture Technology degree is a separate limited access program with other requirements.

### **School Admission Application**

Application for admission to the School of Communication must be made through the School office. Apply only **after** you have completed all requirements for admission. Deadlines are:

OCTOBER 12, 1992 for Spring, 1993

MARCH 8, 1993 for Summer, 1993

(See FILM note below)

JULY 12, 1993 for Fall, 1993.

NOTE: Applications for the Motion Picture Technology major are accepted only **ONCE PER YEAR**. Applications will be accepted **MARCH 8, 1993** for admission to the Fall, 1993.

### **Limited Access Requirements**

The requirements for admission consideration and continuation as a major in the School for all programs, except Motion Picture Technology [see special additional requirements for Radio-Television and both Journalism Tracks] are listed below.

1. An overall 2.25/4.00 grade point average based on a minimum of 30 credit hours of college work.
2. Demonstrated written proficiency in grammar, punctuation, and word usage. Testing is conducted prior to the start of each semester and remedial options are provided.
3. A maximum of three courses completed in the School prior to acceptance into the program may be counted toward the major including transfer courses in the major from another institution [total accepted: three courses]. NOTE: Some courses have a prerequisite requiring successful completion of the Grammar Proficiency Examination or Typing Proficiency Test. Internship credit is allowed for majors only.

### **Graduation Requirements**

1. A final 2.25/4.00 grade point average in all required courses for a major must be completed in order to graduate with a major in the School. NOTE: This grade point average does not include Restricted Electives in the major or other electives.
2. A maximum of 40 credit hours may be taken in the School of Communication.
3. Students electing both a major and minor in the School must take the minor courses in excess of the 120 hours required for graduation.
4. The Department requires that students initiate a request for a review of graduation requirements at the beginning of the anticipated term of graduation. Failure to file the request may delay graduation.

### **Transfer Limitation**

Generally, students may not substitute lower division courses taken at community colleges for upper division courses in the School of Communication (except Florida common numbered coursework). Students wishing to transfer courses from other colleges must apply for equivalency credit. College catalog, course syllabus, textbook used, or other supporting information must be provided by the student. The Divisions of the School of Communication will evaluate applications for equivalency. A maximum of three transfer courses or courses taken prior to School admission may be accepted in a School of Communication major [total accepted: three courses].



## MINORS

The School of Communication offers the following minors:

1. Interpersonal Communication  
COM 3011 (3), COM 3311 (3), SPC 3301 (3), SPC 4330 (3), SPC 4350 (3), SPC 4540 (3).
2. Journalism: News/Editorial Track  
JOU 3004 or JOU 4602 (3), JOU 3100<sup>1,2</sup> (3), MMC 4200 (3), plus TWO JOU elective (writing and/or editing) courses<sup>1,2</sup> (6).
3. Journalism: Advertising/Public Relations Track  
ADV 4000 (3), ADV 4003 (3), ADV 4101 (3), ADV/PUR 4941 or PUR 4800 (3), PUR 4000 (3).
4. Organizational Communication  
COM 3110 (3), COM 3120 (3), COM 3311 (3), SPC 3425 (3), SPC 3445 (3), SPC 4440 (3).
5. Radio-Television  
RTV 3000 (3), RTV 3200 (4), RTV 3300<sup>1,2</sup> or RTV 3501<sup>1,2</sup> (4), RTV 4700 or RTV 4403 (3).

<sup>1</sup>Prerequisite Grammar Proficiency Examination required.

<sup>2</sup>Prerequisite Typing Proficiency Test required.

## Bachelor of Arts: Interpersonal Communication

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or School requirements.
3. Required Courses

COM 3011	Communication and Human Relations	3 hours
COM 3311	Communication as a Behavioral Science	3 hours
SPC 3301	Interpersonal Communication	3 hours
SPC 3425	Group Interaction and Decision Making	3 hours
SPC 3601	Advanced Public Speaking	3 hours
SPC 3511	Argumentation and Debate	3 hours
SPC 4330	Nonverbal Communication	3 hours
SPC 4350	Studies in Listening	3 hours
SPC 4540	Attitudes and Communication	3 hours
SPC 4440	Group Dynamics	3 hours

4. Restricted Electives  
Six credit hours in the School of Communication
5. Electives  
A minimum of 9 upper division credit hours in one department outside the School of Communication.

Total Semester Hours Required

120

A maximum of 3 credit hours of internship may be earned in one semester. A total of 6 may be earned within the 120 credit hours required for graduation. Students should check with their advisor for prerequisites and other requirements.

## Bachelor of Arts: Journalism

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or School requirements. In addition, all students planning a major in both journalism tracks must pass the Typing Proficiency Test (20 wpm) **prior** to admission to the major. The typing test may be taken **ONLY** three (3) times and not twice in one semester. Students should see their advisor for details.
3. Required Courses  
Students must select and complete one of the areas of specialization listed below.
4. Restricted Electives (See Area of Specialization)
5. Electives (See Area of Specialization)

## AREAS OF SPECIALIZATION

### 1. Required Courses: News-Editorial Track

JOU 3004	History of American Journalism	3 hours
JOU 3100 <sup>1</sup>	News Reporting	3 hours
JOU 3101 <sup>1</sup>	Advanced News Reporting	3 hours
JOU 3200 <sup>1</sup>	Editing I	3 hours
JOU 3201 <sup>1</sup>	Editing II	3 hours
JOU 4104 <sup>1</sup>	Public Affairs Reporting	3 hours
JOU 4300 <sup>1</sup>	Feature Writing	3 hours
MMC 4200	Mass Communication Law	3 hours
MMC 4602	Contemporary Media Issues	3 hours
PGY 3610	Photojournalism I	3 hours
Restricted Electives		
JOU/PGY	Elective	3 hours

<sup>1</sup>Prerequisite Grammar Proficiency Examination and Typing Proficiency Test required. Some courses may also require a minimum grade of "C" in prerequisite courses.

The Journalism faculty strongly recommends that News-Editorial majors work for the student newspaper, *The Central Florida Future*. In addition, News-Editorial majors may obtain 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 credit hours may be earned in one semester, with a total of 3 within the 120 required for graduation. Students should consult with their adviser for prerequisites and other requirements.

**Required Minor:** News-Editorial majors must complete a minor in an academic area outside of the School of Communication or complete a 15-credit hour area of concentration approved by the Faculty.

### 2. Required Courses: Advertising/Public Relations Track

ADV 4000	Principles of Advertising	3 hours
ADV 4003	Advertising Layout and Copywriting	3 hours
ADV 4101 <sup>1</sup>	Advertising Copy and Campaigns	3 hours
ADV 4103	Radio-TV Advertising	3 hours
COM 3110	Business and Professional Speaking	3 hours
COM 3311	Communication as a Behavioral Science	3 hours
MMC 4200	Mass Communication Law	3 hours
PGY 3610	Photojournalism I	3 hours
PUR 3100 <sup>1</sup>	Writing for Public Relations	3 hours
PUR 4000	Public Relations	3 hours
PUR 4941	Internship	3 hours
	or	
ADV 4941	Internship	3 hours
	or	
PUR 4800	Public Relations Campaigns	3 hours

<sup>1</sup>Prerequisite Grammar Proficiency Examination and Typing Test required.

A maximum of 6 credit hours of internship may be earned in one semester. A total of 9 credit hours of internship may be earned within the 120 credit hours required for graduation. Students should consult with their adviser for prerequisites and other requirements.

## Bachelor of Arts: Organizational Communication

### Degree Requirements

1. See Undergraduate Degree Requirements

2. See special college and/or school requirements.

### 3. Required Courses (27 credit hours)

COM 3011	Communication and Human Relations	3 hours
COM 3110	Business and Professional Speaking	3 hours
COM 3120	Organizational Communication	3 hours



COM 3311	Communication as a Behavioral Science	3 hours
COM 4941	Internship	3-6 hours
PUR 4000	Principles of Public Relations	
	or	3 hours
ADV 4000	Principles of Advertising	
SPC 3425	Group Interaction and Decision Making	3 hours
SPC 3445	Leadership	3 hours
SPC 4440	Group Dynamics	3 hours

4. Restricted Electives

Six (6) to Nine (9) credit hours in the School of Communication

5. Electives

A minimum of 9 upper-division credit hours in one department outside the School of Communication.

Total Semester Hours Required

120

A maximum of three (3) credit hours of internship may be earned in one semester. A total of six (6) credit hours of internship may be earned within the 120 credit hours required for graduation. Students should consult with their adviser for prerequisites and other requirements.

## Bachelor of Arts: Radio-Television

### Degree Requirements

1. See Undergraduate Degree Requirements

2. See Special college and/or School requirements. In addition, all students planning a major in radio-television must pass the Typing Proficiency Test (20 wpm) **prior** to admission to the major. The typing test may be taken **ONLY** three (3) times and not twice in one semester. Students should see their advisor for details.

3. Required Courses

RTV 3000	Foundations of Broadcasting	3 hours
RTV 3200	Broadcast Techniques	4 hours
RTV 3210	Radio Production	
	or	4 hours
RTV 3260	Electronic Field Production	
RTV 3300 <sup>1</sup>	Broadcast Newswriting	4 hours
RTV 3501 <sup>1</sup>	Broadcast Copywriting	4 hours
RTV 4403	Radio/Television and Society	3 hours
RTV 4700	Broadcast Regulations	3 hours
RTV 4800	Broadcast Management	3 hours

4. Restricted Electives

Six credit hours in the School of Communication

5. Electives

Total Semester Hours Required

120

Students are encouraged to work with WUCF radio to gain practical experience. In addition, students should arrange for an internship off campus in a professional broadcast, production, or corporate operation. 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. A maximum of 3 credit hours of internship may be counted as a Restricted Elective. Summer internships are available during "C" term only. Students should consult with their advisor for prerequisites and other requirements.

<sup>1</sup>Prerequisite Grammar Proficiency Examination and Typing Proficiency Test required.

## Bachelor of Arts: Motion Picture Technology

### Limited Access

Access to this program is based on a selective set of requirements which differ from other School of Communication majors. Students meeting the minimum requirements for admission will be admitted on a space available basis. The basic requirements for admission consideration to the Motion Picture Technology program are:

1. An overall 3.0 grade point average based on a minimum of 45 credit hours of college work
2. Submission of a written essay
3. Students are required to demonstrate written proficiency in grammar, punctuation and word usage before admission. Testing is conducted prior to the start of each semester.
4. A portfolio or additional information should be submitted
5. A maximum of three courses in film completed prior to acceptance into the program may be counted toward the major.

**NOTE:** Applications are accepted ONLY once per year. See paragraph on *School Admission Application*.

### Graduation Requirements

Students will be required to continue to meet the following minimum standards after acceptance into the Motion Picture Technology program.

1. An overall 3.0 grade point average.
2. Juried retention by a faculty committee will be considered when the student has completed ninety (90) credit hours of coursework.

### Degree Requirements

1. University graduation requirements
2. Special College and/or School requirements
3. Required Courses: Students must select and complete one of the areas of specialization listed below.
4. Restricted Electives (See Area of Specialization)
5. Electives

### Areas of Specialization

1. Required Courses: General Production/Screenwriting	(27 credit hours)
FIL 3100 <sup>1</sup> Writing for the Screen <b>or</b>	3 hours
CRW 3410 Writing Scripts	
FIL 3200 Beginning Film Production	3 hours
FIL 3300 Documentary Film	3 hours
FIL 3400 History of the Motion Picture <b>or</b>	3 hours
THE 3251 History of the Motion Picture	
FIL 3503 Film Theory	3 hours
FIL 4201 Advanced Film Production	3 hours
FIL 4600 The Film Producer	3 hours
FIL 4601 Production Management	3 hours
FIL 4209 Art Direction	3 hours
Restricted Sequence Electives: Six (6) credit hours FIL courses.	
Total Semester Hours Required	120
2. Required Courses: Animation	(27 credit hours)
FIL 3100 Writing for the Screen <b>or</b>	3 hours
CRW 3410 Writing Scripts	
FIL 3200 Beginning Film Production	3 hours
FIL 3242 Film Design	3 hours
FIL 3400 History of the Motion Picture <b>or</b>	3 hours
THE 3251 History of the Motion Picture	
FIL 3410 History of Animated Films	3 hours
FIL 4201 Advanced Film Production	3 hours
FIL 4230 Film Graphics Animation	3 hours
FIL 4231 Computer Animation	3 hours
FIL 4942 Animation Workshop	3 hours
Restricted Sequence Electives: Six (6) credit hours FIL courses.	
Total Semester Hours Required	120

A maximum of three (3) credit hours of internship may be earned in one semester. A total of six (6) may be earned within the 120 credit hours required for graduation. Check with your adviser for prerequisites and other requirements.

<sup>1</sup>Prerequisite Grammar Proficiency Examination required.



# COMMUNITY ARTS PROGRAM

The William S. and Alice M. Jenkins Endowed Chair,

Director: K. Congdon, ART 105B, Phone (407) 823-2195.

## Minor in Community Arts

A minor, but not a major, in Community Arts is offered for the student who is majoring in Art, Music, Theatre, or English (with a Creative Writing focus), and is interested in helping make the arts more democratic and accessible to everyone. Students minoring in Community Arts conduct studies in culture-based aesthetics, multi-cultural education; art and politics; art and economics; art and mental health; issues regarding ethnicity, class, age and occupation; program development; and the functions and purposes of art establishments in our society.

### Requirements:

ARE 3662	Community Arts I	3 hours
ARE 3944	Community Arts Practicum	3 hours

Take two of the following:

1. ARE 3663 Community Arts II
  2. ARE 3550 Introduction to Art Therapy
  3. ARE 3554 Art Therapy Methods
  4. ARH 3820 Visual Arts Administration
  5. ARH 4821 Methods in Arts Administration
  6. ENC 3501 Journal-Writing Practicum
  7. Approved courses in Anthropology, Education, Social Work, Sociology, or Psychology.
  8. Other Community Arts Classes
- |             |                           |         |
|-------------|---------------------------|---------|
| ARE 4945    | Community Arts Internship | 6 hours |
| Total Hours |                           | 18      |

## Certificate in Community Arts

The Community Arts Program also offers a certificate in Community Arts for undergraduate and post-baccalaureate students for majors in: Art, English, Music and Theatre **and** majors in: Business, Education, Health Sciences, Liberal Studies, Psychology, Social Work and Sociology (who have at least 12 hours in one of these areas: Art, Creative Writing, Music or Theatre).

### Requirements:

ARE 3662	Community Arts I	3 hours
ARE 3944	Community Arts Practicum	3 hours

Take two of the following:

		6 hours
--	--	---------

1. ARE 3663 Community Arts II
  2. ARE 3550 Intro. to Art Therapy
  3. ARE 3554 Art Therapy Methods
  4. ARH 3820 Visual Arts Administration
  5. ARH 4821 Methods in Arts Administration
  6. Women and Art in Twentieth Century America
  7. ENC 3501 Journal-Writing Practicum
  8. 1 to 2 approved courses in education or a related field
  9. Other Community Art Classes
- |             |                           |         |
|-------------|---------------------------|---------|
| ARE 4945    | Community Arts Internship | 6 hours |
| Total hours |                           | 18      |

For undergraduate students, the certificate is granted at the time of graduation. Some courses may be taken on the graduate level for the post-baccalaureate student.



## DEPARTMENT OF COMPUTER SCIENCE

**Interim Chair:** *T. Frederick*, CCII 205, Phone (407) 823-2341

**Faculty:** *Bassiouni, Brigham, Chandreseharan, Chen, Cottrell, Deo, Driscoll, Dutton, Frederick, Gerber, Gomez, Guha, Hua, Hughes, Lang, Leeson, Lindholm, Moshell, Mukherjee, Orooji, Riggs, Shah, Vempaty, Vemulapati, Workman.*

The Department of Computer Science 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 Department offers a Computer Science minor for Business Majors, and a general minor in Computer Science.

Computer Science strives to meet the computer personnel needs of the scientific, business, and industrial community by producing graduates with a broad base of formal courses as well as a concentration in selected areas. In addition, the Department conducts research in programming systems/languages, information systems, computer architecture, computational methods, and other areas.

The Department requires that students initiate a request for a review of graduation requirements at the beginning of the anticipated term of graduation. Failure to file the request may delay graduation.

### Research Equipment

The Department of Computer Science provides an environment that supports laboratories for the wide variety of research projects carried out by its faculty and students. The hardware infrastructure includes an Ethernet local area network and several large servers, consisting of a Sun 3/280 (to be upgraded to a SparcServer 490), a Harris HCX-9, a VAX 11/780, over eighty terminals, fourteen dialup modems, and a collection of Macintoshes and PC's. Numerous Sun-3 and Sun-4 (Sparc) workstations, a NeXT computer, and a Silicon Graphics Personal Iris are available for research and graduate instruction in computer graphics and image processing. A Hewlett-Packard HP9000 supports graphics research and microprocessor design through its 65000 emulation subsystem. The Center for Parallel Computation houses a BBN Butterfly GP1000 parallel processing computer with 16 processors and a total of 64 Megabytes of memory. The Visual Systems Laboratory contains an Evans and Sutherland ESIG 500 real time image generator, three Silicon Graphics Iris workstations, two Sun SparcStations, a Sun 386i, a NeXT computer, nine transputers, and numerous Macintoshes and PC's. The Intelligent Systems Laboratory provides a Symbolics 3653 LISP machine with three workstations. All major systems run the UNIX operating system. Standard languages such as Ada, C, C++, Concurrent C, FORTRAN, Lisp, Pascal and Prolog are supported. All of the department's computers are interconnected by Ethernet and linked to the outside world via SURAnet (the Southeast Regional component of NSFnet), affording real-time Internet access to research systems off-campus.

### Computer Center

The Computer Center maintains and operates equipment used for both instruction and research, including an IBM 4381 Group 2 with 32 Megabytes of memory and 10 Gigabytes of disk storage, running the VM/CMS operating system. Over 150 IBM 3178, 3278, and 3279 terminals are used to access the mainframe. Additionally, over 400 IBM PS/2's, PC's, XT's, and AT's interconnected by a Novell network are available for student and faculty use. Separate faculty facilities exist. A Macintosh lab with Macintosh II's and assorted peripherals is also available.

### Super Computations Research Institute

The Florida Information Resource Network (FIRN) provides additional mainframe resources including the CRAY Y-MP supercomputer for scientific research. Thirty-five percent of the supercomputer's time is open to any Florida university researcher whose project is approved by the Supercomputer Computations Research Institute.

### MINORS

The Department of Computer Science offers the following minors consisting of a minimum of 18 semester hours in each minor. A minimum GPA of 2.00 is required in all courses used to satisfy the requirements for the minor in computer science, and at least three courses must be taken from the UCF Department of Computer Science.





1. Computer Science Minor for Business Majors  
 Required courses (15 hours): CGS 3000, 3100, 3262, 3300, COP 3120.  
 Restricted electives (3 hours minimum): ACG 3401, ACG 5346, CIS 4321, COP 2500, 2501, 3200, 3400, 4710, ECO 4412, FIN 3453, MAC 3233, 3311, 3312, 3313, MAN 4722, 4724, MAR 3613, MAS 3113, STA 4102, 4163.
2. General Computer Science Minor  
 Required courses (12 hours): COP 2500, 2501, 3400, 3530.  
 Restricted electives (6 hours minimum): COP 3402, 4020, 4124, 4600, 4710, COT 3100, 4500.

## Bachelor of Science: Computer Science

### Degree Requirements

1. A four-semester-hour Biology course with a laboratory is required, and this requirement is to be satisfied by BSC 1020C, BSC 1030C or BSC 2010C.
2. GPA Requirements
  - a. A minimum GPA of 2.0 in all course work;
  - b. A minimum grade of "C" in each required course (these courses are those in Section 4 below);
  - c. A minimum GPA of 2.5 in upper division required courses (these courses are listed in section 4.11 below). Only the highest grade for a course is used in determining this GPA requirement.
3. Departmental Residency Requirement: At least eighteen semester hours of regularly scheduled 4000- and 5000-level courses must be taken from the UCF Computer Science Department.
4. Required courses:
  - I. COMPUTER SCIENCE CORE: 42 hours
  - Computer Science Courses
  - COP 2500                      Computer Science I                      3 hours
  - COP 2501                      Computer Science II                      3 hours
  - COP 3400                      Assembly Language                      3 hours
  - COP 3402                      Computer Systems Concepts/Programming                      3 hours

COT 3100	Introduction to Discrete Structures	3 hours
COP 3530	Computer Science III	3 hours
Support Courses		
MAC 3311	Calculus with Analytic Geometry I	4 hours
MAC 3312	Calculus with Analytic Geometry II	4 hours
STA 3023	Statistical Methods I	3 hours
PHY 3048	Physics for Engineers & Scientists I	3 hours
PHY 3049	Physics for Engineers & Scientists II	3 hours
PHY 3049L	Physics for Engineers & Scientists Lab. II	1 hour
EEL 3341C	Introduction to Digital Circuits	3 hours
ENC 3241	Technical Report Writing	3 hours
II. UPPER DIVISION REQUIRED COURSES:		12 hours
CDA 4150	Introduction to Computer Architecture	3 hours
COT 4210	Discrete Computational Structures	3 hours
COP 4020	Programming Languages I	3 hours
COP 4600	Programming Systems	3 hours
III. RESTRICTED ELECTIVES		16 hours
a. At least ten hours of computer science courses, of which at most four hours can be independent study.		
b. At least four hours of mathematics and/or statistics for majors of the respective departments exclusive of independent study.		
Course work must be selected from 4000- and 5000-level courses in computer science, mathematics and/or statistics and the following courses: MAC 3313, MHF 3104, ACG 2023, MAN 3025, MAP 3302, MAR 3023, FIN 3403, MAN 3301, EEL 4701C, MAS 3105 or 3106		
5. Electives	Total Semester Hours Required	120

## Bachelor of Arts: Economics

Contact Person: J. Boyte, FA 208, Phone (407) 823-2492

The Bachelor of Arts in Economics is designed to provide students with a liberal arts background to serve as 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.

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required courses
 

ECO 2013	Principles of Economics I	3 hours
ECO 2023	Principles of Economics II	3 hours
ECO 3101	Intermediate Price Theory	3 hours
ECO 3203	Aggregate Economic Conditions Analysis	3 hours
ECO 3411	Quantitative Methods and Business Decision Analysis	3 hours
4. Restricted Electives
  - a. Select Six Courses:
 

ECO 3703	International Economics	3 hours
ECO 3930	Independent Study	3 hours
ECO 4224	Money: Issues and Analysis	3 hours
ECO 4303	History of Economic Thought	3 hours
ECO 4412	Economic Statistics and Econometrics	3 hours
ECO 4504	Economics of the Public Sector	3 hours
ECP 3203	Contemporary Labor Economics	3 hours
ECP 3424	The Economics of Regulated Industries	3 hours
ECP 3433	Transportation Economics	3 hours
ECP 4403	Business, Government & Industrial Organization	3 hours
ECP 4603	Urban and Regional Economic Problems	3 hours



ECP 4703	Managerial Economics	3 hours
ECS 4003	Comparative Economic Systems	3 hours
ECS 4013	Economic Development	3 hours

- b. Twenty-seven hours of additional courses, including the completion of a minor from one of the following areas: Computer Science, Mathematics, Statistics, or the Social and Behavioral Sciences.

5. Electives

Total Semester Hours Required

120

## DEPARTMENT OF ENGLISH

**Chair:** J. Schell, FA 452, Phone (407) 823-2212

**Faculty:** Adicks, Astro, Barnes, Becker, Bell, Brain, Deane, Donnelly, Flammia, George, Haile, Hemschemeyer, Higgins-Young, Jaffe, Jones, Keller, Murray, Omans, Price, Regier, Rushin, Schiffforst, Seidel, Smith, Sommer, Stap, Strasshofer, Umphrey, Wyatt

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* and *The Cypress Dome*.

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.

Only courses with a grade of "C" or better may be applied to the English Major and Minor.

### MINOR

The Department of English offers the following minors:

**Creative Writing Minor:** 21 semester hours. Required courses: CRW 3000, CRW 2100 or CRW 2300, CRW 3010, CRW 3011. 9 remaining hours to be chosen from CRW 3410, CRW 4940, CRW 4041, CRW 3310, CRW 3410.

**Literature Minor:** 21 semester hours with no fewer than 12 completed at UCF. Requirements: 12 semester hours selected from ENL 3031, ENL 3051, AML 3031, AML 3051, LIT 3110, 3120. 9 additional semester hours of English courses chosen by the student and advisor.

**Linguistics Minor:** 18 semester hours. Required courses: LIN 3010, LIN 4100, LIN 4341. 9 remaining hours to be chosen from LIN 4202, LIN 4612, LIN 4801, LIN 4660, LIN 5137, ANT 3610, PHI 4220, or any course approved by the Linguistics Committee.

**Technical Writing and Editing Minor:** 22 semester hours, as follows: ENC 2290, 3210 or 3241, 3310, 3311 or 3341, 3311, 4215, 4293, 4294, 4295. Students completing the minor may intern with a Central Florida corporation.

## Bachelor of Arts: English

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special College and/or department requirements
3. Required courses

Foundation (for all concentrations)

Choose two of the following three:

LIT 3000	Introduction to Literary Interpretation	3 hours
CRW 2000	Introduction to Creative Writing	3 hours
ENC 3211	Introduction to Technical Writing	3 hours

Choose three of the following four:

ENL 3010	English Literature I	3 hours
ENL 3051	English Literature II	3 hours
AML 3031	American Literature I	3 hours
AML 3051	American Literature II	3 hours

4. Restricted Electives

(See Literature, Creative Writing, Technical Writing, and Linguistic concentrations below.)

5. Electives

To be selected primarily from upper level courses with advisor's approval.

Total Semester Hours Required

120

**CONCENTRATIONS**

**1. Literature**

Required (9 hours)

ENL 4311	Chaucer	
or		
ENL 4341	Milton	3 hours
or		
ENL 4330	Shakespeare	
LIN 4100	History of the English Language	
or		
LIN 3010	Introduction to Linguistics	3 hours

Choose 12 hours from the 3000 or 4000 level courses offered under AML, ENL, and LIT prefixes.

**2. Creative Writing**

Choose Two (6 hours)

CRW 3100	Fiction Writing
CRW 3300	Poetry Writing
ENC 3310	Magazine Writing
CRW 3410	Script Writing

Choose Two (6 hours)

CRW 4120	Advanced Fiction Writing Workshop
CRW 4320	Advanced Poetry Writing Workshop
CRW 4410	Advanced Script Writing Workshop

Choose One (3 hours)

CRW 3310	Structure of Verse
CRW 4172	History of Prose Style
CRW 3008	Literary Magazines

Choose Two (6 hours)

ENL 4311	Chaucer
ENL 4330	Shakespeare
ENL 4341	Milton and His Age
LIN 4100	History of the English Language
LIN 4341	Modern English Grammar

**3. Technical Writing**

Required (Basic) (4 hours)

ENC 2290	Careers in Writing	1 hour
ENC 3311	Advanced Expository Writing	3 hours

Required (Advanced) (21 hours)

ENC 4293	Technical Documentation I	3 hours
ENC 4294	Technical Documentation II	3 hours
ENC 4295	Technical Documentation III	3 hours
ENC 4215	Techniques of Technical Publication	3 hours
LIT 4433	Survey of Technical and Scientific Literature	3 hours
ENC 4218	Graphics Capabilities	3 hours
ENC 4280	Technical Vocabulary	3 hours

Choose One (3 hours)

ENC 3330	Rhetoric and Organization	3 hours
ENC 3283	Science and the Lay Reader	3 hours
ENC 4254	Technical Writing and the Uses of Imagination	3 hours

Optional

ENC 4941	Technical Writing and Editing Internship	3 hours
----------	--	---------

**Honors In English**

**Requirements:**

- 1) Application and admission through the English Honors Coordinator;
- 2) Fulfill University requirements for Honors in the Major;



- 3) Grade of "B" or better in Honors Seminar (3 hours), Bibliography and Research Methods (1 hour), one 5000 level English elective (3 hours), and Directed Readings (3 hours). (Honors Seminar and Directed Readings substitute for one restricted elective and one English core course);
- 4) Successful completion and oral defense of honors thesis.

## DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURES

**Acting Chair:** *P. Crant*, FA 443, Phone (407) 823-2469

**Faculty:** *Barsch, Cervone, Crant, Decker, Del-Rio, DiPierro, Fernandez, Micarelli, Patrone, Payas, Redmon, Taylor*

Language studies in the College of Arts and Sciences provide instruction in Chinese, French, German, Hebrew, Italian, Japanese, Latin, Russian, and Spanish, with majors in French and Spanish. 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 1000, 2000, and certain 3000-level courses are required to attend the language laboratory for at least one hour a week.

Students wishing 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. They must complete 30 semester hours in the chosen language at the 3000 level or above.

**ADVICE:** Because of the various options opened to language majors, it is obligatory that they have an adviser. Students must go to the Foreign Languages & Literatures Office to be assigned an adviser as soon as possible since class schedules must be approved by their adviser each semester. Failure to fulfill this obligation could result in delaying graduation.

Normal placement is as follows: Four years of one high school language would place the student in the first semester of the third year; three years, in the second semester of the second year; two years in the first semester of the second year; one year in the second semester of the first year.

A native or near-native speaker language major must substitute an alternate upper-division Spanish and French course for the conversation course (3241 (SPN) - 3244 (FRE)). Also, a native or near-native French speaker must substitute an alternate upper-division French course for FRE 4780 (French Phonetics and Diction) or FRE 3955 (Corrective Phonetics & Vocabulary Building). In cases where native speakers have received advanced education abroad, they will not be permitted to take the composition course (3420) for the fulfillment of their major requirements but must substitute a literature course chosen in consultation with an advisor in the department.

Language Credit by Examination will not be given in courses lower in level than these in which students are presently enrolled. Native speakers will be allowed Credit by Examination only in literature courses.

Foreign Language State Teacher Certification may be obtained through the Department of Foreign Languages. The Certificate qualifies students to teach foreign languages at the elementary and/or high school levels.

### MINORS

The Department of Foreign Languages offers a minor consisting of 18 semester hours in French, German, Italian, Russian, or Spanish.

Required courses: 18 semester hours at the 3000 level or above in one language including the courses numbered 3241 (SPN), 3244 (FRE), 3240 (GER), and 3420.

### PLACEMENT AND PROFICIENCY

In colleges or departments where a Foreign Language Proficiency Requirement exists, it can be met for the B.S. degree by passing the proficiency exam, or by completing the foreign language 1121 course; the B.A. degree requirement can be satisfied by passing the proficiency exam or by completing the third semester of a foreign language.

The following is a list of courses students can take to satisfy the proficiency-level foreign language requirement:

F.L. 1120. This course is designed for students taking the foreign language for the first time. Students who have had one year or more of that foreign language within two years prior to admission are excluded from this course; students receiving an "S" in F.L. 1118 are also excluded.



F.L. 1121. This course is designed to finalize the proficiency requirement for the B.S. and to prepare for entry into F.L. 2200. *Admission requirement:* an "S" in 1118, or a grade of "C" in F.L. 1120, or passing the placement exam. Students entering the course by passing the placement/credit-by-exam and receiving a "C" or better in the course may receive back credit for graduation (4 credits for 1120). Back credit for F.L. 1120 is excluded for those students entering this course with the "S" grade in F.L. 1118.

A third semester course is designed to complete the B.A. degree foreign language proficiency requirement: admission—successful placement/credit-by-exam; a grade of "C" or better in F.L. 1121. The student who enters this course by the placement/credit-by-exam and receives a "C" or above in the course may receive back credit for graduation for F.L. 1121.

All students may elect to satisfy the proficiency-level F.L. requirement at any time during the course; if successful they may elect to withdraw from the course without receiving credit towards graduation, even though they will have satisfied the Foreign Language Proficiency requirement.

## Bachelor of Arts: French or Spanish

**Degree Requirements:** all at 3000 level or above, at least a "C" average, at least 2 courses at 4000 level

Conversation	3 hours
Composition	3 hours
Survey of Literature*	6 hours
Two of the following Linguistics courses**	6 hours
French Corrective Phonetics and Diction	(3 hours)
French Phonetics and Diction	(3 hours)
Romance Philology	(3 hours)
Spanish Diction and Syntax	(3 hours)
Modern Spanish Morphosyntax	(3 hours)
Spanish American Syntax	(3 hours)
Foreign Language Electives	
At least 2 courses in literature beyond the survey level.	12 hours
<b>Total</b>	<b>30 hours***</b>

\* Spanish majors must take both semesters of the Survey of Spanish Literature or both semesters of the Survey of Latin American Literature.

\*\* French and Spanish majors must include at least one Linguistics course in the language of their major.

\*\*\* Not more than six hours out of the 30 required may be taken in Foreign Language courses not taught in the target language.

## Bachelor of Arts: Foreign Language Combination

### Degree Requirements

A student may receive a BA degree in a Foreign Language Combination by completing with a grade of C or better 24 credits in a first language and 15 in a second. These credits must be in courses at the 3000 level or above. 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 or Russian.

In the first language, the following courses must be taken as part of the required 24 credit hours:

Conversation	3 hours
Composition	3 hours
Survey of Literature*	6 hours
One Foreign Language Linguistics course**	
(as approved by advisor)	3 hours
Language Electives	9 hours
(at least 2 courses at 4000 level)	
<b>Total</b>	<b>24 hours</b>



\* If Spanish is the first language, two semesters of the Survey of Spanish Literature or two semesters of the Survey of Latin American Literature must be taken.

In the second language, the following courses must be taken as part of the 15 required credits:

Conversation	3 hours
Composition	3 hours
Language Electives (chosen with advisor)	9 hours
Total	15 hours

### SUMMER STUDY ABROAD PROGRAMS

The Department of Foreign Languages has been offering a Summer Study program in Spain since 1972, in Italy since 1975, and one in France since 1981. These programs are approved by the Board of Regents and are expected to be offered annually. Credit bearing courses are available in these programs in language (all levels), art, and civilization of France, Italy, or Spain. These programs are open to all students of the State University System of Florida.

#### Jena, Germany

Courses in German language and civilization are offered at all levels. Students are housed at the Jena University campus and have an opportunity to visit other cities of importance in Germany.

#### St. Petersburg, Russia

This program is offered in cooperation with the Hertzen Pedagogical Institute of St. Petersburg. Courses in Russian art and language and civilization are offered at all levels. Visits to points of historical and cultural interest in St. Petersburg and Moscow will be made.

#### Madrid, Spain

This program is intended for students who wish to begin or continue their study of Spanish language and civilization. Language courses will be offered from the beginning level to the advanced. Business Spanish, Art of Spain and Contemporary Spanish history will also be offered. In addition, students will have an opportunity to visit major points of cultural and artistic interest of Spain.

#### 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.

#### Jonquière, Quebec

Jonquière is a clean and modern city of 60,000 in the picturesque Lac Saint-Jean region, about 150 miles north of Québec City. Students live with French-speaking families, receive 6 hrs. of classroom instruction in French each weekday, and pledge to use French only at all times during the program. Participants earn 8 credits. Educational week-end excursions and a number of socio-cultural activities are included. The program takes place during Summer A.

### AREA OF SPECIALIZATION

1. **Latin American Studies.** The minor in Latin American Area Studies offers a broad interdisciplinary approach to the understanding of Latin America and its peoples. The minor requires the completion of 18 semester hours selected from courses listed in the General Latin American Foundation Areas. In addition, students must complete the introductory language sequence (or its equivalent) in French or Spanish. For information, consult Professor Jose B. Fernandez, FA 551, (407) 823-2224.
2. **Russian Area Studies.** The College of Arts and Sciences offers an academic minor in Russian Area Studies. Five UCF departments, Foreign Languages, History, Political Science, Sociology, and Philosophy and Humanities, have pooled their resources in order to offer students a multidisciplinary approach so as to understand linguistic,

cultural, historical, political, and socio-economic interrelationships. Interested students should register for the minor with Dr. Barsch, (407) 823-2472.

## DEPARTMENT OF HISTORY

**Acting Chair:** *Richard C. Crepeau*, FA 551-B, Phone (407) 823-2224

**Faculty:** *Colbourn, Evans, Fernandez, Fetscher, Greenhaw, Kallina, Leckie, Pauley, Shofner, Wehr*

Students majoring in history must complete a minimum of 36 hours in history courses. At least 6 hours must be selected from each of three different geographical areas, such as: United States, Europe, Asia, or Latin America. Grades of "D" or below may not be counted toward the major.

History majors who are interested in a pre-law program should work closely with their 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, and philosophy. Such a course of study will prepare them for success in law school and will concomitantly provide a broad liberal education.

The Department participates in the programs in Women's Studies, American Studies, Afro-American Studies, and Canadian Studies.

Latin American Studies: The History Department participates in the Latin American Studies program. Consult Dr. Jose B. Fernandez for information.

### MINOR

The Department of History offers a minor consisting of a minimum of 18 semester hours.

Required courses: 18 semester hours of history, twelve of which must be at the 3000-4000 level. Specific courses must be selected in conference with a departmental advisor.

## Bachelor of Arts: History

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses  
None
4. Restricted Electives  
None
5. Electives

To be selected with approval of the student's advisor

Total Semester Hours Required

120

### AREA OF SPECIALIZATION

1. Soviet Area Studies. The History Department participates in the Soviet Area Program. For information consult with Dr. John Evans.

## JUDAIC STUDIES PROGRAM

**Director:** *Moshe Pelli*; FA 550, Phone (407) 823-5039 or 823-2251

The Interdisciplinary Program in Judaic Studies offers both a Minor and a Certificate (but not a major). The Program cooperates with the departments of English, Foreign Languages, History, Philosophy and Humanities, Political Sciences, and Sociology/Anthropology.

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, Jewish Studies form an essential component of the university curricula.

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.

The Minor requires the completion of 18-upper-division credit hours in Jewish History (JST 3401, 3402, 3550), literature, such as HBR 3930 (Literature of the National Renais-



sance), HBT 3800 (Israeli Short Story), JST 3100 (Survey of Jewish Literature), JST 3751 (Literature of the Holocaust), LIT 4373 (Literature of the Bible), the Hebrew Bible (JST 3200 Introduction to Hebrew Scriptures), and culture, such as JST 3820 (Modern Hebrew Culture), JST 3810 (the Jewish National Movement), and JST 3550 (Introduction to Modern Judaism). In addition, students must complete the lower-division one year of Introductory Hebrew (HBR 1120, 1121). Hebrew language courses satisfy foreign language requirements.

See listings and courses under HBR, HBT, HMW, JST, and REL, and cross-listed courses in the Department of Foreign Languages.

### Latin American Area Studies

The minor in Latin American Area Studies offers a broad interdisciplinary approach to the understanding of Latin America and its peoples. The minor requires the completion of 18 semester hours selected from courses listed in the General Latin American Foundation Areas. In addition, students must complete the introductory language sequence (or its equivalent) in French or Spanish. For information contact Professor Jose B. Fernandez, FA 551, (407) 823-2224.

### LIBERAL STUDIES PROGRAM

**Director:** Dennis R. Kamrad, FA 208, Phone: (407) 823-2492

The Liberal Studies Program offers students the opportunity to pursue interdisciplinary studies through two different programs of study, the Liberal Arts Option and the General Studies Option.

### The Liberal Arts Option

#### Purpose

The Liberal Arts Option is a Bachelor of Arts degree program available to those students seeking an individualized, interdisciplinary major concentration within the College of Arts and Sciences outside of the traditional department-based majors. The Liberal Arts Option Committee, composed of faculty from the College of Arts & Sciences, will coordinate and approve curricular decisions for this option.

#### Degree Requirements

1. See Undergraduate Degree Requirements
2. See Special College Requirements
3. Required Courses

Students must complete areas A through D as identified below, for a minimum of 51 semester hours and a grade point average of 2.5 in all courses in the Liberal Arts Option.

- A. Students will be required to take an approved course in ethics and an approved course in critical thinking. 6 hours
- B. Students must complete two tracks of twelve hours each from the following areas:
  - Fine Arts
  - Natural Sciences
  - Social Sciences
  - Letters

The specific courses for each track will be determined by the Liberal Arts Option Committee in consultation with the departments. As an option, students will be allowed to develop an individually designed program in consultation with an advisor and approval by the Liberal Arts Option Committee. It is recommended that each of these tracks include a course in methodologies as part of the requirements. Courses should be developed on an interdisciplinary basis. 24 hours

- C. Students must complete a minor from those offered at UCF, or an individually designed minor program of study approved by the Liberal Arts Option Committee and the relevant department, for a minimum of 18 hours. 18 hours

- D. Students must conclude their program with an Undergraduate Thesis under the direction of a faculty member or members, or an undergraduate seminar which will be a capstone event in the program. 3 hours

Total Required 51 hours

## The General Studies Option

### Purpose

The General Studies Option is a university-wide general purpose program leading to the Bachelor of Arts or the Bachelor of Science in Liberal Studies. The determination of the B.A. or B.S. is determined by the majority of the course areas selected.

The program is administered through the College of Arts and Sciences and is designed for general studies education and academic flexibility. It recognizes that, apart from the professional curricula, there are many combinations of courses which can be structured into meaningful programs to meet the needs of individual students. The main purpose of the program is to accommodate students who desire a general, nonprofessional education which encompasses several disciplines.

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See Special College requirements
3. Required Courses

Students must complete three different subject area concentrations from those specified below. At least one of the subject areas must be satisfied by the completion of a minor. A minimum of 18 hours is required in each subject area concentration. Generally, courses used to meet General Education requirements can not be used in the subject areas and courses used in one subject area can not be used in another. Of the 54 hours required, a minimum of 48 must be upper level. A minimum grade point average of 2.0 is required in each of the subject areas. Total Required: 54 hours

### Course Subject Areas

Students must complete three different course subject areas, including at least one minor, from those listed below.

1. Business Administration  
A minor in Business Administration (24 hours)
2. Education  
Students who were previously majors in the College of Education may utilize a maximum of 18 hours of approved courses.
3. Engineering  
A minor in Technology and Society (18 hours), or  
18 hours of approved courses in Engineering, or  
18 hours of approved courses in Engineering Technology
4. Health Sciences  
A minor in Health Sciences (18 hours) or  
a minor in Molecular Biology and Microbiology (30)
5. Fine Arts  
18 hours of approved courses in Art, Music, or Theatre or  
a minor in Music (21 hours), Theatre (29 hours), or  
Art History (24 hours).
6. Humanities  
18 hours of approved courses in History, Philosophy, Humanities or  
Judaic Studies, or  
a minor in History (18 hours), Philosophy (21 hours), Humanities (24 hours), or  
Judaic Studies (18 hours).
7. Letters  
18 hours of approved courses in English, Foreign Literature, Comparative Literature, or  
a minor in Creative Writing (21), Literature (21 hours), Linguistics (18 hours), or  
Technical Writing and Editing (22 hours)
8. Languages  
18 hours of approved courses in Chinese, French, German, Hebrew, Italian, Latin, Russian, Spanish, or  
a minor in French (18 hours), German (18 hours), Italian (18 hours), Russian (18 hours), Spanish (18 hours), Asian Studies (21 hours), Latin America Area Studies (18 hours), or Soviet Area Studies (18 hours).



9. **Mathematical Sciences**  
18 hours of approved courses in mathematics and statistics or a minor in Mathematics (21 hours) or a minor in Statistics (18 hours)
10. **Computer Science**  
A minor in General Computer Science (18 hours)
11. **Physical Sciences**  
18 hours of approved courses in Astronomy, Chemistry, Forensic Science, Physical Geography, Geology, Physics, Oceanography and Meteorology, or a minor in Chemistry (28 hours) or Physics (20 hours)
12. **Behavioral and Social Sciences**  
18 hours of approved courses in Anthropology, Psychology, Sociology, Political Science, Cultural Geography, or a minor in Political Science (18 hours), Psychology (22-25 hours), Anthropology (21 hours), or Sociology (18 hours).
13. **Communication**  
18 hours of approved courses in Interpersonal or Organizational Communication or a minor in Interpersonal Communication (18 hours) or Organizational Communication (18 hours)
14. **Public Affairs**  
18 hours of approved courses in Criminal Justice or a minor in Legal Studies (18 hours) or a minor in Public Administration (21 hours)





## DEPARTMENT OF MATHEMATICS

**Chair:** L. Debnath, PH 403, Phone (407) 823-6284

**Faculty:** Andrews, Anthony, Armstrong, Brigham, Caron, Choudhury, Clarke, Debnath, Fernandez, Heinzer, Hurst, Jones, Li, Mikusinski, Mohapatra, Muilenburg, Nicholson, Norman, Pettofrezzo, Phillips, Rautenstrauch, Richardson, Rodriguez, Rollins, Salzmann, Sherwood, Shivamoggi, Taylor, Vajravelu, Zayed

The Department of Mathematics offers courses and programs which lead to a Bachelor of Science in Mathematics, a minor in mathematics and a Master of Science in Mathematical Science. (See the Graduate Studies catalog for a description of the M.S. in Mathematical Science.)

The programs in mathematics are designed to serve (1) students who wish to pursue careers in mathematics after having completed a baccalaureate degree; (2) students who wish to continue their education in graduate and professional schools; and (3) students who need to use 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 precalculus and calculus along with strong programs in the upper division in the traditional areas of algebra and analysis and applied mathematics.

A limited number of student assistantships are available for qualified graduate and undergraduate students.

### HONORS COURSES

Currently, the Department of Mathematics offers special courses for students in the Honors Program. These are listed as MAC 3311H, MAC 3312H, MAC 3313H, MAC 3930H, and MTH 3930H.



## MINOR

The Department of Mathematics offers the following minor consisting of a minimum of 21 hours.

Required Courses: MAC 3311, 3312, 3313, MAP 3302.

(MAC 3311 and 3312 may be waived by the Department Standards Committee for a student with adequate high school preparation in calculus.)

Restricted Electives: A minimum of two courses selected from MHF 2300, MAA courses, MAD courses, MAP courses, MAS courses, or MTG courses. (Either MAS 3105 or MAS 3106 may be used but not both. Courses may be selected from MAA 4226, 4227, or MAA 5211 but not both.) These two courses must be taken from the Department of Mathematics at UCF.

## Bachelor of Science: Mathematics

### Degree Requirements

1. See Undergraduate Degree Requirements

2. See special college and/or department requirements

All mathematics courses except for MAC 3311, 3312, 3313, and MAP 3302 must either be taken from the Department of Mathematics at UCF or must be approved by the Mathematics Department Standards Committee. The Department suggests that students consider taking MAS 3105 (Elementary Linear and Matrix Algebra) before taking MAS 3106 (Linear Algebra). MAS 3105 will then be used as an elective.

3. One course selected from

ENC 3241	Technical Report Writing	3 hours
ENC 3310	Magazine Writing	3 hours
ENC 3311	Advanced Expository Writing	3 hours

4. AREA OF SPECIALIZATION

a. Mathematics Option

Required Courses

#### 1st Year Sequence

MAC 3311	Calculus I (F)	4 hours
STA 3023	Statistical Methods I (F)	3 hours
MAC 3312	Calculus II (Sp)	4 hours
MHF 2300	Logic and Proof (Sp)	3 hours
BSC 2010	General Biology (Sp)	4 hours

#### 2nd Year Sequence

MAC 3313	Calculus III (F)	4 hours
MAS 3105	Elementary Linear and Matrix Algebra	4 hours
PHY 3048	Physics for Engineers & Scientists I (F)	3 hours
PHY 3048L	Physics Lab I (F)	1 hours
MAP 3302	Differential Equations (Sp)	3 hours
MAS 3106	Linear Algebra (Sp)	4 hours
PHY 3049	Physics for Engineers & Scientists II (Sp)	3 hours
PHY 3049L	Physics Lab II (Sp)	

#### 3rd Year Sequence

MAD 4203	Combinatorics and Graph Theory (F)	3 hours
MAP 4363	Applied Boundary Value Problems I (F)	3 hours
STA 4321	Statistical Theory I (F)	3 hours
COP 2500	Programming I (F)	3 hours
MAS 4301	Algebraic Structures (Sp)	4 hours
STA 4322	Statistical Theory II (Sp)	3 hours
COP 2501	Programming II (Sp)	3 hours

#### 4th Year Sequence

MAA 4226	Advanced Calculus I (F)	4 hours
MAA 4227	Advanced Calculus II (Sp)	4 hours
MTG 4302	Introduction to Topology (Sp)	3 hours

A minimum of 8 hours selected from upper-division or graduate mathematics or statistics courses from COT 4500, COT 5510, COT 4210 or ENG 4634. (MAC 3233, 3253, 3254, MAE 3817 and MAA 5211 may not be used.) One additional course in either the biological or physical sciences must be taken. This course must be approved by the Department Standards Committee.

b. Applied Mathematics Option

**1st Year Sequence**

MAC 3311	Calculus I (F)	4 hours
STA 3023	Statistical Methods I (F)	3 hours
MAC 3312	Calculus II (Sp)	4 hours
MHF 2300	Logic and Proof (Sp)	4 hours
BSC 2010	General Biology (Sp)	4 hours

**2nd Year Sequence**

MAC 3313	Calculus III (F)	4 hours
MAS 3105	Elementary Linear and Matrix Algebra	4 hours
PHY 3048	Physics for Engineers & Scientist I (F)	3 hours
PHY 3048L	Physics Lab I (F)	1 hour
MAP 3302	Differential Equations (Sp)	3 hours
MAS 3106	Linear Algebra (Sp)	4 hours
PHY 3049	Physics for Engineers & Scientist II (Sp)	3 hours
PHY 3049L	Physics Lab II (Sp)	1 hour

**3rd Year Sequence**

MAD 4203	Combinatorics & Graph Theory (F)	
or	or	
MAP 4153	Vector and Tensor Analysis (F)	3 hours
MAP 4363	Applied Boundary Values Problems I (F)	3 hours
COP 2500	Programming I (F)	3 hours
STA 4321	Statistical Theory I (Sp)	3 hours
MAP 4364	Applied Boundary Values Problems II (Sp)	3 hours
COP 2501	Programming II (Sp)	3 hours
STA 4322	Statistical Theory II (Sp)	3 hours

**4th Year Sequence**

MAA 4226	Advanced Calculus I (F)	4 hours
COT 4500	Numerical Calculus (F)	3 hours

\*\*Applied Elective

MAP 4103	Math Modeling (Sp)	3 hours
----------	--------------------	---------

\*Math-Stat Elective

\*One course selected from upper division or graduate mathematics or statistics courses or from COT 5510 or COT 4210. (MAC 3233, 3253, 3254, MAE 3817 and MHF 4404 may not be used.) One additional course in either the biological or physical sciences must be taken.

\*\*From an approved list

5. Electives

The number of hours depends on the courses chosen to satisfy university requirements and the area of specialization. The courses used as electives must be approved by the Department Standards Committee.

Total Semester Hours Required

120

**DEPARTMENT OF MUSIC**

**Acting Chair:** E. Hotaling, FA 105A, Phone (407) 823-2869

**Assistant Chair:** J. Gardner

**Faculty:** Brodie, Brunner, Eubank, Gardner, Greenwood, Koons, Pickering, Roney, Sung, Whisler, Whitney, Wolf, Wrancher.

**Part-time Faculty:** J. Beck, Jaskulski, Lesko, Markstein, A. Mascaro, J. Mascaro, McQuinn, Radock, Schwab.

The Department of Music offers a Bachelor of Music degree with options in performance and piano pedagogy; a Bachelor of Arts Degree in performance; 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 wish 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. A Master of Arts and a Master of Education degree 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, and a Student Chapter of Music Educators National Conference.

### **SPECIAL PERFORMANCE AND MUSIC EDUCATION ENTRANCE REQUIREMENTS**

In order to be accepted as a music or music education major, the student must perform an audition. Each student must demonstrate an advanced level of proficiency by performing compositions representing a variety of musical periods. Memorization is required for pianists and vocalists. Accompanists will be furnished only upon request prior to the audition. Each candidate must bring music for the compositions he or she intends to perform. The College will provide large instruments such as the tuba, string bass, or tympani for these auditions. All smaller instruments must be brought to the University. The audition will serve as a placement examination for accepted candidates.

As a prerequisite to formal admission to the State Approved Program of Teacher Education students must:

1. score at or above the 40th percentile of all college-bound persons tested on the American College Testing Program (ACT, score 17) or the Scholastic Aptitude Test (SAT, score 835) and have this score reported as part of their official academic record
2. have an overall G.P.A. of 2.5
3. have satisfactorily completed EDG 4321 (Teaching Strategies)
4. have passed the College Level Academic Skills Test (CLAST)
5. 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.

Since July 1, 1980, all applicants for a teaching certificate in Florida must pass a written competency examination administered by the Florida State Department of Education.

Since July 1, 1982, all applicants for their First Regular Florida Teaching Certificate must satisfy requirements of the Florida Beginning Teacher Program.

### **COMPREHENSIVE EXAMINATIONS**

Comprehensive examinations in music theory and music history should be taken by students during their junior year. Ear-training, sight-singing, part-writing, and visual analysis examinations will be offered during the fall semester; the music history examination will be offered during the spring. [See policy regarding recitals and student teaching.]

### **POLICY REGARDING MAJOR ENSEMBLE PARTICIPATION**

1. In order to graduate, Bachelor of Music students must spread their required 8 semester hours of major ensemble credit over at least 8 separate semesters; Bachelor of Arts students must spread their required 6 semester hours of major and/or minor ensemble credit over at least 6 separate semesters; music education majors must spread their required 7 semester hours of minor ensemble credit over at least 7 separate semesters.
2. The following ensembles are defined as major ensembles: chorus, symphony orchestra, concert band, marching band, and wind ensemble.
3. Vocal music education majors may elect to substitute 1 hour of band or orchestra or 1 hour of the minor ensemble requirement, provided they have sufficient facility on an appropriate instrument.
4. Assignment to major ensembles will be made by the ensemble directors.
5. Undergraduate students taking a course in Performance must take concurrently a major ensemble appropriate to their principal instrument.

### **POLICY REGARDING MINOR ENSEMBLE PARTICIPATION**

1. In order to graduate, Bachelor of Music students must spread their required 4 semester hours of minor ensemble credit over at least 3 separate semesters; music education majors must spread their required 4 semester hours of minor ensemble credit over at least 3 separate semesters.
2. The following ensembles are defined as *minor* ensembles: Brass Ensembles, Percussion Ensembles, Piano Ensembles, String Ensembles, Vocal Ensembles (except Opera Workshop), Woodwind Ensembles, Jazz Lab.

## POLICY REGARDING RECITALS AND STUDENT TEACHING

Bachelor of Music and Bachelor of Arts students with a performance specialization must complete at least all but one of their required comprehensive examinations before they will be permitted to audition for their senior recital. Bachelor of Music education students must complete at least all but one of their required comprehensive examinations before they will be permitted to do their senior student teaching. Bachelor of Music Education students may not give their required recital during the semester of their senior student teaching. Their senior student teaching must be done in the area of their specialization.

## MINOR

The Department of Music offers a Minor in Music. The requirements are as follows:

1. A successful audition on the student's principal instrument or voice.
2. A minimum of 21 semester hours credit to include the following or their equivalent: MUT 1111, MUT 1112 (4 hours); MUT 1241, MUT 1242 (2 hours); MUL 2010 (3 hours); major ensemble credit spread over at least 4 separate semesters (4 hours); 2 semesters of performance level I (4 hours) and 2 semesters of performance level II (4 hours) on the same performance medium.
3. A minimum of 11 semester hours of these required courses, including two semesters of a major performing organization and two semesters of Performance Level II, must be completed at UCF.
4. Successful completion of 4 semesters of Music Forum (Mus 1010).
5. A GPA of 2.0 is required for all music courses attempted, whether used to fulfill these requirements or not.

## CERTIFICATE PROGRAM IN RECORDING

Students pursuing a music degree may obtain a Certificate in Recording by taking the following courses, which are offered in conjunction with *Full Sail Center for the Recording Arts*:

Sophomore Practicum in Recording Arts— Introduction to Recording Arts, Recording Engineering, MIDI	8 Semester Hours
Junior Practicum in Recording Arts—Sound Reinforcement and Concert Lighting, Tapeless Studio, Video	10 Semester Hours



Photo Credit: James Meckley



Senior Practicum in Recording Arts—Music Business, Advanced Recording, Maintenance and Troubleshooting	10 Semester Hours
A recording internship offered by the Music Department	2 Semester Hours
Total course work specified for certificate:	30 Semester Hours

Normally, the practicum courses will be scheduled during the summer sessions after the first, second, and third years of the major. Students who pursue the Bachelor of Arts Degree should normally be able to complete the degree and Certificate requirements in three years.

Students must pay UCF all normal fees required for the number of credit hours for which they register. In addition, they must pay directly to *Full Sail* its appropriate fees for the 28 semester hours of course work undertaken there.

## Bachelor of Music: Performance

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses [both specializations]

MUS 1010	Music Forum (8 semesters)	0 hours
MUT 1111, 1112, 2116, 2117, 3561	Music Theory	10 hours
MUT 1241, 1242, 2246, 2247, 3248	Ear Training and Sight Singing	5 hours
MVK/MVS/MVW/MVB MVP/MVV	Performance (8 semesters including 2 semesters of Level IV)	16 hours
MUH 4211, 4212	*Music History	6 hours
MUN	Major Ensemble (8 semesters)	8 hours
MUN	Minor Ensemble (4 semesters)	4 hours
MVK	Class Piano I-IV (Not required of piano majors)	4 hours
MUG 3101	Basic Conducting	2 hours
PHY 3464	Physical Basis of Music	3 hours
PHY 3464	Foreign Language	8 hours
Music Electives		14 hours

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. Up to one additional year of foreign language.

In partial fulfillment of their elective requirements, piano students must take Piano Literature (MUL 3400, 3401 - 2 hours each) for a combined total of 4 hours; voice students take Foreign Diction (FRE 1005, GER 1005, ITA 1005 - 1 hour each), Voice Pedagogy (MVV 4640, 4641 - 1 hour each), and Song Literature (MUL 3600, 3601 - 1 hour each) for a combined total of 7 hours; piano pedagogy students take Piano Literature (MUL 3400, 3401 - 2 hours each), Piano Pedagogy (MVK 4640, 4641 - 1 hour each), and Studio Teaching (MUS 4401) for 2 hours, for a combined total of 8 hours.

4. Restricted Electives  
see above paragraph
5. University Electives 3 hours

### Special Non-Course Requirements

1. Students are required to take piano until they meet the Piano Proficiency requirement.
2. Students must take music history, theory, ear training and sight singing comprehensive examinations.
3. Two faculty-approved public recitals: a junior recital of 30 minutes length and a senior recital of 45 minutes length. Students who select the Piano Pedagogy option will perform two faculty-approved thirty-minute recitals.

4. Residency requirements: 2 semesters of Performance Level IV; senior recital; history, theory, ear training, and sight singing comprehensive examinations.
5. At least 77 hours of credit must be earned in music courses.

Total Semester Hours Required

120 Hours

## Bachelor of Arts: Performance

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses [both specializations]

MUS 1010	Music Forum (6 semesters)	0 hours
MUT 1111, 1112, 2116, 2117, 3561	Music Theory	10 hours
MUT 1241, 1242, 2246, 2247, 3248	Ear Training and Sight Singing	5 hours
MVK/MVS/MVW/MVB MVP/MVV	Performance (6 semesters including 2 semesters of Level III)	8 hours
MUH 4211, 4212	*Music History	6 hours
MUN	Major and Minor Ensembles (6 semesters)	6 hours
MVK	Class Piano I-IV (Not required of piano majors)	4 hours
	Music Electives/Special Requirements	5 hours

Any MUC, MUE, MUG, MUH, MUL, MUS, MUT courses numbered 3000 or higher.

In partial fulfillment of their elective requirements, piano students take Piano Literature (MUL 3400, 3401 - 2 hours each) for a combined total of 4 hours; voice students take Foreign Diction (FRE 1005, GER 1005, ITA 1005 - 1 hour each) and Song Literature (MUL 3600, 3601 - 1 hour each) for a combined total of 5 hours.

4. Restricted Electives  
see above paragraph
5. University Electives 35 hours

### Special Non-Course Requirements

1. Students are required to take piano until they meet the Piano Proficiency requirement.
2. Students must take music history, theory, ear training, and sight singing comprehensive examinations.
3. One faculty-approved thirty-minute recital.
4. Residency requirements: 2 semesters of Performance Level III; 2 ensembles, [each in a different semester]; MUT 3561; MUT 3248; 2 semesters of MUS 1010; history, theory, ear training, and sight singing comprehensive examinations; recital.

Total Semester Hours Required

120 hours

\*Three semester hours of coursework in the General Education Program are satisfied by MUH 4212.

## Bachelor of Music Education

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses

MUS 1010	Music Forum (6 semesters)	0 hours
MUT 1111, 1112, 2116, 2117, 3561	Music Theory	10 hours
MUT 1241, 1242, 2246, 2247, 3248	Ear Training and Sight Singing	5 hours
MVB/MVK/MVP	Performance (6 semesters including	



MVS/MVV/MVV	2 semesters of level III)	12 hours
MUN	Major Ensemble (6 semesters)	6 hours
MUN	Minor Ensemble	2 hours
MUH 4211, 4212	*Music History	6 hours
MUG 3101	Basic Conducting	2 hours
MUE 3460	Brass Techniques	1 hour
MUE 3470	Percussion Techniques	1 hour
MUE 3440	String Techniques	1 hour
MUE 3450	Woodwind Techniques	1 hour
EDF 3603	Analysis of Educational Foundations	3 hours
EDF 4214	Classroom Learning Principles	3 hours
EDG 4324	Teaching in the Schools	3 hours
EDG 4321	Teaching Strategies	4 hours
EDE 3943	Junior Year Student Teaching	3 hours
MUE 4311	Elementary School Music Instructional Analysis	2 hours
MUE 4360	Secondary School Music Instructional Analysis	2 hours
<b>Program A - Instrumental</b>		
MVV 1111	Class Voice	1 hour
MVK	Class Piano I-IV (Not required of piano majors)	4 hours
MVB/MVK/MVP/ MVS/MVV/MVV	Performance IV	2 hours
MUE 3460	Brass Techniques (repeat)	1 hour
MUE 3450	Woodwind Techniques (repeat)	1 hour
MUG 3302	Instrumental Conducting	2 hours
MUT 4344	Seminar in Music Arranging	1 hour
MUE 4480	Marching Band Techniques	1 hour
ESE 4943	Senior Student Teaching-Secondary	12 hours
<b>Program B - Choral</b>		
MVK 1111-1141	Class Piano I-IV (Not required of piano majors)	4 hours
MVV 1111	Class Voice (Not required of voice majors)	2 hours
MUG 3202	Choral Conducting	2 hours
MVB/MVK/MVP/ MVS/MVV/MVV	Performance IV	2 hours
ITA 1005, FRE 1005, GER 1005	Diction	3 hours
ESE 4943	Senior Student Teaching-Secondary	12 hours
<b>Program C -Elementary School</b>		
MVK 1111-1141	Class Piano I-IV (Not required of piano majors)	4 hours
MVV 1111	Class Voice (Not required of voice majors)	3 hours
MVS 1216	Secondary Guitar	1 hour
MVO 3124	Recorder II	1 hour
EDE 4943	Special Topics in Elementary School Music (2 semesters)	4 hours
	Senior Student Teaching-Elementary	12 hours
4. Restricted Electives		
None.		
5. Electives		
None.		
	Minimum Total Semester Hours Required	125-129

#### Special Non-course requirements

1. Students are required to take piano until they meet the Piano Proficiency requirement.
2. A faculty-approved public recital of at least 30 minutes length. (A recital is optional for the Elementary School Music Specialization).
3. History, theory, ear training, and sight singing comprehensive examinations.

4. Students graduating from UCF with a major in music education must complete their last two semesters of required performance; their recital, if required; and, their senior year student teaching while attending UCF.
  5. A GPA of 2.5 is required for all courses attempted.
- \*Three semester hours of course work in the General Education Program are satisfied by MUH 4212.

## DEPARTMENT OF PHILOSOPHY AND HUMANITIES

**Chair:** J. Riser, FA 464, Phone (407) 823-2273

**Faculty:** Flick, Jones, Kassim, Levensohn, Park, Riley, Riser, White

The Department of Philosophy and Humanities offers a philosophy major and an interdepartmental humanities major, as well as minors in philosophy, humanities, and Asian studies.

### MINORS

The Department of Philosophy and Humanities offers the following minors:

1. **Philosophy**  
Twenty-one semester hours.  
Selection of courses from an approved list, in consultation with a departmental advisor, with the following distribution: one course in critical thinking/logic, two courses in the history of philosophy, two courses in values and society, and two courses in philosophical analysis. For information, consult Dr. Donald Jones.
2. **Humanities**  
Twenty-four semester hours.  
Required courses: 12 semester hours of humanities, plus courses in art, music, literature, and electives in philosophy or religion. Specific courses must be selected in conference with a departmental advisor. For information, consult Dr. Paul Riley.
3. **Asian Studies**  
Twenty-one semester hours.  
An interdisciplinary minor in which seven UCF departments—Anthropology, Art, Economics, Foreign Languages and Literatures, History, Philosophy and Humanities, and Political Science—participate in order to offer students a basic and well-rounded background in the field. For information, consult Dr. Husain Kassim.

## Bachelor of Arts: Philosophy

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (24 semester hours)
  - A. Regular Major (33 hours required)
 

PHI 1100	Critical Thinking	3 hours
PHI 3011	Philosophical Reasoning	3 hours
PHI 3130	Formal Logic I	3 hours
PHH 3100	Ancient Philosophy	3 hours
PHH 3400, or	Modern Continental Philosophy, or	3 hours
PHH 3402	Modern British Philosophy	
PHH 3601, or	Contemporary Continental Philosophy, or	3 hours
PHH 3620	Contemporary Analytic Philosophy	
PHI 3600	Ethics	3 hours
PHI 4360, or	Epistemology, or	3 hours
PHI 4500	Metaphysics	

*Electives:* Nine upper-division hours in philosophy or related areas, with approval of advisor.
  - B. Honors in Philosophy
 

*Requirements*

    1. Admission to and continuing acceptance in University Honors Program.
    2. Satisfaction of all University requirements for Honors in the major.
    3. Grade of "B" or better in Honors Directed Readings (3 hours).
    4. Successful completion and oral defense of Honors Thesis.



5. Thirty-three hours of courses to be selected with guidance and approval of Honors Advisor and Department Chair.

*Electives:* Students are encouraged to select courses from other disciplines that supplement training in philosophy.

## Bachelor of Arts: Humanities

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (24 semester hours)
 

HUM 3431	Ancient World: Greece	3 hours
HUM 3432	Ancient World: Rome	3 hours
HUM 3401	Asian Humanities or	
HUM 3250	Contemp. Humanities	3 hours
HUM 3025	Critical Evaluation/Arts or	
PHI 3800	Aesthetics	3 hours
CLA 3850	Classical Myth or	
CLA 3851	Comparative Myth	3 hours
HUM 4301	The Classical Ideal	3 hours
HUM 4302	The Romantic Ideal	3 hours
HUM 4303	The Spiritual Ideal	3 hours
4. Restricted Electives (24 semester hours, to be chosen with the help of an advisor and to include at least one course each in art, literature, music, and philosophy.)
 

ARH 4311 or 4312	Ital. Ren. Art or ARH 3060 Hist. Arch.	3 hours
ARH 4350 or ARH 4430 or ARH 4450	History of Art	3 hours
ENL 3031 or 3051	English Lit. or LIT 2110 or 2120 Wrld. Lit.	3 hours
ENL 4330	Shakespeare or AML 3051 American Lit. II	3 hours
EUH 3122	Medieval Soc. & Civ. or EUH 3142 Ren. & Reform.	3 hours
MUL 2010	Enjoyment of Music	3 hours
PHH 3100	Ancient Phil. or PHH 3400 Mod. Continental Phil.	3 hours
PHM 3350	Introduction to Marxism or PHP 3786 Existentialism	3 hours
HUM 3552	Hebrew-Christian Heritage	3 hours
HUM 3417 or HUM 3418	Eastern Religious Thought and Culture	3 hours
THE 3112 or 3113	Theatre History	3 hours
THE 3370	Modern Drama or LIT 4094 Mod. Drama as Lit.	3 hours
5. Electives
 

May be used to obtain a second major or to complete requirements for teacher certification in Humanities in the College of Education.

## DEPARTMENT OF PHYSICS

**Chair:** S. K. Bose, HPB 310, Phone (407) 823-2325

**Faculty:** Bass, Beck, Bolemon, Bolte, Bose, Brennan, Caldwell, Chai, Chow, Elias, Hagan, Heinonen, Johnson, Kim, Littlewood, Llewellyn, Miller, Neighbor, Peale, Renken, Richardson, Saha, Schulte, Silfvast, Soileau, Stegeman, Van Stryland

The Department of Physics offers B.S., M.S., and Ph.D. degrees. Students interested in being a physics major are encouraged to see, as soon as possible, a faculty advisor who will help the student to design a curriculum. An appointment to see the advisor is necessary prior to registration in each semester.

Physics is a basic science and coursework in physics helps to prepare a student for a variety of careers in industry and government, as well as teaching in schools, colleges and universities.

The undergraduate program emphasizes classroom as well as advanced laboratory experiences. The Departmental computer laboratory, including SUN workstations, is available to every physics major; many of the advanced courses require the use of FORTRAN and MATHEMATICA.

Advanced undergraduates are encouraged to be involved in special projects and re-

search with faculty. Faculty research facilities are extensive in the areas of atomic-molecular, condensed matter, particle, and optical and laser physics.

Service courses required by other department and colleges are offered regularly as well as courses for science education majors and a physical science course satisfying general education requirements.

### Degree Requirements

1. General Undergraduate Degree Requirements.

2. In addition to the degree requirements listed below for a B.S. in Physics, the following standards are required by the department for graduation. Approval as a special case by the department Undergraduate Affairs Committee must be requested for any waiver.

(a) A minimum GPA of 2.0 for all courses used for a major in physics.

(b) No credit toward graduation for a "D" grade in any physics or mathematics course required for a major in physics; a higher grade on repeating is acceptable.

3. Required courses. The courses listed, or departmentally approved equivalents, are required in the physics curriculum.

BSC 2010C	General Biology	4 hours
CHM 2045, 2046, 2046L	Chemistry Fundamentals	8 hours
MAC 3311, 3312, 3313	Calculus with Analytic Geometry	12 hours
PHY 3048H (or 3048), 3048L	Physics For Scientists and Engineers I and II	8 hours
PHY 3049H (or 3049), 3049L		
MAP 3302	Differential Equations	3 hours
PHY 3101H (or 3101)	Physics for Scientists and Engineers III	3 hours
PHY 3XXX	Introduction to Theoretical Methods in Physics	3 hours
PHZ 3151	Computer Methods in Physics	3 hours
PHY 3221	Mechanics I	3 hours
PHY 3503	Thermal and Statistical Physics	3 hours
PHY 3322, 4324	Electricity and Magnetism I & II	6 hours
PHY 3752C	Physics of Scientific Instruments	3 hours
PHY 4604, 4605	Wave Mechanics I & II	6 hours
PHY 3802L	Intermediate Physics Laboratory	3 hours
PHY 4803L	Advanced Physics Laboratory	3 hours

4. Restricted Electives

Upper division courses approved by the advisor.

A minimum of six hours of these must be PHY or PHZ courses. 15 hours

Total Semester Hours Required 121

## DEPARTMENT OF POLITICAL SCIENCE

**Chair:** M.E. Vittes, FA 426, Phone (407) 823-2608

**Faculty:** Benson, Bledsoe, Celso, Fine, Handberg, Johnson-Freese, Kennedy, Kiel, Kurfirst, J. Lille, S. Lille, Morales, Pollock, Stern, Vittes

The Department of Political Science seeks to (1) provide 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 a broad background for and facilitate admission to law school through the prelaw emphasis; (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.

Canadian Studies: The Department of Political Science is the main contributor to the Canadian Studies Program. Interested students should contact Dr. Henry Kennedy.



Latin American Studies: The Political Science Department participates in the Latin American Studies Program. Contact Dr. Waltraud Q. Morales.

Soviet Area Studies: The Political Science Department participates in the Soviet Area Studies program. Consult Dr. Henry Kennedy.

### MINOR

The Department of Political Science offers minors consisting of a minimum of 18 semester hours in each minor.

#### 1. Political Science

Required courses: POS 2041. In the event a student has taken the varying credit POS 4941, only 3 semester hours from this course can be used in the minor. Four courses (12 semester hours) must be taken at senior institutions. Except for these requirements, students may select any other Political Science courses with the aid of an advisor.

#### 2. Political Science/Prelaw

Required courses: POS 2041, 4284; at least one from INR 4401, 4402, POS 4603, or POS 4604. In the event a student has taken the varying credit POS 4941, only 3 semester hours from this course can be used in the minor. Only two courses (6 semester hours) from a two-year institution will be accepted as part of the minor. Except for these requirements, students may select any other Political Science courses with the aid of an advisor.

## Bachelor of Arts: Political Science

### Degree Requirements

#### 1. See Undergraduate Degree Requirements

Ten courses (30 semester hours) must be taken at senior institutions.

#### 2. See special college and/or department requirements

#### 3. Required Courses

POS 2041	American National Government	3 hours
*POS 3703	Scope and Methods of Political Science	3 hours

\*This course should be completed by the second semester of the junior year.

#### 4. Restricted Electives

Majors must choose from one of the following emphases for a minimum of 30 additional hours.

##### Emphasis 1: American Politics and Policy

Five courses from area A	15 hours
Two courses from area B	6 hours
Two courses from area C	6 hours
One additional course from any area	3 hours

##### Emphasis 2: International Relations-Comparative Politics

*Five courses from area B	15 hours
Two courses from area A	6 hours
Two courses from area C	6 hours
One additional course from any area	3 hours

\*No more than two of the following courses may be considered part of area B credit: INR 4401, INR 4402, INR 4403.

##### Emphasis 3: Prelaw

POS 4284	Judicial Process and Politics	3 hours
One of the following:		3 hours

*POS 4603	American Constitutional Law I
POS 4604	American Constitutional Law II
INR 4401	International Law I
INR 4402	International Law II

\*POS 4603 should ordinarily be taken before POS 4604.

Five courses from either area A or area B	15 hours
Two courses from area A if area B is chosen above; or	
Two courses from area B if area A is chosen above	6 hours
One course from area C	3 hours

Total Hours in Major 36 hours

#### 5. Electives

Total Semester Hours Required 120

## AREAS OF SPECIALIZATION

The Department courses are divided into three areas of specialization.

- A. American Politics and Policy
- POS 3122 State Government
  - POS 3443 Political Parties and Processes
  - POS 3413 The American Presidency
  - POS 3424 Congress and the Legislative Process
  - PUP 3314 Minorities in American Politics
  - POS 3235 Mass Media and Politics
  - POS 3233 Public Opinion
  - POS 3273 Voting and Elections
  - POS 3173 Southern Politics
  - POS 4246 Political Socialization
  - POS 4603 American Constitutional Law I
  - POS 4604 American Constitutional Law II
  - POS 4284 Judicial Process & Politics
  - POS 4412 Presidential Campaigning
  - PUP 4323 Women and Politics
  - POS 4142 Metropolitan Politics
  - PUP 3204 Environmental Politics
  - PUP 4003 American Public Policy
  - POS 4622 Politics and Civil Rights
  - POS 4445 Comparative Political Parties
  - PUP 4503 Government and Science
  - PUP 4602 Politics of Health
  - POS 4265 Power and Policy in the United States
  - PUP 4009 Topics in Public Policy
- B. International Relations and Comparative Government
- INR 3002 International Relations
  - GEO 3470 World Political Geography
  - INR 4035 International Political Economy
  - INR 4102 American Foreign Policy
  - INR 4114 American Defense Policy
  - INR 4115 Strategic Weapons and Arms Control
  - INR 4224 Contemporary International Politics of Asia
  - INR 4243 International Politics of Latin America
  - INR 4225 Vietnam War
  - INR 4335 Coercion in International Politics
  - INR 4401 International Law I
  - INR 4402 International Law II
  - INR 4404 Space Law
  - INR 4504 International Organizations
  - CPO 3034 Politics of Developing Areas
  - CPO 3103 Comparative Politics
  - CPO 3132 Introduction to Canadian Studies
  - POS 3253 Contemporary Revolution and Political Violence
  - CPO 4123 Government and Politics of Great Britain
  - CPO 4284 Comparative Judicial Processes
  - CPO 4303 Comparative Latin American Politics
  - CPO 4643 Government and Politics of the Soviet Union
  - CPO 4024 Non-Western Politics
  - CPO 4133 Government and Politics of Canada
  - PUP 4510 Space Policy
  - PUP 3--- Introduction to Space Studies
- C. Political Theory
- POT 3302 Modern Political Ideologies
  - POT 3204 American Political Thought
  - POT 4003 Political Theory
  - POT 4314 Contemporary Democratic Theory
  - POT 4045 Ancient, Medieval and Early Modern Political Philosophy



POT 4054  
POS 4206  
POT 4---  
POT 4---

Modern Political Philosophy  
Political Psychology  
Marxist Political Theory  
Contemporary Political Theory

## **Prelaw: Political Science**

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, the student builds a firm foundation for law school entry and acquires a broad training which can result in career options upon graduation. For further information, consult one of the Department's prelaw advisors.

1. Some suggested electives include:

ACG 2001	Principles of Accounting I
ACG 2011	Principles of Accounting II
BUL 3111	Legal Environment of Business
ENC 3210	Business Report Writing
PLA 3015	Legal Research
PLA 3155	Legal Writing
PHI 3130	Formal Logic I
PHI 3131	Formal Logic II
MHF 2300	Logic and Proof in Mathematics
LIN 4341	Modern English Grammar
LIN 4801	Language and Meaning

## **Internship Program: Political Science**

For students who excel, a limited number of internships may be available each semester for 3 to 6 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.

## **DEPARTMENT OF PSYCHOLOGY**

**Chair:** *R. Tucker*, PH 317, Phone (407) 823-2216

**Faculty:** *Abbott, Blau, Brophy, Burroughs, Dyck, Fisher, Gilson, Guest-Houston, Hitt, Jensen, McGuire, Morgan, Rinalducci, Rollins, E. Sheridan, K. Sheridan, Shirkey, Silver, Smither, Tell, Thomas, Turnage, Wang, Wooten*

The undergraduate program provides a general preparation in Psychology with the option to select an emphasis area from a variety of subfields. Suggested emphasis area course listings are available in the department. Successful completion of the specified program of at least 41 hours leads to the Bachelor of Arts degree with a major in Psychology. The Bachelor of Science option is also available.

## **MINOR**

The Psychology Department offers minors in several emphasis areas, including 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. Therefore, a minimum of 22-25 credit hours are required, 3 in Statistics, and 19-22 in Psychology, including PSY 2013 (3 hours) and PSY 3214 (4 hours). The additional 12 (or more) hours are to be taken with the approval of the Psychology Department's Undergraduate Program Coordinator. The additional hours will generally follow suggested course lists which are available in the Department.

## **Bachelor of Arts: Psychology**

### **Degree Requirements**

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

3. Required Courses		
PSY 2013	General Psychology	3 hours
PSY 2023	Careers in Psychology	1 hour
PSY 3214	Research Methods	4 hours
PSY 3204	Statistical Methods in Psychology	4 hours
EXP 3404	Basic Learning Processes	4 hours
PSB 3002	Physiological Psychology	4 hours
4. Restricted Electives		
a. Psychology Department (any two)		
CLP 3143	Abnormal Psychology	3 hours
DEP 3004	Developmental Psychology	3 hours
PPE 3003	Personality Theory	3 hours
SOP 3004	Social Psychology	3 hours
b. Statistics Department (one of the two)		
STA 2014	Principles of Statistics	3 hours
STA 3023	Statistical Methods I	3 hours
c. <b>B.S. Option</b> (9 hrs. from the following courses):		
COP 2500	Computer Science I	3 hours
COP 2501	Computer Science II	3 hours
CGS 3000C	Computer Fundamentals for Business Applications	3 hours
MAC 3233	Concepts of Calculus	3 hours
MAC 3253	Applied Calculus I	3 hours
PCB 3063, 3063L	Genetics with Lab	4 hours
PCB 3703C	Human Physiology with Lab	4 hours
STA 4102	Computer Programming of Statistical Data	3 hours
ZOO 3733C	Human Anatomy with Lab	4 hours
5. Electives		
A total of 12 semester hours in other courses offered by the Psychology Department taken in accordance with the student's interests and career goals and with the consent of the advisor.		
	Total Hours Required Outside Major	3
	Total Hours Required in Major	38
	Total Semester Hours Required	120

## Bachelor of Science: Social Sciences

Contact Person: J. Boyte, FA 208, Phone (407) 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.

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses  
None
4. Restricted Electives
  - a. Choose one
 

POS 3703	Scope and Methods of Political Science	3 hours
PSY 3214	Research Methods (Psychology)	3 hours
SYA 3300	Research Methods (Sociology)	3 hours
  - b. A minimum of 15 semester hours in each of four Social Science disciplines. The following are the required courses for each discipline selected.
 

Communication		
RTV 4403	Radio, Television and Society	3 hours
	or	
JOU 3003	History of American Journalism	3 hours
COM 3311	Communication as a Behavioral Science	3 hours



Economics			
ECO 2013	Principles of Economics I		3 hours
ECO 2023	Principles of Economics II		3 hours
Political Science			
POS 2041	American National Government		3 hours
Psychology			
PSY 2013	General Psychology		3 hours
PPE 3003	Personality Theory		3 hours
Public Service Administration			
PAD 3003	Introduction to Public Administration		4 hours
CCJ 3020	Criminal Justice System		4 hours
	or		
PLA 3013	Law and the Legal System		4 hours
Sociology			
SYG 2000	General Sociology		3 hours
ANT 2003	General Anthropology		3 hours
5. Electives			
	Total Semester Hours Required		120

## DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

**Chair:** *D. Fabianic*, FA 402, Phone (407) 823-2227

**Faculty:** *W. Brown, A. Chase, D. Chase, Cook, Dees, Gay, D. Jones, Lynxwiler, Stearman, Unkovic, Wallace*

The Department of Sociology and Anthropology offers a Bachelor of Arts in Sociology and Anthropology. Students should consult with their advisor early in their academic careers to select an area of specialization within the Department or if they plan to pursue graduate work.

### MINORS

The Department offers the following minors:

1. Anthropology  
Required Courses: ANT 3211, ANT 3410, ANT 3422, ANT 3511; and a minimum of 9 semester hours of Anthropology. No more than 6 semester hours of transfer credit in anthropology will be accepted toward the minor, and no more than 6 semester hours of 1000/2000 credit can be applied. The minimum number of semester hours required is 21.
2. Sociology  
Required Courses: SYG 2000, SYO 3000; and a minimum of 12 semester hours of Sociology courses. No more than 6 semester hours of transfer credit will be accepted toward the minor, and no more than 6 semester hours of 1000/2000 credit can be applied. The minimum number of semester hours required is 18.

## Bachelor of Arts: Sociology

### Degree Requirements

The Sociology curriculum is designed to provide students a basic curriculum which emphasizes critical examination of various components of society. The purpose of the curriculum is to increase students' social awareness and ability to employ a sociological perspective to interpret social institutions and behavior. A minimum of 44 semester hours is required for a major. In addition, one course in statistics is also required.

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (23 semester hours)

SYG 2000	General Sociology	3 hours
SYA 3110	Development of Social Thought	3 hours
	or	
SYA 3120	Modern Sociological Thought	3 hours
SYA 3300	Research Methods	4 hours
SYA 3400	Research Methods and Statistics	4 hours
SYO 3360	Social Organization & Human Relations	3 hours
	or	

SYP 4000	Sociological Social Psychology	3 hours
SYA 4450	Data Analysis (PR: Course in Statistics)	4 hours

One course in Statistics

(After the required courses are completed, remaining courses listed in the required course category may be taken and will be credited in the Social Processes and Institutions category.)

#### 4. Restricted Electives

Majors must choose a minimum of 21 semester hours from the courses listed below:

SYG 3010	Social Problems	3 hours
SYA 4650	Applied Sociology	3 hours
SYD 3410	Urban Sociology	3 hours
SYD 3800	Sex Roles in Modern Society	3 hours
SYD 4020	Population	3 hours
SYO 3000	Modern Sociology	3 hours
SYO 3410	Sociology of Mental Illness	3 hours
SYO 3530	Social Stratification	3 hours
SYO 4100	Family Trends	3 hours
SYO 4250	Sociology of Education	3 hours
SYO 4300	Political Sociology	3 hours
SYO 4370	Sociology of Occupations and Professions	3 hours
SYO 4400	Medical Sociology	3 hours
SYP 3300	Collective Behavior	3 hours
SYP 3400	Social Change	3 hours
SYP 3450	Sociology and Law	3 hours
SYP 3510	Sociology of Deviant Behavior	3 hours
SYP 3520	Criminology	3 hours
SYP 3530	Juvenile Delinquency	3 hours
SYP 3551	Sociology of Alcoholism	3 hours
SYP 3602	Sociology of Popular Music	3 hours
SYP 3650	Sociology and Sport	3 hours
SYP 4550	Sociology of Drug Abuse	3 hours
SYP 4730	Sociology of Aging	3 hours

Eligible students may enroll for 3 to 16 semester hours of Internship. Arrangements for Internship are coordinated by the Department.

#### 5. Electives

Total Semester Hours Required

120

## Bachelor of Arts: Anthropology

### Degree Requirements

Anthropology offers the Bachelor of Arts degree. In keeping with the holistic nature of the discipline, students are required to pursue a course of study which leads to a comprehension of all subfields of Anthropology. The recognized subfields of Anthropology are Cultural Anthropology, Archaeology, Physical Anthropology, and Linguistics. Area studies concerned with North American Indians, Mesoamerican Civilization, and Latin American Culture are available. Students majoring or minoring in Anthropology with sufficient course background are provided an opportunity to participate in ongoing archaeological excavations associated with the Maya culture in the Central American country of Belize.

A minimum of 45 semester hours is required for a degree. All Anthropology courses are 3 semester hours with the exception of ANT 4124, which is 9 semester hours.

### Degree Requirements

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements
3. Required Courses (21 hours)

ANT 3211	Archaeology and the Rise of Human Culture (Anthropology I)	3 hours
ANT 3410	Cultural Anthropology (Anthropology II)	3 hours
ANT 3511	The Human Species (Anthropology III)	3 hours
ANT 3145	Archaeology of Complex Societies	3 hours
ANT 3422	Peoples of the World	3 hours



ANT 3610	Language and Culture	3 hours
ANT 4084	History of Anthropological Thought	3 hours
4. Restricted Electives (24 hours)		
Area Studies (Select 3)		
ANT 3153	Archaeology of North America	3 hours
ANT 3162	Archaeology of Middle and South America	3 hours
ANT 3163	Mesoamerican Archaeology	3 hours
ANT 3311	Indians of the Southeastern United States	3 hours
ANT 3312	Ethnology of North American Indians	3 hours
ANT 3313	Indians of the North American High Plains	3 hours
ANT 3328	Maya Archaeology	3 hours
ANT 3332	Peoples and Cultures of Latin America	3 hours
ANT 3360	Peoples of the Far East	3 hours
ANT 3363	Anthropology of Japan	3 hours
Specialized Studies (Select 5)		
Cultural		
ANT 3302	Sex, Gender, and Culture	3 hours
ANT 3241	Magic, Ritual, and Belief	3 hours
ANT 3432	Culture and the Individual	3 hours
ANT 3418	Aging and Death	3 hours
ANT 3262	Rural Society	3 hours
ANT 3271	Law and Culture	3 hours
ANT 3705	Action Anthropology	3 hours
Archaeology		
ANT 3122	Archaeological Method and Theory	3 hours
ANT 3141	The Emergence of Civilizations	3 hours
ANT 3142	Old World Prehistory	3 hours
ANT 3144	Prehistory of the American Indians	3 hours
ANT 4124	Advanced Archaeological Fieldwork	9 hours
ANT 4180	Seminar in Laboratory Analyses	3 hours
Physical		
ANT 3462	Medical Anthropology	3 hours
ANT 3464	Human Microevolution	3 hours
ANT 3512	Biobehavioral Anthropology	3 hours
ANT 3552	Primatology	3 hours
5. Electives		
ANT 2003	General Anthropology (recommended for non-majors)	3 hours
ANT 5479	Comparative Cultural Analysis	3 hours
ANT 5937	Proseminar in Anthropology	3 hours
Total Semester Hours Required		120

## SOVIET AREA STUDIES

Five UCF departments, Foreign Languages, History, Political Sciences, Sociology, and Philosophy and Humanities, have pooled their resources to offer a minor to students interested in Soviet Area Studies a basic and well-rounded background in the field. 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.

Interested students should register for the minor with Dr. Karl-Heinrich Barsch, Department of Foreign Languages, FA 439 (407) 823-2466. For further information consult any of the above mentioned departments.

## DEPARTMENT OF STATISTICS

**Chair:** M. E. Johnson, CCII 221, Phone (407) 823-2289

**Faculty:** Cutchins, Hoffman, Malone, Nickerson, Richardson, J. Schott, S. Schott, Somerville, M. Wang, Wildman-Pepe

The Department of Statistics offers courses and programs which lead to a Bachelor of Science in Statistics, 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 wish to pursue careers in statistics after having completed a baccalaureate degree; (2) students who wish to continue their education in graduate or professional schools; and (3) students who need to 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.

### MINOR

The Department of Statistics offers a minor (with a minimum of 18 hours). Required Courses: STA 3023 or STA 3032 or equivalent; STA 4163, STA 4164, and one of the following: STA 4222 or STA 4502. A grade of C or higher is required in each course counting toward a minor.

Restricted Electives: Six or more hours from STA courses numbered 3000 or higher. (Credit from STA 3023 or STA 3032 or the equivalent may not be used as a restricted elective.) All courses except STA 3023 or STA 3032 must be taken from the Department of Statistics at UCF unless substitutes are approved by the Department Standards Committee.

## Bachelor of Science: Statistics

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
  - (a) All statistics courses except STA 3023, STA 3032, and those protected by the Florida Common Course Numbering system must be taken from the Department of Statistics at UCF. Substitution of other transfer work must be approved by the Department Standards Committee.
  - (b) To meet the College of Arts and Sciences requirement for Natural Science majors, a Statistics major must take one course from one group (A or B) and two courses from the other group, with at least one laboratory in each group. Any additional science course in the College of Arts and Sciences of any level or any course in the College of Health numbered 3000 or higher will count as the fourth required course.

#### Group A

BOT 2010C  
BSC 2010C  
ZOO 2010C

#### Group B

CHM 2045  
CHM 2046 and CHM 2046L  
PHY 3053C  
PHY 3054C

(NOTE: If both CHM 2046 and CHM 2046L are taken, they will only count as one course in satisfying the above requirement. CHM 2046L by itself will not count as a course.)

- (c) A grade of "C" or higher is required in all STA courses counting towards a statistics major.
- (d) A 2.0 average or higher is required in all computer science and mathematics courses that count toward a statistics major.

### 3. Required Courses

STA 3023	Statistical Methods I	3 hours
STA 4664	Statistical Quality Control	3 hours
STA 4102	Computer Processing of Statistical Data	3 hours
STA 4163	Statistical Methods II	3 hours
STA 4164	Statistical Methods III	3 hours
STA 4222	Sample Survey Methods	3 hours
STA 4321	Statistical Theory I	3 hours
STA 4322	Statistical Theory II	3 hours
STA 4502	Nonparametric Statistical Methods	3 hours
COT 4500	Numerical Calculus	3 hours
COP 2500	Programming I	3 hours
COP 2501	Programming II	3 hours
MAC 3311	Calculus with Analytic Geometry I	4 hours
MAC 3312	Calculus with Analytic Geometry II	4 hours
MAC 3313	Calculus with Analytic Geometry III	4 hours



MAS 3106	Linear Algebra	4 hours
or		
MAS 3105	Elementary Linear and Matrix Algebra	4 hours
COT 3100	Introduction to Discrete Structure	3 hours
or		
MHF 2300	Logic and Proof in Mathematics	3 hours
ENC 3241	Technical Report Writing	3 hours

4. Restricted Electives

A minimum of 6 hours selected from upper-division or graduate statistics, mathematics, or computer science courses. (MAC 3233, 3253, 3254; all MAE courses; and MHF 4404 may not be used.)

Selected courses in engineering may be used but must first be approved by the Statistics Department Standards Committee.

5. Electives

The number of hours depends on the courses chosen to satisfy university requirements.

Total Semester Hours Required 120

## DEPARTMENT OF THEATRE

**Director:** *H. Smith*, TH 120, Phone (407) 823-2861

**Faculty:** *Cali, Rusnock. Associate: James Best*

The Department of Theatre offers the student an opportunity to concentrate in the area of theatre either as preparation for graduate or professional study or as a course of study in the liberal arts. In order to be accepted as a theatre major, the student must demonstrate proficiency level through a process of audition/portfolio/resumé review and department interview. Please contact the Department of Theatre for specific information.

The major in Theatre offers two separate areas of concentration. Successful completion of the theatre degree is contingent upon the student's continuing participation in Department productions.

### MINOR

The Department of Theatre offers a minor consisting of a minimum of 29 hours, as follows: THE 1020, THE 2925, THE 3370 or THE 3110 or THE 3111, TPA 2210, TPA 3060, or TPP 3310, TPP 2110, DAA 2200 and 9 hours of 3000/4000 level theatre electives.

## Bachelor of Arts: Theatre

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (28 semester hours)

DAA 2200	Dance I	3 hours
THE 1020	Theatre Survey	3 hours
THE 2925	Theatre Practicum I	2,2 hours
THE 3110	Theatre History I	3 hours
THE 3111	Theatre History II	3 hours
TPA 2210	Technical Theatre Production I	3 hours
TPA 2204	Technical Theatre Production II	3 hours
TPP 2110	Acting I	3 hours
TPP 3310	Directing I	3 hours

### AREAS OF CONCENTRATION

#### Program "A" Performance

THE 3305	Drama Analysis	3 hours
THE 3925	Theatre Practicum II	2 hours
TPP 3111	Acting II	3 hours
TPP 4150	Scene Study and Character Development	3 hours
TPP 4260	Acting III	3 hours
TPP 4311	Directing II	3 hours

Suggested Electives: Theatre and Related Courses 15 hours

Program "B" Technical Theatre & Design		
THE 3260	Theatrical Costume History and Design	3 hours
THE 3925	Theatre Practicum II	2 hours
TPA 3060	Scene Design	3 hours
TPA 3081	Scene Painting	3 hours
TPA 3220	Stage Lighting	3 hours
TPA 3221	Lighting Design	3 hours
TPA 4061	Advanced Design	3 hours
Suggested Electives: Theatre and Related Courses		12 hours

4. Restricted Electives

5. Electives—see each program for suggested electives

Total Semester Hours Required

120

## WOMEN'S STUDIES PROGRAM

The Women's Studies program offers an interdisciplinary minor, but not a major. Several departments cooperate in offering the minor, which emphasizes the history and cultural contributions of women and their role in society today. For further information contact Dr. Kathryn Seidel, FA 511, (407) 823-2251.

Required Courses—15 hours chosen from:

AMH 3560	Women in American History
ANT 3302	Sex, Gender and Culture
ARH 4458	Women and Art in 20th Century America
HSC 3930	Women and Health
LIT 3383	Women in Literature
PHM 4123	Feminist Theory
PUP 4323	Women and Politics
SOP 3742	Psychology of Women

Elective Courses (choose one) — 3 hours:

SYD 3800	Sex Roles in Modern Society
SYD 4100	The Family

Other courses as approved by the Women's Studies advisor.



# COLLEGE OF BUSINESS ADMINISTRATION

## UNDERGRADUATE PROGRAMS

- Accounting (BSBA)
- Economics (BSBA)
- Finance (BSBA)
- General Business Administration (BSBA)
- Hospitality Management (BSBA)
- Management (BSBA)
- Marketing (BSBA)

## GRADUATE PROGRAMS\*

- Accounting (MSA)
- Applied Economics (MAE)
- Business Administration (MBA, Ph.D.)
  - Concentrations in Accounting and Finance (Ph.D.)
- Taxation (MST)

\*See the Graduate catalog for information.

# COLLEGE OF BUSINESS ADMINISTRATION

**Dean:** *Richard C. Huseman*, BA 230, Phone (407) 823-2181

**Associate Dean:** *J. Hatfield*, BA 230L, Phone (407) 823-2512

**Coordinator, Undergraduate Programs:** *H. Hill*, BA 240, Phone (407) 823-2184

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.
- Completion of the basic ACG 2001, ACG 2301, or ACG 2023, ECO 2013, ECO 2023, ENC 1101, ENC 1102, MAC 1104, STA 3023, CGS 3000, with a minimum grade of "C".
- Achieved a minimum grade point average of 2.5 overall at the completion of at least sixty hours of course work.

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. Grades of "D" will not 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.**

The degree Bachelor of Science in Business Administration with the following majors is offered by the College of Business Administration:

Accounting	General Business Administration
Economics	Hospitality Management
Finance	Management
	Marketing

## Common Body of Knowledge

The following common course work, required of all majors, provides a foundation in the major areas of business administration.

*ACG 2001	Principles of Financial Accounting	3 hours
*ACG 2301	Principles of Managerial Accounting	3 hours
or		
*ACG 2023	Principles of Accounting I & II	6 hours



*ECO 2013	Principles of Economics I	3 hours
*ECO 2023	Principles of Economics II	3 hours
*ENC 3210	Business Report Writing	3 hours
*MAC 3233	Concepts of Calculus	3 hours
*STA 3023	Statistical Methods I	3 hours
*CGS 3000	Comp. Fund. for Business App.	3 hours

\*Must be completed with a minimum grade of "C."

BUL 3111	Legal Environment of Business	3 hours
ECO 3411	Quant. Methods & Bus. Decisional Anal.	3 hours
FIN 3403	Business Finance	3 hours
MAN 3025	Management of Organizations	3 hours
MAR 3023	Marketing	3 hours
MAN 3504	Production/Operations Management	3 hours
GEB 4361	Business in the International Environment	3 hours
MAN 4720	Business Policies	3 hours

Students in the College of Business Administration cannot receive credit for the following courses: GEB 3004, and FIN 3100.

### 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 Administration and a minimum 2.0 GPA in the course work required in the major, except in accounting and finance where a "C" or better is required in *each* course and a minimum 2.0 is required overall..

### 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 hours of course work must obtain permission from the college.

### Community/Junior College Transfers

1. 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.
2. 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; and
  - C. College Algebra.
3. 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.
4. A minimum of 12 semester hours must be completed at UCF within each individual major.

### Minor—International Business (Restricted to Business Majors)

The College of Business Administration offers a minor in International Business consisting of 18 semester hours.

Required Courses: GEB 4361, ECO 3702, FIN 4624, MAR 4243 or MAN 4600; Electives: 6 hours of the following courses - ANT 3410, ECS 4003, ECS 4013, GEO 3470, INR 4035, INR 4401, INR 4224, INR 4243, INR 4274; Special Topics Seminars in International Business; 3000/4000 level foreign language course.

### Minor (Restricted to Non-Business Majors)

The College of Business Administration offers a minor consisting of 24 semester hours. (Nine semester hours of upper division business courses must be completed at UCF.) Students are required to earn a "C" or better in each course.

Required courses: ACG 2001, 2301, or ACG 2023; ECO 2023, 2013; FIN 3403; MAN 3025; MAR 3023; one 3000/4000 level business course elective. A GPA of 2.0 is required for each course and overall. GEB 3004 may not be used as the business course elective.

See also: Florida Tilburg Program (for Business Majors) listed under *International Studies and Programs*

## SCHOOL OF ACCOUNTING

**Director:** T. Evans, BA 437, Phone (407) 823-2871

**Assistant to the Director:** L. Mahoney, BA 438, Phone (407) 823-5809

**Faculty:** Anderson, Bailey, Bandy, Goldwater, Hunt, Johnson, Judd, Kaminsky, Kelliher, Klintworth, Landry, Phillips, Potts, Robertson, Roush, J. Salter, M. Salter, Savage, Taylor, Veit, J. Welch, P. Welch, Villiave

### OBJECTIVES OF ACCOUNTING PROGRAMS

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.

## Bachelor of Science in Business Administration: Accounting

### Degree Requirements

1. See Undergraduate Degree Requirements
2. Special qualifications for satisfying this program's requirements are:
  - a. Students wanting to major in Accounting must apply for admission to the major.
  - b. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
  - c. A minimum grade of "C" must be earned in each accounting and tax course completed. Principles of Accounting and Principles of Managerial Accounting are included under this rule.
  - d. A transfer student to this program must:
    - (1) take a minimum of twelve (12) semester hours in accounting at UCF as approved by the director of the School of Accounting.
    - (2) have credit for a course in each of the following areas:
      - a. English communication arts including written composition
      - b. Oral expression
      - c. Behavioral sciences such as psychology, anthropology, and sociology
      - d. Humanities
      - e. Political environment of business and society such as political science, public administration, and ethics.

### 3. Required Courses

ACG 3103	Financial Accounting I	3 hours
ACG 3113	Financial Accounting II	3 hours
ACG 3361	Cost Accounting I	3 hours
ACG 3501	Financial Accounting for Governmental and Nonprofit Organizations	3 hours
ACG 4401	Accounting Information Systems I	3 hours
TAX 4001	Federal Income Tax I	3 hours
ACG 4123	Financial Accounting III	3 hours
ACG 4203	Financial Accounting IV	3 hours
ACG 4651	Auditing	3 hours
BUL 3112	Business Law I	3 hours
BUL 3121	Business Law II**	3 hours

4. Electives: As necessary to result in 120 total credit hours.

Total Semester Hours Required 120

\*Except BUL 3111, Legal Environment of Business, which is satisfied by taking BUL I & II.

\*\*Transferable only from senior academic institutions.

### 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 at least:
  - 12 hours in financial and cost accounting
  - 6 hours in auditing and internal auditing
  - 6 hours in tax

AND

39 hours in general business, including at least six 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.

## DEPARTMENT OF ECONOMICS

**Chair:** *W. McHone*, BA 325, Phone (407) 823-3266

**Faculty:** *Braun, Day, Gibbs, Hoffer, D. Hosni, Kilbride, T. Martin, McHone, Otsuka, Pennington, Raffa, Rungeling, Soskin, White, Xander*

The Department of Economics participates in two undergraduate degree programs: a B.S.B.A. degree in the College of Business Administration and a B.A. 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 future 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 B.A. in Economics should refer to the Economics Major in the College of Arts and Sciences.

### MINOR (In Economics for Non-Business Administration majors)

Required Courses: ECO 3101, 3203, 3411. These requirements are in addition to the prerequisites ECO 2013 and 2023.

Elective Courses: Three courses from the following: ECO 3233, 3703, 4224, 4303, 4412, 4504; ECP 3203, 3424, 3433, 4403, 4603, 4703; ECS 4003, 4013.

## Bachelor of Science in Business Administration: Economics

### Degree Requirements

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements:
  - a. Students wanting to major in Economics must apply for admission to the major.
  - b. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
  - c. A transfer student to this program must take a minimum of twelve (12) semester hours in economics at UCF.

### 3. Required Courses

ECO 3101	Intermediate Price Theory	3 hours
ECO 3203	Aggregate Economic Conditions Analysis	3 hours

### 4. Restricted Electives

All economics majors will be required to take five (5) electives from the following for a total of twenty-one (21) hours beyond the Common Body of Knowledge.

ECO 3233	Money and Banking	3 hours
ECO 3703	International Economics	3 hours
ECO 4224	Money: Issues and Analysis	3 hours
ECO 4303	History of Economic Thought	3 hours
ECO 4412	Economic Statistics and Econometrics	3 hours

ECO 4504	Economics of the Public Sector	3 hours
ECP 3203	Contemporary Labor Economics	3 hours
ECP 3424	The Economics of Regulated Industries	3 hours
ECP 3433	Transportation Economics	3 hours
ECP 4403	Business, Government & Industrial Organization	3 hours
ECP 4603	Urban and Regional Economic Problems	3 hours
ECP 4703	Managerial Economics	3 hours
ECS 4003	Comparative Economic Systems	3 hours
ECS 4013	Economic Development	3 hours
5. Electives		
Total Semester Hours Required		120

## DEPARTMENT OF FINANCE

**Chair:** R. J. Clayton, BA 420, Phone (407) 823-5567

**Faculty:** Atkinson, Cheney, Graham, Hsueh, Liu, Millican, Modani, Neustel, Park, Reiff, Scott, Spudeck, Weaver

The program in finance is designed to provide the student with broad knowledge in finance, including business finance, investments, financial institutions, 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.

### Bachelor of Science in Business Administration: Finance

#### Degree Requirements:

1. See Undergraduate Degree Requirements.
2. Special college and/or department requirements:
  - a. The Finance Major Curriculum consists of a total of 27 semester hours. Students are required to earn a grade of "C" or better in FIN 3403 and all other classes taken toward the major and to have a 2.0 overall average.
  - b. FIN 3403 Business Finance, is prerequisite to all finance courses. FIN 3303 Financial Markets, FIN 3404 Intermediate Corporate Finance, FIN 3453 Financial Models, and FIN 3504 Investment Analysis are prerequisites to all other finance, risk management and insurance, and real estate courses.
  - c. Students wanting to major in Finance must apply for admission to the major.
  - d. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
  - e. A transfer student to this program must take a minimum of twelve (12) semester hours in finance at UCF.

#### 3. Required Courses.

FIN 3303	Financial Markets	3 hours
FIN 3404	Intermediate Corporate Finance	3 hours
FIN 3453	Financial Models	3 hours
FIN 3504	Investments	3 hours
Select two of the following:*		
FIN 3324	Management of Financial Institutions	3 hours
FIN 4514	Portfolio Analysis and Management	3 hours
FIN 4503	Speculative Financial Markets	3 hours
FIN 4624	International Financial Management	3 hours
FIN 4424	Advanced Topics in Financial Management	3 hours
REE 4303	Real Estate Investment Analysis	3 hours

#### 4. Restricted Electives

- a. Select three of the following:\*
- |          |                         |         |
|----------|-------------------------|---------|
| ACG 3103 | Financial Accounting I  | 3 hours |
| ACG 3113 | Financial Accounting II | 3 hours |
| ACG 3361 | Cost Accounting         | 3 hours |



ACG 3401	Accounting Information Systems	3 hours
ACG 4123	Financial Accounting III	3 hours
BUL 3301	Property Law	3 hours
CGS 3100	Business Applications Programming	3 hours
COP 3120	Programming In COBOL	3 hours
ECO 4412	Economic Statistics and Econometrics	3 hours
ECP 4403	Business, Government, and Industrial Organizations	3 hours
ECP 4603	Urban and Regional Economic Problems	3 hours
ECP 4703	Managerial Economics	3 hours
EGN 4634	Operations Research	3 hours
FIN 4127	Employee Benefits and Retirement Planning	3 hours
FIN 3324	Management of Financial Institutions	3 hours
FIN 4514	Portfolio Analysis and Management	3 hours
FIN 4503	Speculative Financial Markets	3 hours
FIN 4624	International Financial Management	3 hours
FIN 4424	Advanced Topics in Financial Management	3 hours
MAC 3311	Calculus with Analytic Geometry I	3 hours
MAC 3312	Calculus with Analytic Geometry II	3 hours
MAC 3313	Calculus with Analytic Geometry III	3 hours
PLA 3201	Property and Real Estate Law	3 hours
PLA 4204	Land Use and Environmental Law	3 hours
PLA 4207	Landlord and Tenant Law	3 hours
PLA 4211	Estates and Trusts	3 hours
REE 4303	Real Estate Investment Analysis	3 hours
REE 4103	Real Estate Appraisal	3 hours
REE 4204	Real Estate Finance	3 hours
RMI 3011	Principles of Risk and Insurance	3 hours
STA 4102	Computer Processing of Statistical Data	3 hours
STA 4163	Statistical Methods II	3 hours
STA 4164	Statistical Methods III	3 hours
STA 4502	Nonparametric Statistical Methods	3 hours
STA 4664	Statistical Quality Control	3 hours
TAX 4001	Federal Income Tax I	3 hours
	Total Hours	120

\*No class may be used more than once.

## GENERAL BUSINESS ADMINISTRATION

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.

### Bachelor of Science in Business Administration: General Business Administration

#### Degree Requirements

1. Undergraduate Degree Requirements
2. Special college and/or department requirements:
  - a. Students wanting to major in General Business Administration must apply for admission to the major.
  - b. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
  - c. A transfer student to this program must take a minimum of twelve (12) semester hours in the major at UCF.
3. One (1) additional course beyond the Common Body of Knowledge in Finance (FIN prefix) and Marketing (MAR prefix) (one course from each discipline).

4. Restricted Electives

A minimum of six (6) additional courses from at least three (3) different departments (Accounting, Economics, Finance, Management, Marketing) taught in the College of Business Administration.

5. Electives

Total Semester Hours Required

120

### DEPARTMENT OF HOSPITALITY MANAGEMENT

**Interim Chair:** A. Milman, BA 409, Phone (407) 823-2188

**Faculty:** Ashley, Chesser, Ellis, Farsad, Lebruto, Melton, Milman, Pizam, Quain

The hospitality industry is comprised of the many business organizations that provide services to individuals when away from home. The hospitality industry, the number two employer in the United States, requires high technical and managerial competence for managing the numerous services provided by the varied organizations in the field.

The study of hospitality management prepares students for a broad range of managerial positions in hotels, motels, restaurants, catering services, resorts, country clubs, airlines, travel agencies, state and local convention and visitors bureaus, institutional food services, as well as supportive industries, such as consulting and research firms, public accountants, computer firms, or sales and marketing organizations. The program provides students opportunities to complete studies in all hospitality management areas as well as for "hands-on" laboratory experience and for study in advanced specialized courses. In addition, "real world" experience is provided through a requirement of 800 hours of paid employment in the hospitality field during each student's course of study.

#### MINOR

The Hospitality Management Department offers a minor consisting of 24 semester hours.

#### Required courses for minor:

HFT 1000, FSS 2202C, HFT 2252, HFT 2750, HFT 3600, HFT 3444, HFT 3700, one 3000/4000 level hospitality restricted elective. A GPA of 2.0 is required for these courses. Twelve (12) semester hours must be taken at UCF.

### Bachelor of Science in Business Administration: Hospitality Management

#### Degree Requirements

1. See Undergraduate Degree Requirements

2. Special college and/or department requirements:

- a. For Hospitality Management majors the mathematical foundation requirement is MAC 1104 - College Algebra. Thirty-one (31) semester hours in the major must be taken at the upper division level. Twelve (12) semester hours in the major must be taken in residence at UCF.
- b. Students wanting to major in Hospitality Management must apply for admission to the major.
- c. Within the College of Business Administration the first day of class attendance is mandatory. Final exams will be given during Exam Week.

3. Required Courses:

#### a. Business College Common Body of Knowledge

ACG 2001	Principles of Financial Accounting	3 hours
ACG 2301	Principles of Managerial Accounting	3 hours
ECO 2013	Principles of Macro-Economics	3 hours
ECO 2023	Principles of Micro-Economics	3 hours
ENC 3210	Business Report Writing	3 hours
STA 3023	Statistical Methods I	3 hours
CGS 3000	Computer Fundamentals for Business	3 hours
MAC 3233	Concepts of Calculus <b>OR</b> MGF 1203 Finite Math	3 hours
HFT 3600	Legal Enviro in Hospit/Tourism Industry	3 hours
HFT 3XXX	Services Operations Management	3 hours
ECO 3411	Quantitative Methods (HFT students may use substitute course. See HFT Dept. BA 409)	3 hours



FIN 3403	Business Finance	3 hours
MAN 3025	Management of Organizations	3 hours
MAR 3023	Marketing	3 hours
GEB 4361	Business in the Intrnl Environment	3 hours
MAN 4720	Business Policies	3 hours
<b>b. Hospitality Management Core</b>		
HFT 1000	Intro to Hospitality Management	3 hours
FSS 2202C	Food Production Techniques	3 hours
HFT 2252	Rooms Division Management	3 hours
HFT 2750	Fund of Conventions & Conferences	3 hours
HFT 3444	Hospitality Infromation System	3 hours
HFT 3700	Travel & tourism Administration	3 hours
HFT 3931	Guest Lecture Series	1 hour
HFT 4420	Profit Planning & Decision Making	3 hours
HFT 4503	Hospitality & Tourism Marketing	3 hours
<b>c. Hospitality Management Cooperative Education</b>		
The Co-op Education program provides students the opportunity to blend theory with practice by combining classroom education with study-related work experience. All students majoring in Hospitality Management must complete a minimum of 800 clock hours (equivalent to 20 full-time weeks) of paid study-related work experience in a hospitality or tourism enterprise. All work experience assignments have to be approved in advance by the departmental coop coordinator.		
<b>d. Restricted Electives</b>		18 hours
The student must complete 18 credit hours in one of five tracks; lodging management, food service management, conference and convention management, travel and tourism management and generalists. See Department for details.		
<b>e. Electives</b>		
"The Curriculum in Hospitality Management is currently under revision and students will need to check with the Department and/or Undergraduate Program Office to find out the specifics of the curriculum."		
Total Semester Hours Required		121 hours

## DEPARTMENT OF MANAGEMENT

**Interim Chair:** P. Lewis, BA 335, Phone (407) 823-2679

**Faculty:** Bogumil, Burnette, Callarman, Eubanks, Fandt, Fernald, Goodman, Gupta, Hatfield, Huseman, H. Jones, Leigh, R. Martin, Ragusa, Rosenkrantz, Winter

The study of management includes an investigation into the processes and techniques of leadership, planning, staffing, and controlling of both small and complex organizations.

Course offerings are designed to show how technological factors, the framework for decision-making, and the human contributions have impact on productivity, satisfaction of job-related needs, and effectiveness of actual organization.

A student majoring in management may find a wide variety of career opportunities in business, industry, or government.

## Bachelor of Science in Business Administration: Management

### Degree Requirements

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements:
  - a. Students wanting to major in Management must apply for admission to the major.
  - b. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
  - c. A transfer student to this program must take a minimum of twelve (12) semester hours in management at UCF.

3. Required Courses (Students are required to take the three required Management electives and five other courses from the designated Management options.)
- |          |                                  |         |
|----------|----------------------------------|---------|
| ISM 3011 | Management Information Systems   | 3 hours |
| MAN 4120 | Business and Society             | 3 hours |
| MAN 4240 | Organization Theory and Behavior | 3 hours |
4. Restricted Electives (Select a minimum of five courses)  
(The major should select one of the following concentration areas and take the designated five courses.)
- a. Human Resource Management**
- |          |                               |         |
|----------|-------------------------------|---------|
| MAN 3301 | Personnel Management          | 3 hours |
| MAN 4101 | Human Relations in Management | 3 hours |
| MAN 4310 | Personnel Management Issues   | 3 hours |
| MAN 4350 | Training and Development      | 3 hours |
| MAN 4401 | Labor Relations Management    | 3 hours |
- b. Management Information Systems**
- |          |   |         |
|----------|---|---------|
| PHI 3130 | Formal Logic I                            | 3 hours |
| ISM 4212 | Data Base Management Systems              | 3 hours |
| ISM 4113 | Information Systems Analysis and Design   | 3 hours |
| ISM 4130 | Implementation Information Systems        | 3 hours |
| ISM 4090 | Seminar in Management Information Systems | 3 hours |
- c. Production/Operational Management**
- |          |                                     |         |
|----------|-------------------------------------|---------|
| MAN 4029 | Management of Service Organizations | 3 hours |
| MAN 4521 | Production Planning and Control     | 3 hours |
| MAN 4572 | Procurement Management              | 3 hours |
| MAN 4854 | Management Science                  | 3 hours |
| MAN 4595 | Automated Materials Planning        | 3 hours |
- d. General Management**
- |          |                               |         |
|----------|-------------------------------|---------|
| MAN 4101 | Human Relations in Management | 3 hours |
| MAN 4600 | International Management      | 3 hours |
- Three additional courses to be selected from two of the other MAN or ISM concentration areas. 9 hours
5. Electives
- |                               |     |
|-------------------------------|-----|
| Total Semester Hours Required | 120 |
|-------------------------------|-----|

### MINOR (For Business and Non-Business Majors)

The College of Business Administration and the Department of Management offer a minor in Management Information Systems consisting of 27 semester hours.

Required courses: ACG 2001, ACG 2301, CGS 3000, MAN 3025, PHI 3130, ISM 3011, ISM 4212, ISM 4113, ISM 4130.

### DEPARTMENT OF MARKETING

**Interim Chair:** Ray P. Fisk, BA 317, Phone (407) 823-2108

**Faculty:** Allen, Davis, Fisk, Fuller, Gillett, Jarvis, Morris, Paul, Rubin, Teeple, Zank

Marketing encompasses the total system of interacting business activities designed to plan, price, promote, and distribute products and services to customers.

The marketing curriculum concentrates on developing the student's ability to understand, interpret, and measure market demand and to understand the blending of product, pricing strategies, promotional strategies, and distribution.

### Bachelor of Science in Business

#### Administration: Marketing

##### Degree Requirements

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements:
  - a. Students wanting to major in Marketing must apply for admission to the major.
  - b. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
  - c. A transfer student to this program must take a minimum of twelve (12) semester hours in marketing at UCF.





d. Students majoring in Marketing must earn a grade of "C" 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.

3. Required Courses

MAR 3503	Consumer Market Behavior	3 hours
MAR 3613	Marketing Research and Information Systems	3 hours
MAR 3823	Marketing Management	3 hours
MAR 4803	Marketing Strategy	3 hours

4. Restricted Electives

Minimum of 3 courses

MAR 3323	Advertising and Promotion Management	3 hours
MAR 3403	Sales Management	3 hours
MAR 4823	Product Management	3 hours
MAR 4231	Retail Management	3 hours
MAR 4203	Marketing Channel Systems	3 hours
MAR 4156	International Marketing	3 hours
MAR 4453	Industrial Marketing	3 hours
MAR 4071	Contemporary Marketing Issues	3 hours
MAR 4841	Services Marketing	3 hours

5. Electives

Total Semester Hours Required 120

Majors who meet departmental criteria are also eligible to apply for a marketing internship (MAR 4941) or the small business consulting class (MAR 5941), each of which is assigned three hours of elective credit. However, neither of these two courses can be counted as one of the restricted electives required of marketing majors.

# COLLEGE OF EDUCATION

## UNDERGRADUATE PROGRAMS

- Art Education (BS)
- Elementary Education (BS)
- English Language Arts Education (BS)
- Exceptional Child (BS)
- Foreign Language Education (BS)
- Mathematics Education (BS)
- Physical Education (BS)
- Science Education (BS)
- Social Science Education (BS)
- Vocational Education and Industry Training (BS)

## GRADUATE PROGRAMS\*

### Masters Programs

- Business Education (M.Ed.)
- Counselor Education (MA, M.Ed)
- Educational Leadership (MA, M.Ed)
- Educational Media (MA, M.Ed)
- Elementary Education (MA, M.Ed)
- English Language Arts Education (MA, M.Ed)
- Exceptional Child (MA, M.Ed)
- Instructional Systems (MA)
- Instructional Technology/Media (MA, M.Ed)
- Mathematics Education (MA, M.Ed)
- Music Education (MA, M.Ed)
- Physical Education (MA, M.Ed)
- Reading Specialist (M.Ed)
- School Psychology (Ed.S)
- Science Education (MA, M.Ed)
- Social Science Education (MA, M.Ed)
- Vocational Education and Industry Training (MA, M.Ed)

### Doctoral and Specialist Programs

- Curriculum and Instruction (Ed.S, Ed.D)
- Educational Leadership (Ed.S, Ed.D)
- School Psychology (Ed.S)

\*See the Graduate catalog for information.



# COLLEGE OF EDUCATION

**Dean:** TBA, ED 328, Phone (407) 823-3382

**Associate Dean:** M. Lynn, ED 328, Phone (407) 823-3382

**Assistant Dean:** T. Blair, ED 115, Phone (407) 823-2436

The role of the College of Education at the undergraduate level is to prepare students for careers as elementary, secondary, exceptional, physical, and vocational education teachers. The program of studies includes three components: general education, a subject matter specialization(s), and a teacher education component that addresses the professional knowledge and practical experience future teachers need in order to successfully teach children and youth in public school or private school settings.

The College of Education offers Bachelor of Science degrees with the following majors:

- Art Education
- Elementary Education
- English Language Arts Education
- Exceptional Child Education
- Foreign Language Education
- Mathematics Education
- Physical Education
- Science Education
- Social Science Education
- Vocational Education and Industry Training

Admission to the University of Central Florida does not imply admission to the College of Education. Students will only be allowed to enroll 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.

## **Admission to the College of Education**

Admission to the College will be granted when students meet the following requirements:

- complete 60 hours including the University General Education program or its equivalent, i.e. an A.A. degree from an approved Florida community college or state university
- have on file in the University admissions office a score at or above the 40th percentile on the SAT (840) or ACT (20 enhanced) and a 2.5 overall GPA.

## **Admission to Teacher Education**

Admission to Teacher Education will be granted when students who have been admitted to the College of Education meet the following requirements:

- have on file in the University admissions office passing scores on all parts of the College Level Academic Skills Test (CLAST)
- present an overall GPA of 2.5
- achieve a "C" or better grade in EDG 4321, Teaching Strategies, including successful completion of the tutorial component or equivalent
- complete a formal application for admission to a particular teacher education program
- be recommended by the faculty of the department of the student's major
- meet any special departmental requirements

## **Non-Degree Program (Initial Certification Only)**

All students who have earned a Baccalaureate degree from an accredited institution and who wish to be certified in elementary education must complete an undergraduate or master's degree 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.

## Teacher Education Curriculum

The professional teacher education curriculum is designed to provide students the opportunity to develop the professional knowledge, understandings, and competencies required for entry into the profession of teaching. Particular attention is given in the curriculum to the following:

- knowledge and understanding of the growth and development of children and youth
- knowledge and understanding of how children and youth learn
- knowledge and skills for accurately assessing and evaluating student performance
- knowledge and understanding of the role and function of schools and teachers in a free society to design educational teaching objectives
- ability to plan and implement effective teaching strategies
- ability to utilize computers and other forms of technology in teaching
- ability to work with culturally diverse populations

### Common Body of Professional Knowledge

Department of Educational Foundations, ED 243, Phone (407) 823-2427

The following course work provides the foundation of professional knowledge and understanding and is required of all majors:

EDG 4321	Teaching Strategies	4 hours
EDG 4324	Teaching in the Schools	3 hours
EDF 3603	Analysis of Educational Foundations	3 hours
EDF 4214	Classroom Learning Principles	3 hours

## Student Internships

**Assistant Dean:** *T. Blair*, ED 115, Phone (407) 823-2436

**Directors:** *R. Martin, M. Miller*, ED 158, Phone (407) 823-5788

The internship components of the professional program include early and continuous field experiences which provide students opportunities to develop skills and instructional competence. The internship program provides students a broad range of instructional experiences in various school settings which are developed through cooperative planning with local school administrators and teachers.

Field experience is an integral part of every degree program and consists of a junior and senior-year student teaching requirement. Placement of students is the responsibility of the College of Education. Students are placed in public schools that have been approved as Student Internship Centers.

**Junior student teaching** is a three semester hour credit experience. Students are assigned to work with certified supervising teachers under the direction of a College faculty coordinator. The junior student teaching program provides the student experiences at different grade levels and classroom settings for the purpose of developing specific instructional skills and knowledge and understanding of schooling. Students are enrolled in a limited number of related professional courses during the junior student teaching experience with the consent of their department chair. Application is made through the Office of Student Internships.

Admission to Junior Student teaching is restricted to those students who have been admitted to the Teacher Education program. A 2.5 overall GPA is required when application is submitted.

Deadlines are as follows:

Fall Semester	February 15 (preceding semester)
Spring Semester	September 15 (preceding semester)

**Senior student teaching** is a twelve-hour experience normally completed during the student's last semester. The student is placed in an approved school internship center under a supervising teacher and College coordinator. Students are expected to develop and execute instructional plans and to demonstrate the competencies required for temporary certification. The senior internship 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 Senior Student Teaching requires that the student has successfully completed requirements of junior student teaching and possesses at the time of application, a 2.5



G.P.A. in the area of content specialization, a 2.5 G.P.A. in the professional education sequence, and a 2.5 G.P.A. overall. Students must also be approved for admission by the faculty in the department of the student's major.

Application is made through the office of Student Internships. Application deadlines are as follows:

Fall Semester

February 15 (preceding semester)

Spring Semester

September 15 (preceding semester)

### **Graduation Requirements for a Two-Year Temporary Certificate**

To qualify for graduation, a student must have a 2.5 G.P.A. in all course work, a 2.5 G.P.A. in the area of content specialization, and a 2.5 G.P.A. in the professional course sequence. All College of Education undergraduate curricula fulfill State of Florida academic requirements for temporary certification. College of Education graduates who desire to teach outside Florida must meet certification requirements of the state in which they intend to seek a teaching position and should contact the appropriate Director of Teacher Education, State Department of Education for specific requirements.

All applicants for the Professional Teaching Certificate must demonstrate satisfactory completion of the Professional Orientation Program requirements and pass the College Level Academic Skills Test (CLAST), the professional education examination, and a specialization test in their certification area.

### **DEPARTMENT OF EDUCATIONAL FOUNDATIONS**

**Interim Chair:** *J. Nannette McLain*, ED 243, Phone (407) 823-2426

**Faculty: Professors:** *Cowgill, Dziuban, Kysilka, Lange, Manning*

**Associate Professors:** *Beadle, Biriamiah, Blume, Harrow, Hielt, McLain, Miller, Sciortino, Sullivan, Wood*

**Assistant Professors:** *Allen, Holt, Ikpa*

**Instructors:** *Ericson, Hutchinson.*

The Department of Educational Foundations teaches the core of professional courses that address the competencies and skills needed by all teachers. Foundation courses are also available for students pursuing graduate degrees in teacher education.

### **DEPARTMENT OF EDUCATIONAL SERVICES**

**Chair:** *William C. Bozeman*, ED 318, Phone (407) 823-2596

**Faculty: Professors:** *Baumbach, Bozeman, Hernandez, Johnson, Lynn, Rothberg*

**Associate Professors:** *Bollet, Cornell, Driscoll, Orwig, Tubbs*

**Assistant Professors:** *Balado, Daly, Hill, Murray, Pawlos, Priest*

The focus of the Department of Educational Services is to provide training for specialists in school and non-school environments. Certification programs and masters level (M.A. or M.Ed.) graduate programs are available in Counselor Education, Educational Leadership, and Instructional Technology. The Educational Specialist (Ed.S) is offered in Educational Leadership and School Psychology. The Doctor of Education (Ed.D) degree is offered in Educational Leadership.

### **DEPARTMENT OF EXCEPTIONAL AND PHYSICAL EDUCATION**

**Chair:** *Michael W. Churton*, ED 214 Phone (407) 823-2598

**Faculty: Professors:** *Churton, Midgett, Olson, Rohter.*

**Associate Professors:** *Bell, A. Cross, L. Cross, Gergley, Higginbotham, Miller, Platt, Powell.*

**Assistant Professors:** *Clark, Martin, Renner.*

**Instructors:** *Mitchell*

Undergraduate academic major programs leading to bachelor's degrees and certification are offered in Exceptional Education and Physical Education. The Exceptional Education program includes specialities in: (a) emotionally handicapped; (b) mentally retarded and (c) specific learning disabilities. The Physical Education program is a K-8 specialization. In addition, minors and secondary certification programs are available. Students are responsible for completion of program requirements and are encouraged to review their programs with an assigned advisor.



## Bachelor of Science: Exceptional Child Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

### Preprofessional Requirements

SPC 1600	Fundamentals of Oral Communication	3 hours
PSY 2013	General Psychology <b>OR</b>	3 hours
SYG 2000	General Sociology	
MAC 1104	College Algebra <b>OR</b>	
MGF 1203	Finite Math	3 hours
DEP 3004	Developmental Psychology	3 hours

### Prerequisites to Junior Internship

EDG 4321	Teaching Strategies	4 hours
MAE 2117	Elementary School Math Curriculum and Instruction	4 hours
RED 3012	Foundations of Reading	3 hours

EDF 4214	<b>RECOMMENDED:*</b> Classroom Learning Principles	3 hours
----------	---	---------

### Junior Internship

EDE 39343	Junior Student Teaching K-12	3 hours
-----------	------------------------------	---------

### Additional Professional Requirements

EDF 3603	Analysis of Educational Foundations	3 hours
EDG 4324	Teaching in Schools	3 hours
EDF 4214	Classroom Learning Principles	3 hours

### Specialization Requirements

EEX 3102	Language Development and Common Disorders*	3 hours
EEX 4221	Assessment of Exceptional Students	3 hours
EEX 4601	Behavioral Management	3 hours
EEX 3243	Techniques for the Exceptional Adolescent-Adult*	3 hours
EEX 3241	Methods for Academic Skills for Exceptional Students*	3 hours
EEX 2010	Introduction to Special Education*	3 hours



### Specialization Core

Mentally Handicapped Specialization		
EMR 4011	Introduction to Mental Retardation	4 hours
LAE 4314	Language Arts in Elementary Schools	3 hours
Learning Disabilities Specialization		
ELD 4011	Introduction to Specific Learning Disabilities	4 hours
LAE 4314	Language Arts in Elementary Schools	3 hours
Emotionally Disturbed Specialization		
EED 4011	Teaching Emotionally Disturbed Students	4 hours
EED 3250	Behavioral Issues of the Emotionally Handicapped	3 hours

### Senior Internship

EDE 4943	Senior Student Teaching - Elementary OR	
ESE 4943	Senior Student Teaching - Secondary	12 hours
EEX 4920	Senior Seminar in K-8 Special Education	2 hours
Minimum Total Semester Hours Needed		120

## Bachelor of Science: Physical Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

### Preprofessional Requirements

SPC 1600	Fundamentals of Oral Communication	3 hours
PSY 2013	General Psychology	3 hours
MAC 1104	College Algebra OR	
MGF 1203	Finite Math	3 hours
ZOO 3733C	Human Anatomy	3 hours

### Prerequisites to Junior Internship

EDG 4321	Teaching Strategies	4 hours
RECOMMENDED:		
EDF 4214	Classroom Learning Principles	3 hours

### Junior Internship

EDE 3942	Junior Student Teaching—Elementary	3 hours
----------	------------------------------------	---------

### Additional Professional Requirements

EDF 3603	Analysis of Educational Foundation	4 hours
PET 3720C	Teaching Physical Education (K-8)	2 hours
PET 3740C	Teaching Physical Education (6-12)	2 hours
EDG 4324	Teaching in Schools	3 hours
EDF 4214	Classroom Learning Principles	3 hours

### Additional Specialization Requirements

PET 3041	Games Elementary Physical Education Program	3 hours
DAE 3370	Dance & Rhythmics	3 hours
PEP 3204	Gymnastics	3 hours
PET 4035	Motor Development Learning	3 hours
PET 4312	Biomechanics	3 hours
PET 4351	Applied Exercise and Human Physiology	3 hours
PEO 3011	Team Sports	3 hours
PEO 3031	Individual Sports and Leisure Activities	3 hours
PET 4401	Administration and Measurement in Physical Education	3 hours
PET 4640	Adapted Physical Education	3 hours
PET	Elective approved by advisor	3 hours

### Senior Internship

EDE 4943	Senior Student Teaching - Elementary	12 hours
Minimum Total Semester Hours Needed		120

## DEPARTMENT OF INSTRUCTIONAL PROGRAMS

**Chair:** D. Kirby, ED 346, Phone (407) 823-2939

**Faculty: Professors:** Anderson, Blair, Brumbaugh, Clarke, Hall, Hynes, Joels, Kirby, Martin, Palmer, Thompson, West

**Associate Professors:** *Armstrong, Bailey, Gurney, Hopkins, Hudson, Paugh, Siebert, Sorg, Williams*

**Assistant Professors:** *Camp, Cope, Cornett, Everett, McGhee, Ortiz, Ratliff*

**Instructors:** *Buchoff, Gard, Kiger, McGuffee, Robinson*

### **Elementary Education**

The career 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.

An elementary education major must have the following preparation: (1) a broad general education; (2) a specialized knowledge of content, techniques, and materials needed to teach different elementary school subjects such as art, language arts, reading, mathematics, music, physical education, science and social studies; and (3) professional study which includes planned laboratory activities with children in schools identified as Teacher Education Centers.

Early Childhood Education (kindergarten). In combination with preparation to teach grades one through six, requirements may be met for preparation/certification to teach Kindergarten.

### **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. Specializations are available in Biology, Business, Chemistry, English, Foreign Language, Mathematics, Physics, and Social Science.

### **Art/Music/Foreign Language**

Three programs are designed to prepare specialists to teach at both the elementary and secondary levels (K-12). Majors in Art and Foreign Language Education are available. The Bachelor's degree program in Music Education is located in the Department of Music with the Department of Instructional Programs responsible for professional requirements.

### **Vocational Education and Training Development**

The vocational education degree is for individuals in Business/Office Occupations, Industrial/Technical areas or selected Health Occupations who wish to teach their specialization in secondary or post-secondary schools. To be eligible for the degree, students must have worked full time in the occupation for at least two years and must demonstrate competence through an examination or licensure in the area in which they wish to teach. A maximum of 30 semester hours of credit by examination or credit granted through licensing may count toward the degree.

The Training Development Track is designed for individuals who are or who plan to be trainers in business, industry, or health care facilities. This option will not prepare individuals to meet Florida Teacher Certification requirements.

### **Bachelor of Science: Art Education**

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

#### **Preprofessional Requirements**

SPC 1600	Fundamentals of Oral Communication	3 hours
PSY 2013	General Psychology OR	3 hours
SYG 2000	General Sociology	
MAC 1104	College Algebra OR	3 hours
MGF 1203	Finite Mathematics	
ART 2201	Design Fundamentals I	3 hours

#### **Prerequisites to Junior Internship**

EDG 4321	Teaching Strategies	4 hours
	<b>RECOMMENDED:</b>	
EDF 4214	Classroom Learning Principles	3 hours

#### **Junior Internship**

EDE 3943	Junior Student Teaching K-12	3 hours
----------	------------------------------	---------

#### **Additional Professional Requirements**

ARE 4143	Methodology for Teaching Art Education I	2 hours
ARE 4144	Methodology for Teaching Art Education II	2 hours



EDF 3603	Analysis of Educational Foundations	3 hours
EDG 4324	Teaching in Schools	3 hours
EDF 4214	Classroom Learning Principles	3 hours
Specialization requirements		
ART 2201C	Design Fundamentals I	3 hours
ART 2202C	Design Fundamentals II	3 hours
ART 2300C	Drawing Fundamentals I	3 hours
ART 2301	Drawing Fundamentals II	3 hours
ART 3110C	Ceramics	3 hours
ART 3510C	Painting I	3 hours
ART 3400C	Printmaking	3 hours
ART 3230C	Design in Advertising	3 hours
ARH 2050	History of Art I	3 hours
ARH 2051	History of Art II	3 hours
ARE XXXX	Teaching Art Appreciation	3 hours
PGY 3401C	Photography	3 hours
Restricted Electives - Select Two		
ARE 3662	Community Arts I	3 hours
ARE 3663	Community Arts II	3 hours
ART 5109C	Crafts Design	3 hours
ART 3701	Sculpture	3 hours
PHI 3800	Aesthetics	3 hours
PHI 3803	Philosophy and Creativity (PR: PHI 3800)	3 hours
ART 4530	Advanced Painting	3 hours
ART 4166	Metals, Woods	3 hours
ART 4130	Fibers, Fabrics	3 hours
ARE 3550	Introduction to Art Therapy	3 hours
Senior Internship		
EDE 4943	Senior Student Teaching - Elementary OR	12 hours
ESE 4943	Senior Student Teaching - Secondary	
	Minimum Total Semester Hours Needed	120

## Bachelor of Science: Elementary Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

### Preprofessional Requirements

SPC 1600	Fundamentals of Oral Communication	3 hours
PSY 2013	General Psychology I	3 hours
MAC 1104	College Algebra OR	
MGF 1203	Finite Math	3 hours
GEO 1200	Physical Geography	3 hours

### Prerequisites to Junior Internship

EDG 4321	Teaching Strategies	4 hours
RED 3012	Foundations of Reading	3 hours
MAE 2117	Instruction of Mathematics in the Elementary School	4 hours

### RECOMMENDED:

EDF 4214	Classroom Learning Principles	3 hours
Junior Internship		
MAE 4326	How Children Learn Math	4 hours
RED 4519	Diagnostic and Corrective Reading Strategies	3 hours
SSE 3312	Teaching Social Science in the Elementary Schools	4 hours
EDE 3942	Junior Student Teaching Elementary	3 hours

### Additional Professional Requirements

EDF 4214	Classroom Learning Principles	3 hours
EDF 3603	Analysis of Educational Foundations	3 hours
EDG 4324	Teaching in Schools	3 hours

<b>Additional Specialization Requirements</b>		
ARE 4313	Art/Elementary Schools	3 hours
HLP 4722	Teaching Elementary School Health/Physical Education	3 hours
LAE 3414	Literature for Children	3 hours
LAE 4314	Language Arts/Elementary	3 hours
MUE 3210	Music Elementary School	3 hours
SCE 3310	Teaching Science in Elementary School	4 hours
<b>Senior Internship</b>		
EDE 4943	Senior Student Teaching Elementary	12 hours
<b>Minimum Total Semester Hours Needed</b>		<b>120</b>

### **Bachelor of Science: English Language Arts Education**

1. See Undergraduate Degree Requirements		
2. See special college and/or department requirements		
<b>Preprofessional Requirements</b>		
SPC 1600	Fundamentals of Oral Communication	3 hours
CRW 2000	Introduction to Creative Writing	3 hours
MAC 1104	College Algebra OR	
MGF 1203	Finite Math	3 hours
PSY 2013	General Psychology	3 hours
<b>Prerequisites to Junior Internship</b>		
EDG 4321	Teaching Strategies	4 hours
<b>RECOMMENDED:</b>		
EDF 4214	Classroom Learning Principles	3 hours
<b>Junior Internship</b>		
ESE 3940	Junior Student Teaching Secondary	3 hours
<b>Additional Professional Requirements</b>		
LAE 3335	English Instructional Analysis	4 hours
EDF 3603	Analysis of Educational Foundations	3 hours
EDG 4324	Teaching in Schools	3 hours
EDF 4214	Classroom Learning Principles	3 hours
<b>Specialization Requirements</b>		
LIT 2110	World Literature I OR	
LIT 2120	World Literature II	3 hours
ENL 3031	English Literature I to 1798	3 hours
ENL 3051	English Literature II to 1950	3 hours
AML 3031	American Literature I	3 hours
AML 3051	American Literature II	3 hours
LIT 3000	Literary Analysis	3 hours
LAE 4464	Literature for Adolescents	3 hours
ENC 3311	Advanced Expository Writing	3 hours
LIN 4680	Modern English Grammar OR	
LIN 2670	Grammar and Composition	3 hours
LAE 4342	Teaching Language/Composition	3 hours
CRW 2000	Introduction to Creative Writing	3 hours
<b>Restricted Electives (6SH)</b>		
Two English courses approved by advisor		6 hours
<b>Senior Internship</b>		
ESE 4943	Senior Student Teaching Secondary	12 hours
<b>Minimum Total Semester Hours Needed</b>		<b>120</b>

### **Bachelor of Science: Foreign Language Education—French**

1. See Undergraduate Degree Requirements		
2. See special college and/or department requirements		
<b>Preprofessional Requirements</b>		
SPC 1600	Fundamentals of Oral Communication	3 hours
PSY 2013	General Psychology OR	
SYG 2000	General Sociology	3 hours
MAC 1104	College Algebra OR	



MGF 1203	Finite Math	3 hours
FRE 2201	Intermediate French Language and Civilization	3 hours
Prerequisites to Junior Internship		
EDG 4321	Teaching Strategies	4 hours
RECOMMENDED:		
EDF 4214	Classroom Learning Principles	3 hours
Junior Internship		
EDE 3940	Junior Student Teaching K-12	3 hours
Additional Professional Requirements		
FLE 3333	Foreign Language Instructional Analysis	2 hours
FLE 4xxx	Foreign Language K-6	2 hours
EDF 3603	Analysis of Educational Foundations	3 hours
EDG 4324	Teaching in Schools	3 hours
EDF 4214	Classroom Learning Principles	3 hours
Specialization Requirements		
FLE 3063	Foreign Language as Human Behavior	2 hours
FRE 1120	Elementary French and Civilization I	4 hours
FRE 1121	Elementary French and Civilization II	3 hours
FRE 2200	Intermediate French and Civilization I	4 hours
FRE 2201	Intermediate French and Civilization II	4 hours
FRE 3244	French Conversation	3 hours
FRE 3240	French Composition	3 hours
FRW 3100	Survey French Lit I	3 hours
FRW 3101	Survey French Lit II	3 hours
Restricted Electives		
	4 upper division courses in French (with advisor approval)	
Cognate Requirements		
LIN 3010	Principles of Linguistics OR	
LIN 4440	Sounds and Forms of Language OR	
LIN 4801	Language and Meaning	3 hours
ANT 3410	Cultural Anthropology (Anthropology II)	3 hours
Senior Internship		
EDE 4943	Senior Student Teaching Elementary OR	
ESE 4943	Senior Student Teaching Secondary	12 hours
	Minimum Total Semester Hours Needed	120

### **Bachelor of Science: Foreign Language Education—Spanish**

1. See Undergraduate Degree Requirements

2. See special college and/or department requirements

#### Preprofessional Requirements

SPC 1600	Fundamentals of Oral Communication	3 hours
PSY 2013	General Psychology OR	
SYG 2000	General Sociology	3 hours
MAC 1104	College Algebra OR	
MGF 1203	Finite Math	3 hours
SPN 2231	Intermediate Spanish Language and Civilization	3 hours

#### Prerequisites to Junior Internship

EDG 4321	Teaching Strategies	4 hours
RECOMMENDED:		
EDF 4214	Classroom Learning Principles	3 hours

#### Junior Internship

EDE 3940	Junior Student Teaching K-12	3 hours
----------	------------------------------	---------

#### Additional Professional Requirements

FLE 3333	Foreign Language Instructional Analysis	2 hours
FLE 4xxx	Foreign Language K-6	2 hours
EDF 3603	Analysis of Educational Foundations	3 hours
EDG 4324	Teaching in Schools	3 hours
EDF 4214	Classroom Learning Principles	3 hours

### Specialization Requirements

FLE 3063	Foreign Language as Human Behavior	2 hours
SPN 1120	Elementary Spanish and Civilization I	4 hours
SPN 1121	Elementary Spanish and Civilization II	4 hours
SPN 2200	Intermediate Spanish and Civilization I	4 hours
SPN 2201	Intermediate Spanish and Civilization II	4 hours
SPN 3241	Spanish Conversation	3 hours
SPN 3420	Spanish Composition	3 hours
SPW 3100	Survey Spanish Lit I	3 hours
SPW 3101	Survey Spanish Lit II	3 hours

### Restricted Electives

4 upper division courses in Spanish  
(with advisor approval)

### Cognate Requirements

LIN 3010	Principles of Linguistics OR	
LIN 4440	Sounds and Forms of Language OR	
LIN 4801	Language and Meaning	3 hours
ANT 3410	Cultural Anthropology (Anthropology II)	3 hours

### Senior Internship

EDE 4943	Senior Student Teaching Elementary OR	
ESE 4943	Senior Student Teaching Secondary	12 hours
	Minimum Total Semester Hours Needed	120

## Bachelor of Science: Mathematics Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

### Preprofessional Requirements

SPC 1600	Fundamentals of Oral Communication	3 hours
PSY 2013	General Psychology	
MAC 1104	College Algebra OR	
MGF 1203	Finite Math	3 hours
CGS 1060	Introduction to Computer Science	3 hours

### Prerequisites to Junior Internship

EDG 4321	Teaching Strategies	4 hours
	RECOMMENDED:	
EDF 4214	Classroom Learning Principles	3 hours

### Junior Internship

EDE 3940	Junior Student Teaching Secondary	3 hours
----------	-----------------------------------	---------

### Additional Professional Requirements

MAE 3330	Mathematics Instructional Analysis	4 hours
EDF 3603	Analysis of Educational Foundations	3 hours
EDF 4324	Teaching in Schools	3 hours
EDF 4214	Classroom Learning Principles	3 hours

### Specialization Requirements

MAC 3311	Calculus with Analytic Geometry I	4 hours
MAC 3312	Calculus with Analytic Geometry II	4 hours
MAS 3105	Elementary Linear and Matrix Algebra	3 hours
MAS 3203	Number Theory	3 hours
MHF 2300	Logic and Proof in Mathematics	3 hours
MTG 4212	Modern Geometry	4 hours
STA 3023	Statistical Methods I	3 hours
MAE 4634	Programs in Teaching of Mathematics	3 hours
MHF 4404	History of Mathematics	3 hours
CGS 1060	Introduction to Computer Science	3 hours

### Restricted Electives - Select One (with advisor approval)

MAC 1114	College Trigonometry	3 hours
MAC 3313	Calculus with Analytic Geometry III	3 hours
MAD 4203	Combinatorics and Graph Theory	3 hours
MAC 4301	Algebra Structure	3 hours
MAS 3103	Linear Algebra	3 hours



Senior Internship			
ESE 4943	Senior Student Teaching Secondary		12 hours
	Minimum Total Semester Hours Needed		120

### Bachelor of Science: Science Education—Biology

- See Undergraduate Degree Requirements
- See special college and/or department requirements

Professional Requirements			
SPC 1600	Fundamentals of Oral Communication		3 hours
STA 2014	Principles of Statistics OR		
STA 3023	Statistical Methods		3 hours
MAC 1104	College Algebra		3 hours
PSY 2013	General Psychology OR		
SYG 2000	General Sociology		3 hours
Prerequisites to Junior Internship			
EDG 4321	Teaching Strategies		4 hours
	RECOMMENDED:		
EDF 4214	Classroom Learning Principles		3 hours
Junior Internship			
ESE 3940	Junior Student Teaching Secondary		3 hours
Additional Professional Requirements			
SCE 3330	Science Instructional Analysis		4 hours
EDF 3603	Analysis of Educational Foundations		3 hours
EDG 4324	Teaching in Schools		3 hours
EDF 4214	Classroom Learning Principles		3 hours
Specialization Requirements			
BSC 2010C	General Biology		4 hours
ZOO 2010C	General Zoology		4 hours
BOT 2010C	General Botany		4 hours
PCB 3023	Molecular Cell Biology		3 hours
PCB 3063	Genetics		3 hours
PCB 3063L	Genetics Lab		1 hour
PCB 3043	Ecology		3 hours
PCB 3043L	Ecology Lab		1 hour
MCB 3013C	Microbiology		5 hours
CHM 2205	Introduction to Organic and Biochemistry		5 hours
PCB 4xxx	Biology and Evolution OR		3 hours
PCB 4683	Population Biology and Evolution		4 hours
Support Science Requirements			
CHM 2045	Chemistry Fundamentals I		4 hours
CHM 2046	Chemistry Fundamentals II		3 hours
CHM 2046L	Chemistry Fundamentals Lab		1 hour
PHY 3053C	College Physics I		4 hours
GLY 1030	Geology and its Applications		3 hours
Senior Internship			
ESE 4943	Senior Student Teaching Secondary		12 hours
	Minimum Total Semester Hours Needed		120

### Bachelor of Science: Science Education—Chemistry

- See Undergraduate Degree Requirements
- See special college and/or department requirements

Professional Requirements			
SPC 1600	Fundamentals of Oral Communication		3 hours
STA 2014	Principles of Statistics OR		3 hours
STA 3023	Statistical Methods		
MAC 1104	College Algebra		3 hours
PSY 2013	General Psychology OR		3 hours
SYG 2000	General Sociology		
Prerequisites to Junior Internship			
EDG 4321	Teaching Strategies		4 hours
	RECOMMENDED:		
EDF 4214	Classroom Learning Principles		3 hours

Junior Internship			
ESE 3940	Junior Year Student Teaching - Secondary		3 hours
Additional Professional Requirements			
SCE 3330	Science Instructional Analysis		4 hours
EDF 3603	Analysis of Educational Foundations		3 hours
EDG 4324	Teaching in Schools		3 hours
EDF 4214	Classroom Learning Principles		3 hours
Mathematics Requirements			
MAC 1114	College Trigonometry		3 hours
MAC 3311	Calculus with Analytic Geometry I		4 hours
Specialization Requirements			
Core Requirements			
CHM 2045	Chemistry Fundamentals I		4 hours
CHM 2046	Chemistry Fundamentals II		3 hours
CHM 2046L	Chemistry Fundamentals Laboratory		1 hour
CHM 3120C	Analytical Chemistry		5 hours
CHM 3210	Organic Chemistry I		3 hours
CHM 3211	Organic Chemistry II		3 hours
CHM 3211L	Organic Laboratory Techniques I		2 hours
BCH 4053	Biochemistry I		3 hours
CHM 4XXXC	Basic Physical Chemistry		4 hours
CHS 3501	Introduction to Forensic Science		3 hours
Support Science Requirements			
PHY 3053C	College Physics I		4 hours
PHY 3054C	College Physics II		4 hours
BSC 2010C	General Biology		4 hours
GLY 1030	Geology and its Applications		3 hours
Senior Internship			
ESE 4943	Senior Student Teaching - Secondary		12 hours
	Minimum Total Semester Hours Needed		120

### Bachelor of Science: Science Education—Physics

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

#### Preprofessional Requirements

SPC 1600	Fundamentals of Oral Communication		3 hours
STA 2014	Principles of Statistics OR		3 hours
STA 3023	Statistical Methods		
MAC 1104	College Algebra		3 hours
PSY 2013	General Psychology OR		3 hours
SYG 2000	General Sociology		

#### Prerequisites to Junior Internship

EDG 4321	Teaching Strategies		4 hours
	RECOMMENDED:		
EDF 4214	Classroom Learning Principles		3 hours

#### Junior Internship

ESE 3940	Junior Year Student Teaching - Secondary		3 hours
----------	--	--	---------

#### Additional Professional Requirements

SCE 3330	Science Instructional Analysis		4 hours
EDF 3603	Analysis of Educational Foundations		3 hours
EDG 4324	Teaching in Schools		3 hours
EDF 4214	Classroom Learning Principles		3 hours

#### Mathematics Requirements

MAC 3311	Calculus with Analytic Geometry I		4 hours
MAC 3312	Calculus with Analytic Geometry II		4 hours
MAC 3313	Calculus with Analytic Geometry III		4 hours
MAC 3302	Differential Equations		3 hours

#### Additional Specialization Requirements

PHY 3053C	College Physics I		4 hours
PHY 3054C	College Physics II		4 hours
PHY 3048	Physics for Engineers and Scientists I		3 hours



PHY 3048L	Physics Laboratory for Engineers and Scientists I	1 hour
PHY 3049	Physics for Engineers and Scientists II	3 hours
PHY 3049L	Physics Laboratory for Engineers and Scientists II	1 hour
PHY 3101	Modern Physics	3 hours
PHY 3752C	Physics of Scientific Instruments	4 hours
<b>Select 3 SH from the Following:</b>		
PHY 3221	Mechanics I	3 hours
PHY 3323	Electricity and Magnetism	
PHY 4604	Wave Mechanics	
<b>Select 3 SH from the Following:</b>		
PHY 3503	Thermodynamics	3 hours
PHY 4424	Optics	
<b>Select 3 SH from the Following:</b>		
PHZ 3151	Computer Methods in Physics	4 hours
PHY 3802L	Intermediate Physics Laboratory	3 hours
Support Science Requirements		
CHM 2045	Chemistry Fundamentals I	4 hours
CHM 2046	Chemistry Fundamentals II	3 hours
CHM 2046L	Chemistry Fundamentals Laboratory	1 hour
BSC 2010C	General Biology	4 hours
GLY 1030	Geology and its Applications	3 hours
Senior Internship		
ESE 4943	Senior Student Teaching - Secondary	12 hours
Minimum Total Semester Hours Needed		120

### Bachelor of Science: Social Science Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

Preprofessional Requirements

SPC 1600	Fundamentals of Oral Communication	3 hours
SYG 2000	General Sociology	3 hours
MAC 1104	College Algebra OR	3 hours
MGF 1203	Finite Mathematics	
PSY 2013	General Psychology	3 hours
Prerequisites to Junior Internship		
EDG 4321	Teaching Strategies	4 hours
RECOMMENDED:		
EDF 4214	Classroom Learning Principles	3 hours
Junior Internship		
ESE 3940	Junior Year Student Teaching - Secondary	3 hours
Additional Professional Requirements		
SSE 3333	Social Science Instructional Analysis	4 hours
EDF 3603	Analysis of Educational Foundations	3 hours
EDG 4324	Teaching in Schools	3 hours
EDF 4214	Classroom Learning Principles	3 hours
Specialization Requirements		
Lower Division Requirements:		
ECO 2013	Principles of Economics I	3 hours
ECO 2023	Principles of Economics II	3 hours
EUH 2000	Western Civilization I	3 hours
EUH 2001	Western Civilization II	3 hours
AMH 2010	U.S. History: 1492-1877	3 hours
AMH 2020	U.S. History: 1877-Present	3 hours
POS 2041	American National Government	3 hours
PSY 2013	General Psychology OR	3 hours
SYG 2000	General Sociology	
Upper Division Requirements:		
CPO 3103	Comparative Politics	3 hours
GEO 3370	Resources Geography	3 hours

GEO 3470	World Political Geography	3 hours
AMH 4231	U.S. History: 1914-1945	3 hours
AMH 4270	U.S. History: 1945-Present	3 hours
Restricted Electives (9 hrs.)		
American History (Select one)		
AMH 3370	American Economic History	3 hours
AMH 4130	American Revolution	3 hours
AMH 4170	Civil War and Reconstruction	3 hours
European History (Select one with approval of advisor.)		3 hours
Political Science (Select one)		
POS 3122	State Government and Public Policy	3 hours
POS 3273	Voting and Elections	3 hours
INR 3002	International Relations-Theory and Practice	3 hours
Senior Internship		
ESE 4943	Senior Student Teaching - Secondary	12 hours
Minimum Total Semester Hours Needed		120

## **Bachelor of Science: Vocational Education and Industry Training Business Education**

1. See Undergraduate Degree Requirements
  2. See special college and/or department requirements
- Preprofessional Requirements
- |          |                                    |         |
|----------|------------------------------------|---------|
| SPC 1600 | Fundamentals of Oral Communication | 3 hours |
| MAC 1104 | College Algebra OR                 | 3 hours |
| MGF 1203 | Finite Mathematics                 |         |
| PSY 2013 | General Psychology OR              | 3 hours |
| SYG 2000 | General Sociology                  |         |
- Prerequisites to Junior Internship
- |                   |  |         |
|-------------------|--|---------|
| Track A: EDG 4321 | Teaching Strategies  | 4 hours |
| Track B: EVT 3365 | General Methods/Testing Evaluation in Vocational Education |         |
- Junior Internship
- |          |  |         |
|----------|--|---------|
| ESE 3940 | Junior Year Student Teaching - Secondary | 3 hours |
|----------|--|---------|
- Professional Preparation (Select A or B)
- A. Area of Emphasis - Public School Teaching
- |                                   |                                     |         |
|-----------------------------------|-------------------------------------|---------|
| EDF 3603                          | Analysis of Educational Foundations | 3 hours |
| EDF 4214                          | Classroom Learning Principles       | 3 hours |
| Tech elective approved by advisor |                                     | 3 hours |
- B. Area of Emphasis - Industry Training
- |          |   |         |
|----------|---|---------|
| EVT 4169 | Curriculum Development Techniques for Industry Training | 3 hours |
| ADE 4382 | Teaching Adult Learners                                 | 3 hours |
| EME 5054 | Instructional Systems: A Survey of Applications         | 3 hours |
- Instructional Core (Select A or B)
- A. Area of Emphasis - Public School Teaching
- |          |  |         |
|----------|--|---------|
| EVT 3502 | Special Needs of Vocational Students             | 4 hours |
| EVT 4065 | Principles and Practices of Vocational Education | 4 hours |
| EDG 4324 | Teaching in Schools                              | 3 hours |
- B. Area of Emphasis - Industry Training
- |          |   |         |
|----------|---|---------|
| EVT 3502 | Special Needs of Vocational Students                  | 4 hours |
| EVT 4065 | Principles and Practices of Vocational Education      | 4 hours |
| EVT 4368 | Advanced Teaching Techniques for Vocational Education | 3 hours |
- Special Methods of Teaching
- |          |   |         |
|----------|---|---------|
| BTE 4410 | Course Construction in Business Education | 4 hours |
|----------|---|---------|
- Directed Field Experience
- |          |                                     |          |
|----------|-------------------------------------|----------|
| ESE 4943 | Senior Student Teaching - Secondary | 12 hours |
|----------|-------------------------------------|----------|
- Occupational Specialization
- |          |                        |         |
|----------|------------------------|---------|
| OST 1335 | Business Communication | 3 hours |
|----------|------------------------|---------|



OST 1110	Intermediate Typewriting	3 hours
OST 2120	Advanced Typewriting	3 hours
OST 2766	Word Perfect	3 hours
ACG 2001	Principles of Accounting I	3 hours
ACG 2011	Principles of Accounting II	3 hours
ECO 2013	Principles of Economics I	3 hours
ECO 2023	Principles of Economics II	3 hours
BUL 2111	Business Law I	3 hours

Nine (9) semester hours of upper division coursework from the College of Business Administration

Minimum Total Semester Hours

120

## Bachelor of Science: Vocational Education and Industry Training Health Occupations

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

### Preprofessional Requirements

SPC 1600	Fundamentals of Oral Communication	3 hours
MAC 1104	College Algebra OR	3 hours
MGF 1203	Finite Mathematics	
PSY 2013	General Psychology OR	3 hours
SYG 2000	General Sociology	

### Professional Preparation (Select A or B)

#### A. Area of Emphasis - Public School Teaching

EDF 3603	Analysis of Educational Foundations	3 hours
EDF 4214	Classroom Learning Principles	3 hours
	Tech elective with advisor approval	3 hours

#### B. Area of Emphasis - Industry Training

EVT 4169	Curriculum Development Techniques for Industry Training	3 hours
ADE 4382	Teaching Adult Learners	3 hours
	Tech elective with advisor approval	3 hours

### Instructional Core

EVT 3365	General Methods/Testing Evaluation in Vocation Education	4 hours
EVT 3502	Special Needs of Vocational Students	4 hours
EVT 4065	Principles and Practices of Vocational Education	4 hours
EVT 4368	Advanced Teaching Techniques for Vocation Education	3 hours

### Special Methods of Teaching

EVT 3312	Course Construction in Health Occupations Education	4 hours
----------	---	---------

### Directed Field Experience

EDG 4941	Directed Field Experience	12 hours
----------	---------------------------	----------

### Specialization (30)

1. Students must complete an *area of specialization* through (1) occupationally specific coursework and/or (2) credit by examination. Occupationally specific coursework may be lower or upper division and may be transferred from accredited educational institutions offering college credit. Credit by examination may be completed by meeting the state or national licensure or registration requirements for the student's area of specialization. A copy of current licensure/registration is required. Specialization credit must be completed before student is eligible for EDG 4941, Directed Field Experience.

2. Students must provide documentation of at least two years of occupationally related work experience *prior to graduation*.

### Electives (10)

Must be upper division courses.

Minimum Total Semester Hours

120

## Bachelor of Science: Vocational Education and Industry Training Industrial/Technical Occupations

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

### Preprofessional Requirements

SPC 1600	Fundamentals of Oral Communication	3 hours
MAC 1104	College Algebra OR	3 hours
MGF 1203	Finite Mathematics	
PSY 2013	General Psychology OR	3 hours
SYG 2000	General Sociology	

### Professional Preparation (Select A or B)

#### A. Area of Emphasis - Public School Teaching

EDF 3603	Analysis of Educational Foundations	3 hours
EDF 4214	Classroom Learning Principles	3 hours
	Tech elective with advisor approval	3 hours

#### B. Area of Emphasis - Industry Training

EVT 4169	Curriculum Development Techniques for Industry Training	3 hours
ADE 4382	Teaching Adult Learners	3 hours
	Tech elective with advisor approval	3 hours

### Instructional Core

EVT 3365	General Methods/Testing Evaluation in Vocation Education	4 hours
EVT 3502	Special Needs of Vocational Students	4 hours
EVT 4065	Principles and Practices of Vocational Education	4 hours
EVT 4368	Advanced Teaching Techniques for Vocation Education	3 hours

### Special Methods of Teaching

EVT 3371	Course Construction in Industrial Education	4 hours
----------	---	---------

### Directed Field Experience

EDG 4941	Directed Field Experience	12 hours
----------	---------------------------	----------

### Specialization (30)

1. Students must complete an *area of specialization* through (1) occupationally specific coursework and/or (2) credit by examination. Occupationally specific coursework may be lower or upper division and may be transferred from accredited educational institutions offering college credit. Credit by examination may be completed by meeting the state or national licensure or registration requirements for the student's area of specialization. A copy of current licensure/registration is required. Specialization credit must be completed before student is eligible for EDG 4941, Directed Field Experience.

2. Students must provide documentation of at least two years of occupationally related work experience *prior to graduation*.

### Electives (10)

Must be upper division courses.

Minimum Total Semester Hours

120



# COLLEGE OF ENGINEERING

## UNDERGRADUATE PROGRAMS

### ENGINEERING

- Aerospace Engineering (BSAsE)
- Civil Engineering (BSCE)
- Computer Engineering (BSCpE)
- Electrical Engineering (BSEE)
- Environmental Engineering (BSEnvE)
- Industrial Engineering (BSIE)
- Mechanical Engineering (BSME)

### ENGINEERING TECHNOLOGY

- Computer Engineering Technology (BSET)
- Design Engineering Technology (BSET)
- Electronics Engineering Technology (BSET)
- Information Systems Engineering Technology (BSET)
- Operations Engineering Technology (BSET)

## GRADUATE PROGRAMS\*

### ENGINEERING

- Civil Engineering (MSCE, MCE, Ph.D.)
- Computer Engineering (MSCpE, Ph.D.)
- Computer Integrated Manufacturing (MS)
- Electrical Engineering (MSEE, Ph.D.)
- Engineering (MS)
- Engineering Management (MS)
- Environmental Engineering (MSEnvE, Ph.D.)
- Industrial Engineering (MSIE, Ph.D.)
- Industrial Engineering/Manufacturing Engineering (MSMfgE)
- Mechanical Engineering (MSME, Ph.D.)
- Operations Research (MS)
- Product Assurance (MS)
- Simulations Systems (MS)

\*See the Graduate Studies Catalog for information.

# COLLEGE OF ENGINEERING

**Dean:** *G. E. Whitehouse*, ENGR 107, Phone (407) 823-2156

**Associate Dean:** *S. L. Rice*, ENGR 107, Phone (407) 823-2156

**Director of Graduate Affairs:** *F. S. Gunnerson*, ENGR 281, Phone (407) 823-2455

**Associate Dean:** *R. N. Miller*, ENGR 281, Phone (407) 823-2455

**Director of Undergraduate Affairs:** *J.K. Beck*, ENGR 281, Phone (407) 823-2455

## PROFESSIONAL COLLEGE OF ENGINEERING

Based on a broad unified core program, the College of Engineering at the University of Central Florida seeks to produce well-qualified graduates in specifically selected professional disciplines. The College also conducts research and service responsive to Florida and national needs.

## ENGINEERING CURRICULUM

The Engineering curriculum is directed toward professional objectives which are best met by completing the baccalaureate degree program followed by additional professional education at the graduate level leading to the Master of Science in Engineering.

### Requirements:

Students who wish to be admitted to full freshman standing in the College should present the following secondary school credits in addition to the minimum University requirements:

- a total of 3½ units in mathematics, including advanced algebra, geometry, and trigonometry (required)
- calculus (recommended)
- at least one unit in physics (required)
- at least one unit in chemistry (required)
- one unit in biology (recommended)
- one-half unit in computer programming (FORTRAN preferred).

Students who have not met the requirements listed above may be required to complete additional University credit course work which may not be applied toward an engineering degree.

Students receiving a Bachelor of Science in Engineering must successfully complete 132 semester hours of coursework including:

- general education courses (2.000 GPA required)
- a pre-engineering core curriculum (2.250 GPA required)
- an engineering core curriculum (2.250 GPA required)
- required and elective courses in an engineering option of the student's choice (2.250 GPA required)

### Transfer Credit

Subject to the general grade and residence requirements of the University, provisional credit will be granted for transferred course work equivalent to that required in UCF's engineering program. These provisional credits will become final only after the student has demonstrated the ability to do satisfactory work at the University. Transfer credits in pre-engineering from a junior college will be used to satisfy freshman and sophomore-level requirements only. Typically, students who have completed the A.A. degree (or equivalent education) with calculus, differential equations, chemistry, physics, engineering graphics, and a course in computer science (with FORTRAN) can complete the B.S.E program in two additional years. The status of a student and the specific credits acceptable toward the degree is determined by a College of Engineering petition approved by the Dean's office.

### Student Performance

Prior to enrolling in courses at the professional level, students must receive approval from the office of the Dean of Engineering, and secure an approved course of study from their advisor for their remaining work.

Any student whose written or spoken English in any course is unsatisfactory may be reported by the instructor to the Dean. The Dean may assign supplementary work, including additional course work, consistent with the needs of the student. The granting of a degree may be delayed until the work is satisfactorily completed.



### ROTC Program

The College offers a special five-year program to engineering students also enrolled in Air Force ROTC. This plan allows those students to spread their academic load over a five-year period to accommodate certain AFROTC courses which are not creditable to the engineering degree.

### ENGINEERING TECHNOLOGY CURRICULUM

Students receiving a Bachelor of Science in Engineering Technology must successfully complete 128 semester hours including:

- general education courses
- an engineering technology core curriculum
- required and elective courses in a selected engineering technology option of the student's choice.

The engineering technology program provides upper level instruction for junior and senior-year students. Students who wish to be admitted to one of the engineering technology options should possess the A.A. degree (preferred) or an A.S. (or equivalent education) degree from a Florida public college or approved out-of-state institution in an appropriate engineering technology area. Prospective transfer students not holding the A.A./A.S. degree from a Florida public college may be considered on an individual basis, and should consult the "Transfer Applicants" portion of the Undergraduate Catalog for additional information. In all cases the status of a student and the specific credits acceptable toward the degree is determined by a College of Engineering petition approved by the Dean's office.

### MINOR: SPACE STUDIES

**Contact Person:** *E.R. Hosler*, ENGR 381, Phone (407) 823-2416

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. Program requirements include a grade point average of at least 2.00 and a minimum of 21 credit hours, including three required courses and four elective courses.

#### Required courses:

AST XXXX	Astronomy
GEO 4140	Remote Sensing of the Environment
PUP 3510	Introduction to Space Studies

#### Elective courses:

EAS 3010	Fundamentals of Flight
EAS 3101	Aerodynamics I
EAS 3530	Space Systems
EAS 4505	Orbital Mechanics
EGN 4830	Telecommunications
GEO 1200	Physical Geography
GEO 3370	Resources Geography
GEO 4141	Geographic Information Systems
INR 4404	Space Law
PET 4351	Applied Exercise and Human Physiology
PUP 4510	Space Policy
SCE 5825	Space Science for Educators

Completion of the Minor in Space Studies may involve course work in addition to the minimum requirements of some major programs. Students should consult with their academic advisors to confirm that all of the departmental and college degree requirements for their majors are being met.

Formal enrollment should occur before nine credit hours have been completed. To obtain information and to enroll in the Minor, students should contact Dr. E. R. Hosler, Associate Chair, Department of Mechanical and Aerospace Engineering, Engr 381, (407) 823-2416.

## MINOR: TECHNOLOGY AND SOCIETY

Contact Persons: *Richard N. Miller*, ENGR 281, Phone (407) 823-2455

*J. Paul Hartman*, ENGR 308, Phone (407) 823-2317

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. To meet the requirements, the student must complete, with a grade point average of 2.0 or higher, a minimum of 18 hours taken from the courses listed. A minimum of 9 hours must be taken from the EGN prefix courses listed below. Students should preferably complete the following general education program coursework prior to taking this minor: ECO 2013, MAC 1104; History or Humanities sequence.

The 18 hours are to be selected from:

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 4830	Telecommunications
EGN 4825	Environment and Society
EGN 4832	Computers, Cybernetics and Society
EGN 4843	Systems Modeling
EGN 4844	Man and Machine
ARH 3060	History of Architecture
GEO 3370	Resource 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

## Bachelor of Science in Engineering

Program Coordinator: *Richard N. Miller*, ENGR 281, Phone (407) 823-2455.

The principal areas of study in the engineering curriculum are devoted to the basic sciences, mathematics, the fundamentals of engineering problem solving, and specialization in an option. These courses are not training courses for any of the mechanical or manipulative skills, but rather are planned to provide preparation for development, planning, design, research, graduate work, and with certain electives, for operation, production, testing, maintenance, and management. This program prepares the student for professional registration, industrial employment, and the pursuit of graduate work in engineering. In addition, basic engineering programs are increasingly being considered as appropriate preparation for advanced study in other professional areas, e.g., law, medicine, architecture.

## ENGINEERING CORE REQUIREMENTS<sup>1</sup>

The engineering core consists of pre-engineering and professional subject matter that is common to all options. Because this requirement is a substantial part of the Bachelor's degree program, it gives the student time to become adjusted and to choose a field of specialization for which he or she is best suited.

### PRE-ENGINEERING CORE<sup>1</sup>

ECO 2013	Principles of Economics I	3 hours
EGS 1111C	Engineering Graphics	2 hours
CHS 1440	Fundamentals of Chemistry For Engineers <sup>2,3</sup>	4 hours

<sup>1</sup>Includes portions of the General Education Program.

<sup>2</sup>Consult Department Chair for specific course required in option.

<sup>3</sup>Students without one secondary school unit of Chemistry should enroll in CHM 1034 and CHM 2046L prior to taking CHS 1440. Not for Environmental Engineering students.



PHY 3048	Physics For Engineers and Scientists I <sup>4</sup>	3 hours
PHY 3049	Physics For Engineers and Scientists II	3 hours
PHY 3048L or PHY 3049L or CHM 2046L	Laboratory Elective <sup>2</sup>	1 hour
MAC 3311,3312,3313	Calculus and Analytic Geometry	12 hours
MAP 3302	Differential Equations	3 hours
Biological or Earth Science	Elective <sup>2</sup>	3 hours

### ENGINEERING CORE

EGN 3420	Engineering Analysis <sup>5</sup>	3 hours
EGN 3310	Engineering Analysis - Statics	3 hours
EGN 3321	Engineering Analysis - Dynamics	3 hours
EGN 3613	Engineering Economic Analysis	2 hours
EGN 3704	Engineering and the Environment	2 hours
EGN 3365C	Structure and Properties of Materials	3 hours
EGN 3373	Principles of Electrical Engineering	4 hours
EGN 3343	Thermodynamics <sup>2</sup>	3 hours
or		
EGN 3358	Thermo-Fluids Heat Transfer <sup>2</sup>	3 hours
EGN 4624	Engineering Administration	3 hours
PHY 3101	Modern Physics <sup>7</sup>	3 hours
STA 3032	Probability and Statistics for Engineers	3 hours

### DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

**Chair:** A.E. Radwan, ENGR 307, Phone (407) 823-2841

**Faculty:** Block, Carroll, Cooper, Dietz, Hartman, Head, Jenkins, Kunnath, Kersten, Kuo, Leftwich, Radwan, Reinhart, J. Taylor, Wanielista, Wayson, Yousef

The Department of Civil and Environmental Engineering offers a major in Environmental Engineering and a major in Civil Engineering. The Environmental Engineering major is concerned primarily with the interaction of humans with their environment, and the planning, design, and control of systems for environmental quality management, for water, land and air environment. The Civil Engineering major is primarily concerned with fundamental civil engineering design and analysis in such areas as structures, geotechnical engineering, sanitary engineering, water resources, and transportation.

The undergraduate degree programs in Civil Engineering and Environmental Engineering are accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET).

### Bachelor of Science in Civil Engineering

#### Degree Requirements

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements—See Engineering Core
3. Take the National Council of Engineering Examiners (NCEE) Fundamentals of Engineering (FE) Examination.
4. Required Courses

CES 4102	Structural Engineering Analysis	3 hours
CES 4130L	Structures Lab	1 hour
CES 4605	Structural Steel Design	3 hours
or		
CES 4702	Structural Concrete Design	4 hours
CEG 4101C	Geotechnical Engineering I	4 hours
EGN 3331	Mechanics of Materials	3 hours
EGN 3353	Fluid Mechanics	3 hours
CGN 4300	C.E. Systems	3 hours

<sup>4</sup>Students without one secondary school unit of Physics should enroll in PHY 2053C prior to taking PHY 3048.

<sup>5</sup>Requires a secondary school programming course (FORTRAN preferred).

<sup>6</sup>Consult Department Chair for specific course required in option.

<sup>7</sup>Or approved science course - see option

CWR 4101C	Hydrology	3 hours
CWR 4201C	Hydraulics	3 hours
ENV 4561	Environmental Engineering Process Design	4 hours
TTE 4004	Transportation Engineering	3 hours
Civil Engineering Design Courses(2 hours each)		4 hours
	(Select from CES 4608, CES 4709, CEG 5805, TTE 4601, ENV 4433 or ENV 4562).	

5. Restricted Electives  
 Technical Electives are to be courses consistent with department objectives and chosen with the approval of the student's faculty advisor and department chair. 5 hours

6. Electives  
 None

Total Semester Hours Required 132

## Bachelor of Science in Environmental Engineering

### Degree Requirements

- See Undergraduate Degree Requirements
- Special college and/or department requirements—See Engineering Core
- Take the National Council of Engineering Examiners (NCEE) Fundamentals of Engineering (FE) Examination.

4. Required Courses

EES 4202C	Chemical Process Control	3 hours
EES 4111C	Biological Process Control	3 hours
EGN 3331	Mechanics of Materials	3 hours
EGN 3353	Fluid Mechanics	3 hours
EGN 4703	Systems Analysis and Control	3 hours
ENV 4121C	Air Pollution	3 hours
ENV 4341	Solid and Hazardous Waste	3 hours
CWR 4101C	Hydrology	3 hours
CWR 4201C	Hydraulics	3 hours
ENV 4433	Water Resources Design	2 hours
ENV 4562	Environmental Engineering Systems Design	2 hours
ENV 4561	Environmental Engineering Process Design	4 hours

5. Restricted Electives  
 Technical Electives are to be courses consistent with department objectives and chosen with the approval of the student's faculty advisor and department chair. 7 hours

6. Electives  
 None

Total Semester Hours Required 132

## COMPUTER ENGINEERING

### Administered by the Department of Electrical Engineering

Faculty: Bauer, Gonzalez, Khajenoori, Klee, Linton, Myler, Petrasko, Weeks, Williams

The Department of Computer Engineering prepares the student for a career in professional engineering practice or advanced graduate study. Graduates will possess a high degree of training and capability in the application of mathematics and computers to the modeling, simulation, and management of complex technical problems.

The undergraduate degree program in Computer Engineering is accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET).

## Bachelor of Science in Computer Engineering

### Degree Requirements

- See Undergraduate Degree Requirements
- See special college and/or department requirements—See Engineering Core
- Required Courses

ECM 4230	Engineering Data Structures	3 hours
----------	-----------------------------	---------



ECM 4301	Engineering Applications of Computer Methods	3 hours
ECM 4504C	Embedded Computer Systems	4 hours
ECM 4708C	Linear Controls and Simulation	4 hours
ECM 4804	Engineering Software Design	3 hours
EEL 3342C	Introduction to Digital Circuits and Systems	4 hours
ECM 4508C	Computer Systems Design I	3 hours
ECM 4509C	Computer Systems Design II	4 hours
COT 3100	Introduction to Discrete Structures	3 hours
ECM 3000L	Survey of Computer Engineering	1 hour
ECM 4451	Engineering Applications of Intelligent Systems	3 hours
ECM 4723C	Computer Control Systems	4 hours
4. Restricted Electives		
Technical Electives are to be courses consistent with department objectives and chosen with the approval of the student's faculty advisor and department chair.		3 hours
Total Semester Hours Required		132

## DEPARTMENT OF ELECTRICAL ENGINEERING

**Chair:** N. S. Tzannes, ENGR 407, Phone (407) 823-2786

**Faculty:** Alsaka, Batarseh, Bass, Belkerdid, Boreman, Brown, Christodoulou, Dixon, Georgiopoulos, Guenther, Harden, Harris, Harvey, Johnson, Kasparis, Liou, Malocha, Mathews, Mikhael, R. Miller, Moharam, Mortazawi, R. Phillips, Qu, Richie, Soileau, Sundaram, Szaier, Wahid, Yuan.

The major in Electrical Engineering is designed to present the basic electrical engineering principles. Courses are offered which present in-depth studies of specific electrical engineering sub-disciplines such as digital systems, electrical networks, electronics, electromagnetic fields and microwaves, control systems, communication systems and information theory, and solid state systems and devices.

The undergraduate degree program in Electrical Engineering is accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET).

## Bachelor of Science in Electrical Engineering

### Degree Requirements

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements—See Engineering Core
3. Required Courses

EEL 3122C	Electrical Networks	4 hours
EEL 3306	Semiconductor Devices	3 hours
EEL 3307C	Electronics I	4 hours
EEL 3342C	Introduction to Digital Circuits and Systems	4 hours
EEL 3470	Electromagnetic Fields	3 hours
EEL 3552C	Signal Analysis and Communications	4 hours
EEL 4012C	Senior Electrical Design	4 hours
EEL 4309C	Electronics II	4 hours
ECM 4508C	Computer System Design I	3 hours
EEL 3657	Linear Control Systems	3 hours
EEL XXXX	EEL Elective	3 hours
EEL XXXX	EEL Elective	3 hours
4. Electives		
None		
Total Semester Hours Required		132

## DEPARTMENT OF INDUSTRIAL ENGINEERING & MANAGEMENT SYSTEMS

**Chair:** *W. Swart*, ENGR 307, Phone (407) 823-2204

**Faculty:** *Armocost, Biegel, Elshennawy, Hosni, Lee, Mollaghasemi, Morse, Mullens, Rogers, Parkinson, Schrader, Sepulveda, Whitehouse*

Industrial engineers design systems which translate a specific product design into a physical reality in the most productive manner and with highest quality possible. 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 sought in industrial, 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.

The undergraduate degree program in Industrial Engineering is accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET).

### Bachelor of Science in Industrial Engineering

#### Degree Requirements

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements—See Engineering Core
3. Required Courses

EIN 3314C	Work Measurement and Design	3 hours
EIN 3XXX	Principles of Cost Engineering	3 hours
EIN 4116C	Information Systems Analysis and Design	3 hours
EIN 4118C	Industrial Engineering Applications of Computers	3 hours
EIN 4333C	Industrial Control Systems	3 hours
EIN 4364C	Industrial Facilities Planning and Design	3 hours
EIN 4391C	Manufacturing Engineering	3 hours
EIN 4891C	Senior Design Project	3 hours
ESI 4234	Quality Engineering	3 hours
ESI 4312	Operations Research	3 hours
ESI 4523C	Systems Simulation	3 hours

4. Technical Electives

Technical Electives are to be courses consistent with department objectives and chosen with the approval of the student's faculty advisor and department chair.

9 hours

5. Electives

None

Total Semester Hours Required

132

### DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING

**Chair:** *D. W. Nicholson*, ENGR 381, Phone (407) 823-2416

**Faculty:** *Anderson, J. Beck, R. Byers, Bishop, Chew, Desai, Eno, Grogan, Gunnerson, Hagedoorn, Hosler, Kassab, K. Lin, Minardi, Moslehy, Nayfeh, Nicholson, Nuckolls, Rice, W. Smith, Ventre*

The Department of Mechanical and Aerospace Engineering offers majors in Mechanical and Aerospace Engineering. Both programs are specifically designed to give the student a



broad-based undergraduate engineering program which provides sufficient knowledge to allow him/her to converse with specialists in other fields of engineering and to analyze the basic problems in these fields. The undergraduate degree programs in Mechanical Engineering and Aerospace Engineering are accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET).

## Bachelor of Science in Aerospace Engineering

### Degree Requirements

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements—See Engineering Core

### 3. Required Courses

EAS 3010	Fundamentals of Flight	4 hours
EAS 3101	Aerodynamics	3 hours
EAS 3800	Junior Aerospace Laboratory I	2 hours
EAS 3810	Junior Aerospace Laboratory II	2 hours
EGN 3331	Mechanics of Materials	3 hours
EAS 3530	Space Systems	3 hours
EML 4312	Feedback Control Design	3 hours
EAS 4105	Flight Mechanics	3 hours
EAS 4200	Flight Structures	3 hours
EAS 4134	High Speed Aerodynamics	3 hours
EAS 4300	Aerothermodynamics of Propulsion Systems	3 hours
EAS 4700	Aerospace Design I	4 hours
EAS 4710	Aerospace Design II	4 hours

### 4. Restricted Electives

Technical electives are chosen from courses normally taught by the department with the prefixes EAS, EML, and EMA. Students who wish to enroll in a 5xxx course should have a minimum UCF GPA of 2.8 and consent of the instructor.

6 hours

Total Semester Hours Required

136

## Bachelor of Science in Mechanical Engineering

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements—See Engineering Core

### 3. Required Courses

EGN 3331	Mechanics of Materials	3 hours
EGN 3353	Fluid Mechanics I	3 hours
EML 3101	Thermodynamics of Mechanical Systems	3 hours
EML 3262	Kinematics of Mechanisms	3 hours
EML 3500	Machine Design and Analysis	3 hours
EML 4142	Heat Transfer	3 hours
EML 4220	Vibration Analysis	3 hours
EML 4304C	Measurements Laboratory	3 hours
EML 4312	Feedback Control Design	3 hours
EML 4501C	Engineering Design I	3 hours
EML 4502C	Engineering Design II	3 hours
EML 4703	Fluid Mechanics II	3 hours

### 4. Restricted Electives

Technical electives are chosen from courses normally taught by the department with the prefixes EMA, EML, EAS, and ENU. Students who wish to enroll in a 5xxx course should have a minimum UCF GPA of 2.8 and consent of the instructor.

6 hours

Total Semester Hours Required

132

## DEPARTMENT OF ENGINEERING TECHNOLOGY

**Chair:** J. D. McBrayer, ENGR 207, Phone (407) 823-2268

**Faculty:** W. Byers, Debo, Denning, Dixon, Gregg, McBrayer, Osborne, Queen, Shaykhan, Strange, Vazquez, Worbs

Engineering Technology is the profession in which a knowledge of the applied mathematical and natural sciences gained by higher education, experience, and practice is devoted to application of engineering principles and the implementation of technological advances for the benefit of humanity. Engineering Technology education at UCF is broad in nature, focusing primarily on analyzing, applying, implementing and improving existing technologies and is aimed at preparing graduates for the practice of engineering closest to the product improvement, manufacturing, and engineering operational functions. This education enhances the graduate's potential for accepting a wide variety of professional opportunities, for lifelong learning, and for future career advancement.

The five Technology options presently offered in the Engineering Technology degree program are:

- Computer Engineering Technology<sup>a</sup>
- Design Engineering Technology<sup>a</sup>
- Electronics Engineering Technology<sup>b</sup>
- Information Systems Engineering Technology<sup>c</sup>
- Operations Engineering Technology<sup>b</sup>

Major curricula revisions are presently being evaluated. Prospective students should contact the department at (407) 823-2268 for current information.

The engineering technology core courses are available at both the Orlando and the Brevard campuses.

The Bachelor of Science in Engineering Technology is intended for students who have completed an Associate of Arts (A.A.) degree with approximately 24 semester hours in an appropriate area of technology or who have completed an Associate of Science (A.S.) degree in an appropriate area of technology. Potential transfer students who do not hold an Associate degree from a Florida public college will be considered on an individual basis, and should consult the "Transfer Applicants" portion of the Undergraduate Catalog for additional information. Students entering any of the curricula in Engineering Technology should be aware that some lower level technical courses are normally not available at UCF and should be taken at the community college.

### Requirements

Completion of UCF's General Education is required before the BSET degree is granted. If a student completes the General Education Program of a Florida public community college, it will substitute for UCF's Lower Division General Education Program without a course-by-course match. Students should consult an advisor for specific course requirements.

<sup>a</sup>This option is available only at the Orlando campus.

<sup>b</sup>This option is available at the Orlando campus and at the Brevard Area campus.

<sup>c</sup>This option is available only at the Brevard Area campus.

## Bachelor of Science in Engineering Technology

### Degree Requirements

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements—See Engineering Technology Core below
3. Required Courses

- A. General Education (Not including Math, Science and Computer Programming) 27 hours
- B. Required Lower Division Technical Courses or Equivalent. See areas of specialization below. 2-21 hours
- C. Engineering Technology Core
  - \*MAC 1104 College Algebra 3 hours
  - \*MAC 1114 College Trigonometry 3 hours
  - \*MAC 2311/MAC 3311 or MAC 3253 Calculus I 3 hours
  - \*MAC 2312/MAC 3312 or MAC 3254 Calculus II 3 hours

\*May be taken at a community college



MAP 3401 Problem Analysis	3 hours
*PHY 2053C/PHY 3053C College Physics I (with lab)	4 hours
*CHM 1xxxC General Chemistry (with lab)	4 hours
*Anthropology, *Biology, *Botany, *Geology, *Physical Geography	3 hours
*COP 1200, *COP 2500, CGS 3422	3 hours
ETG 3541 Applied Mechanics	4 hours
ETI 3651C Computer Applications	4 hours
ETI 3671 Technical Economic Analysis	2 hours
ETI 4110 Industrial Quality Control	3 hours
ETM 4331 Applied Thermodynamics and Fluid Mechanics	4 hours
*May be taken at a community college	
SUBTOTAL	46 hours
D. Technical Specialty (Upper Division Major Courses)	
See areas of specialization below.	26-32 hours
E. Approved Elective hours. See areas of specialization below.	5-22 hours
<b>MINIMUM TOTAL SEMESTER HOURS</b>	<b>128 hours</b>
(60 semester hours minimum senior institution credits- 12 of which may be waived for students enrolled at area campuses.)	

## AREAS OF SPECIALIZATION

### 1. Computer Engineering Technology (CpET)

**Program Coordinator:** John C. Debo

"The Computer Engineering Technology specialty emphasizes microcomputer and microprocessor based system hardware and system level software." Typical functions eventually performed by graduates include PC coordinator, computer applications coordinator, systems integrator, system analyst, and hardware and software designer. Graduates may work in such areas as manufacturing, test, design, product improvement, and automated processing. Typical community college programs for entrance include: Computer Technology, Computer Science, Computer Programming, and Electrical/Electronics Technologies.

The total CpET program consists of a combination of lower level courses, normally taken at a community college (courses numbered 1xxx, 2xxx) and UCF upper level courses (numbered 3xxx, 4xxx).

Lower Level Technical Required courses (17 semester hours)

EET 1xxxC	DC Circuits with lab	3 hours <sup>1</sup>
EET 1xxxC	AC Circuits with lab	3 hours <sup>1</sup>
CET 2xxxC	Digital Circuits with lab	3 hours <sup>1</sup>
CET 2xxxC (3123C)	Intro. Microprocessors lab	3 hours <sup>1</sup>
ENC 1xxxC	Technical Writing	3 hours <sup>1</sup>
EGS 1xxx	Drafting	2 hours <sup>1</sup>
COP 1xxxC	High level language pgming (in core)	(3 hours)

<sup>1</sup>Actual hours for these courses may vary depending upon course transferred.

Upper Level Technical Required Courses (17 semester hours)

CET 3144C	Applied Microprocessor Technology	4 hours
CET 3303	Microcomputer Technology I	3 hours
CET 4188	Microcomputer Technology II	4 hours
CET 4915	Senior Design Project	2 hours
CET 3198C	Digital Systems	4 hours

Upper Level Technical Elective Courses (11 semester hours minimum)

Courses must be selected so that the combination of lower and upper-level courses provide a *balance of hardware and software orientation* (other technical elective courses may be selected with the approval of the program coordinator).

CET 4131C	Microprocessor Electronics II	4 hours
CET 4333C	Applied Computer Systems I	4 hours
CET 4334C	Applied Computer Systems II	4 hours
CET 4931	Current Topics in Technology	3 hours
CET 3364	Systems Applications in C	3 hours
EET 3716	Network Analysis	3 hours
ETI 4186	Applied Reliability	3 hours

Approved electives to bring total to 128 semester hours (10 hours)

## 2. Design Engineering Technology (DET)

**Program Coordinator:** Joseph H. Dixon, Jr.

The specialization in Design Engineering Technology provides advanced coursework in preparation of employment at the Baccalaureate level in the fields of manufacturing, testing and fabrication of mechanical parts, mechanical drafting, and building construction. Typical community college programs for entrance include those in Drafting and Design, Mechanical, Civil, and Building Construction Technologies.

The total DET program consists of a combination of lower level courses, normally taken at a community college (courses numbered 1xxx, 2xxx) and UCF upper level courses (numbered 3xxx, 4xxx).

Lower Level Technical Required Courses (5 semester hours)

EDT 1xxxC	Engineering Drawing/Drafting/Graphics	5 hours
Upper-Level Technical Required Courses (25 semester hours)		
CET 3123C	Microprocessor Electronics I	3 hours
EET 3035C	Electricity and Electronics	4 hours
EST 4502C	Electro-Mechanical Design	3 hours
ETG 4530C	Strength of Materials	4 hours
ETG 4950	Senior Design Project	2 hours
ETI 3421	Materials and Processes	3 hours
ETM 4403C	Applied Kinematics	3 hours
ETM 4512C	Applied Design of Machine Elements	3 hours

Upper-Level Technical Electives (7 semester hours minimum)

(other technical elective courses may be selected with approval of the program coordinator.)

ETC 4241C	Construction Methods, Contracts & Specs.	4 hours
ETC 4414C	Applied Structural Design I	3 hours
ETC 4415C	Applied Structural Design II	3 hours
CET 4131C	Microprocessor Electronics II	4 hours
ETI 4522C	Applied Automated Systems	3 hours
ETM 4755	Applied Air Conditioning	3 hours
ETM 4220	Applied Energy Systems	2 hours
ETD 3350C	Applied CADD	3 hours

Approved electives to bring total to 128 semester hours (18 hours)

## 3. Electronics Engineering Technology (EET)

**Program Coordinator:** William S. Byers

The program in Electronics Engineering Technology provides advanced level courses in preparation for employment in electronics at the Baccalaureate level. Graduates may work in such diverse fields as aerospace, medical instrumentation, computers, radio and television broadcasting, telecommunications, military electronics, consumer products, and education. They may be involved in applied design, product development, manufacturing, production, and operations, as well as in such activities as field engineering, sales, marketing, and technical services.

The total EET program consists of a combination of lower level courses, normally taken at a community college (courses numbered 1xxx, 2xxx) and UCF upper level courses (numbered 3xxx, 4xxx). A minimum of ten (10) courses which include laboratory are required for award of the BSET in the Electronics Engineering Technology option.

Lower Level Technical Required Courses (21 semester hours)

EET 1xxxC	DC Circuits with lab	4 hours <sup>1</sup>
EET 1xxxC	AC Circuits with lab	4 hours <sup>1</sup>
EET 1xxxC (3143C)	Electronic Devices and Circuits with lab	4 hours <sup>1</sup>
CET 2xxxC (3123C)	Microprocessor Electronics I with lab	3 hours <sup>1</sup>
CET 2xxxC	Digital Fundamentals with lab	3 hours <sup>1</sup>
ENC 2xxx (3241)	Technical Report Writing	3 hours

<sup>1</sup>Actual hours for these courses may vary depending upon course transferred.

Upper-Level Technical Required Courses (22 semester hours)

CET 3303	Microcomputer Technology I	3 hours
CET 3198C	Digital Systems	4 hours
EET 3716	Network Analysis	3 hours
EET 4158C	Linear Integrated Circuits	3 hours



EET 4329C	Electronic Communications I	3 hours
EET 4349C	Electronics Communications II	3 hours
EET 4732	Feedback Control Systems	3 hours

Upper-Level Technical Electives (5 semester hours minimum) (other technical elective courses may be selected with the approval of the program coordinator).

(Select 2 courses from the following)

CET 4131C	Microprocessor Electronics II	4 hours
CET 4333C	Applied Computer Systems I	4 hours
CET 4381	Digital Signal Processing	3 hours
CET 4931	Current Topics in Technology	3 hours
CET 4915	Senior Design Project	2 hours
EET 4339C	Antennas & Propagation	3 hours
EET 4389C	Satellite Communications	3 hours
EET 4548	Power Transmission	3 hours
ETI 4186	Applied Reliability	3 hours

Approved electives to bring total to 128 semester hours (7 hours)

#### 4. Information Systems Engineering Technology (ISET)

**Program Coordinator:** G. Ali Shaykhian

The specialization in Information Systems Engineering Technology provides advanced level courses in preparation for employment in computer systems programming, programmer/analyst and technical systems analysis. Typical community college programs for entrance include those in Computer Information Systems, Computer Science and Computer Programming.

The total ISET program consists of a combination of lower level courses, normally taken at a community college (courses numbered 1xxx, 2xxx) and UCF upper level courses (numbered 3xxx, 4xxx).

Lower Level Technical Required Courses (21 semester hours)

COP 1xxx	Pascal Programming	3 hours <sup>1</sup>
COP 1xxx	Pascal Programming - Advanced	3 hours <sup>1</sup>
COP 2xxx	Cobol Programming	3 hours <sup>1</sup>
COP 2xxx	Cobol Programming - Advanced	3 hours <sup>1</sup>
COP 1xxx	Fortran Programming (in core)	(3 hours)
COP 1xxx	Fortran Programming - Advanced	3 hours <sup>1</sup>
COP 2xxx	Assembler Programming	3 hours <sup>1</sup>
ENC 2xxx (3241)	Technical Report Writing	3 hours

<sup>1</sup>Actual hours for these courses may vary depending upon course transferred.

Upper-Level Technical Required Courses (27 semester hours)

CET 3123C	Microprocessor Electronics I	3 hours
CET 3303	Microcomputer Technology I	3 hours
CET 3323C	Computer Organization Technology	3 hours
CET 3383	Applied Systems Analysis I	3 hours
CET 4427	Applied Database Systems	3 hours
CET 4505	Applied Microcomputer Operating Systems	3 hours
CET 4523	Applied Systems Analysis II	3 hours
CET 4915	Senior Design Project	2 hours
EET 3035C	Electricity and Electronics	4 hours

Upper/Lower Level Technical electives to bring total to 128 semester hours (7 semester hours) (other technical elective courses may be selected with the approval of the program coordinator).

ACG 2xxx	Principles of Financial Accounting
CGS 1xxx	Computer Management Information Systems
CIS 2xxx	System Analysis and Design
COP 1xxx	C Programming
COP 1xxx	Introduction to Data Processing
COP 2xxx	Assembler Programming-Advanced
COP 2xxx	Introduction to Database Techniques
CET 4361	Applied Computer Graphics in Technology
CET 4429	Applied Database II
CET 4527	Applied Operating Systems II
ETI 4186	Applied Reliability
MAN 2xxx	Business Management Principles

## 5. Operations Engineering Technology (OET)

**Program Coordinator:** Richard G. Denning

The Operations Engineering Technology program provides advanced coursework to prepare the Baccalaureate graduates for professional careers in technical management and operations in the manufacturing, sales, service, and construction industries. The curriculum offers required sequential courses in industrial/manufacturing operations and process controls with electives in: automation, sales, safety, construction and energy. The program is designed to accept transfer students from a broad range of associate degree technology programs including Architectural, Building Construction, Aviation, Civil, Computer, Drafting, Fire Science, Quality Control, and Surveying.

The total OET program consists of a combination of lower level courses, normally taken at a community college (courses numbered 1xxx, 2xxx) and UCF upper level courses (numbered 3xxx, 4xxx).

Lower Level Technical Required Courses (2 semester hours)

ETD 1xxxC or EGS 1111C Engineering Drawing/Drafting/Graphics 2 hours

Upper Level Technical Required Courses (26 semester hours)

CET 3123C Microprocessor Electronics I 3 hours

CET 4131C Microprocessor Electronics II 4 hours

EET 3035C Electricity and Electronics 4 hours

ETG 4950 Senior Design Project 2 hours

ETI 3421 Materials and Processes 3 hours

ETI 4186 Applied Reliability 3 hours

ETI 4661 Applied Facilities Planning and Design 3 hours

ETI 4640 Process Planning and Work Measurement 4 hours

Upper-Level Technical Electives (5 semester hours) (other technical electives may be selected with approval of the program coordinator).

EST 4502C Electro-Mechanical Design 3 hours

ETC 4241C Construction Methods, Contracts, and Specifications 4 hours

ETI 3690 Technical Sales 2 hours

ETI 4522C Applied Automated Systems 3 hours

ETI 4700 Occupational Safety 2 hours

ETM 4220 Applied Energy Systems 2 hours

ETM 4755 Applied Air Conditioning 3 hours

Approved electives to bring total to 128 semester hours. (22 hours)





# COLLEGE OF HEALTH AND PUBLIC AFFAIRS

## UNDERGRADUATE PROGRAMS

- Cardiopulmonary Sciences (BS)
- Communicative Disorders (BA/BS)
- Criminal Justice (BA)
- Health Services Administration (BS)
- Legal Studies (BA)
- Medical Laboratory Sciences (BS)
- Medical Record Administration (BS)
- Molecular Biology and Microbiology (BS)
- Nursing (BSN)
- Public Administration (BA)
- Physical Therapy (BS)
- Radiologic Sciences (BS)
- Social Work (BSW)

## PREPROFESSIONAL PROGRAMS

- Prechiropractic
- Pre dental
- Pre medical
- Pre optometry
- Pre pharmacy
- Pre podiatry
- Pre veterinary

## GRADUATE PROGRAMS\*

- Communicative Disorders (MA)
- Health Sciences (MS)
- Molecular Biology and Microbiology (MS)
- Public Administration (MPA)
- Social Work (MSW)

## OTHER PROGRAMS

- Gerontology Certification Program

\*See the Graduate Studies catalog for information.

# COLLEGE OF HEALTH AND PUBLIC AFFAIRS

**Dean:** *Belinda R. McCarthy*, HP 214, Phone (407) 823-2352

**Associate Dean:** *Wendell C. Lawther*, HP 215

**Associate Dean:** *M. Jo Edwards*, HP 214

The mission of the College of Health and Public Affairs is to provide quality undergraduate and graduate education, to foster, through research, the development and transmission of knowledge, and to offer continuing education for community professionals and citizens.

To achieve these objectives, the College offers a diversity of programs preparing students for professions in the fields of Communicative Disorders, Criminal Justice, Legal Studies, Health Sciences, Nursing, Physical Therapy, Public Administration, and Social Work.

## ADVISEMENT

**Advisor/Counselor:** Ms. Debbie Phillis, HPB 215, Phone (407) 823-0010

The College of Health and Public Affairs Advisement Office assists students in understanding matters relating to college and university requirements and procedures. Orientation and registration is coordinated through the advisement office. Questions concerning university and college academic policies should be directed through this office.

**Pre-Professional Health Coordinator:** Dr. Julius F. Charba, BL 331, Phone (407) 823-5932

The College of Health and Public Affairs offers preprofessional programs in the health disciplines leading to further study in schools of chiropractic, dentistry, medicine, osteopathic medicine, optometry, pharmacy, podiatry, and veterinary medicine.

See also: Pre-Health Professions Advising.

## Program Planning

Students should plan their programs of study in consultation with a faculty advisor appointed by the chair of the major department.

## General Requirements for the Bachelors Degree

Some 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: Departments of Nursing, Physical Therapy, Social Work, and the Programs in Medical Laboratory Sciences, Medical Record Administration, and Radiologic Sciences. Application must be made to the appropriate chair or director. Additional information regarding prerequisites and grade point averages may be obtained from the desired Program or Department.

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 Programs in Cardiopulmonary Sciences and Health Service Administration.

## DEPARTMENT OF COMMUNICATIVE DISORDERS

**Interim Chair:** *TBA*, HP 113, Phone (407) 823-2121

**Faculty:** *Hedrick, Ingram, Mullin, Parker, Ratusnik, Utt*

The primary goal of the Department of Communicative Disorders is the preparation of clinical specialists in Speech/Language Pathology and Audiology. Undergraduate offerings are consistent with philosophies of the American Speech-Language-Hearing Association in that most coursework is designed to provide the student theoretical foundations on which to build competent clinical skills. An on-campus clinic as well as external affiliations including area public schools, community speech and hearing centers, hospital clinics, physicians' offices and industrial settings are available for the development of various clinical competencies. Faculty are engaged in generation and transmission of knowledge concerning speech-language-hearing processes and impairments via ongoing research projects. The professional phase of the program in speech/language pathology and audiology is accredited by the Educational Standards Board of the American Speech-Language Hearing Association.



In addition to coursework for majors, the Department offers a 4-course sequence in Sign Language: SPA 3333, SPA 4380, SPA 4381, SPA 4382.

## Bachelor of Arts or Bachelor of Science: Communicative Disorders

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses
 

LIN 4710	Foundations of Language	3 hours
LIN 4710L	Foundations of Language Lab	1 hour
SPA 3002	Introduction to Communicative Disorders	3 hours
SPA 3050	Clinical Observation & Practice (Taken Fall & Spring of Senior year)	3 hours
SPA 3101	Physiological Bases of Speech and Hearing	3 hours
SPA 3112	Basic Phonetics	3 hours
SPA 3112L	Basic Phonetics Lab	1 hour
SPA 3550	Clinical Methods	3 hours
SPA 3550L	Clinical Methods Lab	1 hour
SPA 4011	Speech and Hearing Science	3 hours
SPA 4032	Audiology I	3 hours
SPA 4130	Augmentative Communication Systems	3 hours
SPA 4201	Communicative Disorders-Articulation	3 hours
SPA 4201L	Communicative Disorders-Articulation Lab	1 hour
SPA 4251	Organic Speech Disorders	3 hours
SPA 4251L	Organic Speech Disorders Lab	1 hour
SPA 4310	Audiology II	3 hours
SPA 4321	Aural Habilitation-Rehabilitation	4 hours
SPA 4402	Communicative Disorders-Language	3 hours
SPA 4402L	Communicative Disorders-Language Lab	3 hours
4. Statistics Requirement
 

STA 3023	Statistical Methods I	3 hours
STA 4163	Statistical Methods II	3 hours
5. Restricted Elective
 

A course at the 3000 or 4000 level related to the Major (e.g., education, psychology, sociology, computer, etc.) selected in consultation with the academic advisor.

3 hours
6. Other Electives
 

Students who wish to obtain a Teacher's Certificate for the State of Florida must include the necessary course work as electives. See your academic advisor.
7. **B.A./B.S. Option.** Students pursuing the B.A. degree must demonstrate proficiency in a foreign language equivalent to one year while students pursuing the B.S. degree must complete six credit hours of science courses approved by the Department.
8. Students must achieve a grade of C in required courses in the Department.

## DEPARTMENT OF CRIMINAL JUSTICE AND LEGAL STUDIES

**Chair:** N.G. Holten, PH 116, Phone (407) 823-2603

**Faculty:** Becker, Brennan, Cook, Duffey, Gonzalez, Holten, Korstad, Mahan, B.J. McCarthy, B.R. McCarthy, Mozee, Pyle, Slaughtor

The Department of Criminal Justice and Legal Studies includes two undergraduate degree programs: Legal Studies and Criminal Justice.

### 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. Two emphases are provided: legal-applied and legal-general. The applied emphasis prepares students for professional positions in law offices, public agencies, and business organizations. The general law

emphasis program is designed to provide a general background in American society and government as well as American law. This emphasis, in addition to preparing students for law-related careers, provides a foundation for further professional or graduate education. Satisfactory completion of program requirements in either emphasis leads to the degree of Bachelor of Arts with a major in Legal Studies.

### Legal Studies Minor

The Legal Studies Minor consists of 18 or more semester hours. Required courses: PLA 3013 plus a minimum of 12 semester hours of legal studies courses and 3 semester hours of law-related courses selected with the aid of an advisor.

## Bachelor of Arts: Legal Studies

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (15 hours)
 

PLA 3013	Law and the Legal System	3 hours
PLA 3105	Legal Research	3 hours
PLA 3155	Legal Writing	3 hours
PLA 3203	Civil Practice and Procedure	3 hours
PLA 3504	Property and Real Estate Law	3 hours
4. Restricted Electives
  - a. 18 additional hours of Legal Studies coursework. (see applied and general emphases below)
  - b. 12 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.
5. Electives

Total Semester Hours Required 120

### Applied Emphasis

Students are strongly urged to take the following courses as restricted electives:

PLA 3273	The Law of Torts
PLA 4408	The Law of Contracts
PLA 4433	Florida Partnerships and Corporations
PLA 4603	Estates and Trusts
PLA 4941	Internship

### General Emphasis

Students are strongly urged to select their restricted electives from the following list:

PLA 3273	The Law of Torts
PLA 3308	Criminal Procedure
PLA 4020	Law and Society
PLA 4408	The Law of Contracts
PLA 4483	Administrative Law
PLA 4700	Professional Ethics and Liability
PLA 5937	Seminar in Contemporary Legal Problems

Supporting courses in the general emphasis are to be selected in consultation with the student's advisor but may include course selected from the following areas: Political Science, Criminal Justice, Sociology, Psychology, History, Public Administration, and Philosophy.

## Bachelor of Arts: Criminal Justice

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (18 semester hours)
 

CCJ 3020	Criminal Justice System	3 hours
CCJ 3010	Crime in America	3 hours
CCJ 3290	Prosecution and Adjudication	3 hours



	CCJ 3300	Corrections and Penology	3 hours
	CCJ 4481	Police and Society	3 hours
	CCJ 4701	Research Methods in Criminal Justice	3 hours
4.	Restricted Electives		
	a. 21 additional semester hours of upper division CCJ coursework. Seniors can satisfy up to 9 hours of this requirement with internship and up to 6 hours with directed independent study; however, the combination of these non-class options shall not exceed 12 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.	Students must take a minimum of 30 hours from the department to obtain the UCF degree in Criminal Justice.		
6.	Electives		
	Total Semester Hours Required		120

## DEPARTMENT OF HEALTH SCIENCES

**Chair:** TBA, HPB 220 (407) 823-2972

**Faculty:** *Acierno, Barr, Bergner, Crittenden, Douglass, Drumheller, M.J. Edwards, T. Edwards, Hitchcock, Lytle, Mendenhall, Thornton, Welker, Worrell, Youmans*

The Department of Health Sciences offers a diversity of baccalaureate programs which prepare students for professions in the fields of Cardiopulmonary Sciences, Health Services Administration, Medical Laboratory Sciences, Medical Record Administration, and Radiologic Sciences. In addition, the Department offers a graduate program in Health Sciences.

The mission of the Department is to provide quality undergraduate and graduate academic 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 which fulfill 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 Department of Health Sciences requires a minimum overall GPA of 2.5 for admission to and graduation from its Limited Access programs. In addition, a minimum grade of "C" is required for prerequisite courses and required courses within the major.

**Departmental core requirements:** HSC 3640 Health Law; HSC 4550 Pathophysiologic Mechanisms HSA 4193 Health Data Processing; HSA 4243 Analysis of Instruction in the Health Professions.

### MINOR

The Department of Health Sciences offers a minor consisting of a minimum of 18 semester hours. In order to be awarded a minor in Health Sciences, a student must complete the required course work and maintain at least a 2.5 GPA and a minimum of "C" on all Health Sciences course work.

Required Courses: HSA 4121, HUN 3011, HSC 3110 and a minimum of 9 hours of upper-division courses in the Health Science Department. Majors may not count courses presently required in a department program.

### Gerontology Certification Program

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. The

program is completed along with the undergraduate major of the student and is administered by the College of Health and Public Affairs. While the program may be of particular interest to students who are majoring in health sciences, psychology, social work, or sociology, it is compatible with many disciplines--for example, music, music education, physical education, or art education.

To be certified in gerontology, each student must successfully complete the following courses:

DEP 3464	Psychology of Aging	3 hours
HSC 4564	Health Care Needs of the Elderly	3 hours
SYP 4730	Sociology of Aging	3 hours
SOW 4644	Social Services for the Elderly	3 hours

In addition, an approved clinical experience/practicum in gerontology or geriatrics must be completed for a minimum of three semester hours credit. Thus, the certification program requires fifteen semester hours of course work in addition to the major.

Students who are interested in certification should consult Dr. John F. Bergner, Jr., HP 124, Phone (407) 823-2176/2972 to enroll in the program and see one of the following faculty members for advisement:

Health Sciences - John F. Bergner, Ph.D., Professor of Health Sciences, HP 124.

Psychology - Richard D. Tucker, Ph.D., Professor of Psychology, PH 317.

Social Work - Eileen M. Abel, M.S.W., Assistant Professor, Sociology, FA 414.

Sociology - Charles M. Unkovic, Ph.D., Professor of Sociology, FA 408.

Students whose major does not fall within one of these departments should report to the College of Health and Public Affairs for advisement.

## Program in Health Sciences

**Director:** T. Mendenhall, HP-209, (407) 823-2972

The Program offers a baccalaureate degree in Health Services Administration and a graduate degree (M.S.H.S.) in Health Sciences. The Bachelor of Science in Health Services Administration has two options. One option is Health Care Management. Another option is Long Term Care Administration. The Health Care Management option is designed for graduates of certificate and/or terminal degree, allied health programs who desire upward mobility or articulation into specialized health care fields. These may include, but not limited to: Administration and Supervision, Education, Gerontology, and Clinical Laboratory Sciences. The Long Term Care Administration option is designed to prepare Nursing Home Administrators, who will practice in the state of Florida. The program is designed to meet State requirements for safe practice and adheres to guidelines published for certification for licensing, which will take affect in Florida in 1992.

## Bachelor of Science: Health Services Administration Health Care Management Option

### Degree Requirements

1. See Undergraduate Degree Requirements.

2. Prerequisites:

STA 2014	Principles of Statistics	3 hours
ECO 2013	Principles of Economics	3 hours

3. Required Courses:

HSC 3122	U.S. Health Care System	3 hours
HSC 3640	Health Law	3 hours
HSC 4550	Pathophysiologic Mechanisms	3 hours
HSC 4193	Health Data Processing	3 hours
HSA 4700	Health Sciences Research Methods	3 hours
HSA 4180	Organization & Management for Health Agencies	3 hours
HSA 4243	Analysis of Instruction in the Health Professions	3 hours
HSA 3170	Health Care Finances	3 hours
HSA 4651	Health Care Ethics	3 hours



COM 3110	Business and Professional Communication	3 hours
Directed Field Experience		Up to 30 hours
Cognate or Electives		16 hours
	Total Semester Hours Required	122 hours

### Directed Field Experience

All students must complete an area of health specialization through: Up to 30 hours

1. Allied Health occupationally specific coursework, and/or
2. Credit by examination.

Occupationally specific coursework may be lower or upper division and may be transferred from another accredited educational institution offering college credit. Credit by examination may be completed through Allied Health specific examination, such as state or national registration/licensure, or occupationally specific professional associations. All students must provide written documentation of health related work experience. This is a requirement of admission to the degree program. Admission to the degree program occurs upon acceptance into the Directed Field Experience.

#### Cognate: Certificate in Gerontology

DEP 3464	Psychology of Aging	3 hours
HSC 4564	Health Care Needs of the Elderly	3 hours
SYP 4730	Sociology of Aging	3 hours
SOW 4644	Social Services for the Elderly	3 hours

#### Cognate: Health Services Administration

MAR 3023	Marketing	3 hours
HSA 4941	Health Care Management Internship	6 hours

#### Cognate: Health Sciences Education

EVT 3371	Essential Teaching Skills in Vocational Education	3 hours
EVT 3365	Methods of Training in Vocational Subjects	4 hours
HSC 4244	Curriculum Planning in the Health Professions	2 hours
HSC 4941	Health Sciences Instruction Internship	3 hours

### Long Term Care Administration Option

Implementation of this option is on temporary hold.

#### Degree Requirements

1. See Undergraduate Degree Requirements.

2. Prerequisites:

STA 2014	Statistics	3 hours
CGS 1060	Introduction to Computer Science	3 hours

3. Requirements:

ACG 3301	Management Accounting	3 hours
APB 3600	Introduction to Pharmacology	3 hours
DEP 3464	Psychology of Aging	3 hours
HSC 4700	Health Sciences Research Methods	3 hours
HSA 4180	Organization and Management for Health Agencies	3 hours
HSA 3170	Health Care Finance	3 hours
HSA 4651	Health Care Ethics	3 hours
HSA 3122	U.S. Health Care Systems	3 hours
HSA 3210	Long Term Care Administration	3 hours
HSA 4120	Community and Public Health Services	3 hours
HSA 4243	Analysis of Instruction in the Health Sciences	3 hours
HSA 4220	Long Term Care Patient Management	3 hours
HSC 3640	Health Law	3 hours
HSC 4500	Pathophysiologic Mechanisms	3 hours
HSC 4500	Epidemiology	3 hours
HSC 4564	Health Care Needs of the Elderly	3 hours

HSC 3531	Medical Terminology	3 hours
HUN 3011	Human Nutrition	3 hours
MAN 3301	Personnel Management	3 hours
MAR 3023	Marketing	3 hours
MRE 4420	Health Legislation	3 hours
PCB 3703C	Human Physiology	4 hours
SOW 4644	Social Services for the Elderly	3 hours
SYP 4730	Sociology of Aging	3 hours
ZOO 3733C	Human Anatomy	3 hours
HSA 4941	Internship - Nursing Home Administration	6 hours
	Total Semester Hours	132

## Program in Medical Record Administration

**Director:** C. Barr, HP 125, Phone (407) 823-2359

Medical Record Administrators 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 Medical Record Administration program is approved by the Committee on Allied Health Education and Accreditation of the American Medical Association in collaboration with the Council on Education of the American Health Information Management Association.

Before acceptance to the professional phase of the program, students are required to complete the following prerequisite courses: biology with lab, anatomy with lab, physiology with lab, statistics, an introduction to data processing or computer science, and an introductory course in finance or accounting.

Application and acceptance to the University does not constitute admission to the program. SEPARATE APPLICATION must be made directly to the upper-division, limited access MRA program prior to February 1st of the year in which prerequisites will have been met to be considered an applicant. A personal interview is also required.

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 Record Administrator.

## Bachelor of Science: Medical Record Administration

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses

APB 3600	Introduction to Pharmacology	3 hours
COM 3110	Business and Professional Communication	3 hours
ENC 3210	Business Report Writing	3 hours
HSA 3170	Health Care Finance	3 hours
HSA 4193	Health Data Processing	3 hours
HSC 3640	Health Law	3 hours
HSC 3531	Medical Terminology	3 hours
HSC 4243	Analysis of Instruction	3 hours
HSC 4550	Pathophysiologic Mechanisms	3 hours
HSC 4700	Health Sciences Research Methods	3 hours
MAN 3025	Management of Organizations	3 hours
MAN 3301	Personnel Management	3 hours
MRE 3000	Introduction to Medical Records	4 hours
MRE 3110	Medical Record Organization & Management	5 hours
MRE 3800	Directed Practice I	2 hours



MRE 3810	Directed Practice II	2 hours
MRE 4202	Coding Procedures	5 hours
MRE 4203	Coding Procedures II	3 hours
MRE 4304	Medical Record Department Management	3 hours
MRE 4312	Analysis of Medical Record Department Operations	4 hours
MRE 4400	Health Records and Standards	4 hours
MRE 4420	Health Legislation	2 hours
MRE 4500	Quality Assessment	4 hours
MRE 4830	Directed Practice III	2 hours
MRE 4832	Directed Practice IV	2 hours
MRE 4835	Management Affiliation	5 hours
	Total Semester Hours Required	141

## Program in Medical Laboratory Sciences

**Director:** D. Hitchcock, HP 105, Phone (407) 823-2359

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 abilities 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.

Admission to the University does not constitute admission to the upper-division, limited access Medical Laboratory Sciences Program. SEPARATE APPLICATION must be made through the Medical Laboratory Sciences Office prior to February 1st of the year for which admission is sought. For the last seven months of the program the students will be assigned to a hospital laboratory for clinical experience. The affiliated hospitals are located in Lakeland, Orlando, Winter Haven and Rockledge. It may be necessary for the student to relocate to any of these areas for this period. A minimum 2.5 overall GPA is required for clinical assignment.

The degree in Medical Laboratory Sciences will be awarded upon completion of the University's didactic program and the clinical program in an affiliated hospital.

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.

## Bachelor of Science: Medical Laboratory Sciences

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses

#### Prerequisites for professional phase admission

BSC 2010C	General Biology	4 hours
MCB 3013C	General Microbiology	5 hours
MCB 3203	Pathogenic Microbiology	3 hours
MCB 3203L	Pathogenic Micro Lab	1 hour
CHM 2045, 2046	Chemistry Fundamentals I & II	7 hours
CHM 2046L	Chemistry Fundamentals Laboratory	1 hour
CHM 2205	Introduction to Organic & Biochemistry	5 hours
MAC 1104	College Algebra	3 hours
STA 3023	Statistical Methods I	3 hours

#### Upper Division Professional Phase

PCB 3233	Immunology	3 hours
PCB 3233L	Immunology Lab	1 hour
PCB 3703C	Human Physiology	4 hours
MLS 3220	Clinical Microscopy with Lab	3 hours
MLS 3305C	Hematology	4 hours



MLS 4830C, 4831C, 4832C, 4833C, 4834C	Clinical Practice I, II, III, IV, & V	20 hours
MLS 4460	Clinical Pathogenic Microbiology	4 hours
MLS 4625C, 4630C	Advanced Clinical Chemistry I & II	10 hours
MLS 4334C	Hemostasis	2 hours
MLS 4550C	Clinical Immunohematology	4 hours
MLS 4420C	Clinical Mycology	1 hour
MLS 4430C	Clinical Parasitology	2 hours
MLS 4511C	Immunodiagnostics	2 hours
HSC 4700	Health Sciences Research Methods	3 hours
MLS 4932	Medical Technology Seminars	1 hour
HSC 4243	Analysis of Instruction in Health Professions	3 hours
HSC 3640	Health Law	3 hours
HSC 4550	Pathophysiological Mechanisms	3 hours
HSA 4180	Organization and Management for Health Agencies	3 hours
HSA 4193	Health Data Processing	3 hours

4. Restricted Electives:

5. Electives: None

Total Semester Hours Required

140

## Program in Radiologic Sciences

Director: T. J. Edwards III, Phone (407) 823-2747

The University of Central Florida offers the only accredited Bachelor of Science in Radiologic Sciences degree program in Florida. The Radiologic Sciences Program offers students the opportunity to specialize in either Radiography or Radiation Therapy. Radiographers and Radiation Therapists are integral members of the health care team dedicated to providing high quality patient care. Graduates are prepared to function as clinically competent Radiographers or Radiation Therapists and, with experience, advance to leadership positions in their profession. Employment opportunities in both fields are excellent.

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, 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 administration, education, quality assurance, and public health physics.

Radiation Therapists work closely with physicians to deliver high energy radiation for the treatment of cancer. The Radiation Therapist delivers the prescribed amount of radiation to the precise tumor site while assessing and reporting patient progress throughout the course of treatment. Employment opportunities are available in hospitals and treatment centers. Career advancement opportunities include positions in radiology administration, education, quality assurance, and dosimetry.

The program works in conjunction with Central Florida Regional Hospital, Sanford; Jewett Orthopaedic Clinic, Winter Park; Halifax Medical Center, Daytona Beach; South Seminole Community Hospital, Longwood; and Winter Park Memorial Hospital, Winter Park.

The programs in Radiography and Radiation Therapy Technology are accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the Joint Review Committee on Education in Radiologic Technology (JRCERT). Graduates are eligible to apply for admission to the certification exam administered by the American Registry of Radiologic Technologists (ARRT). The University of Central Florida is the sponsoring institution for the Radiography program. Halifax Hospital Medical Center is the sponsoring institution of the Radiation Therapy program.

The application deadline for admission to the upper-division, limited access phase of the program is February 1 of the year in which admission is sought.

Students considering a career in radiologic technology are encouraged to enroll in the Introduction to Radiologic Sciences course (RTE 1002). This course may be completed prior to admission to the limited access phase of the program.



## Registered Technologists

Up to 45 semester hours of credit may be awarded to Registered Technologists (ARRT). Registered technologists with an A.S. degree in Radiologic Technology from a Florida public community college have the same choice of catalog options as students with an A.A. degree. Registered technologists may complete the general education and prerequisite courses concurrently with the professional courses.

## Bachelor of Science: Radiologic Sciences

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required courses

#### Prerequisites

CGS 1060	Introduction to Computer Science	3 hours
MAC 1104	College Algebra	3 hours
PCB 3703C	Human Physiology	4 hours
PHY 3053C	College Physics I	4 hours
PHY 3054C	College Physics II	4 hours
ZOO 3733C	Human Anatomy	4 hours

#### Professional Phase

#### Radiography Program of Study

#### JUNIOR LEVEL

RTE 1002	Introduction to Radiologic Sciences	3 hours
RTE 3123	Introduction to Patient Care	2 hours
RTE 3528C	Radiographic Procedures I	3 hours
RTE 3412C	Principles of Radiographic Exposure I	3 hours
RTE 3806	Clinical Education I	4 hours
RTE 3549C	Radiographic Procedures II	3 hours
RTE 3457C	Principles of Radiographic Exposure II	3 hours
RTE 3684	Physics of Image Production	2 hours
HSC 3640	Health Law	3 hours
RTE 3387	Medical Physics	3 hours
RTE 3564	Special Radiographic Procedures	2 hours
RTE 3816	Clinical Education II	4 hours
STA 3023	Statistical Methods I	3 hours
HSC 4550	Pathophysiologic Mechanisms	3 hours

#### SENIOR LEVEL

RTE 4826	Clinical Education III	5 hours
RTE 4566	Advanced Imaging Modalities	3 hours
RTE 4876	Clinical Education IV	6 hours
RTE 4362	Radiobiology	1 hour
RTE 4207	Methods of Radiology Management	3 hours
RTE 4843	Clinical Education V	6 hours
RTE 4156	Radiographic Pathology	2 hours
RTE 4569	Quality Assurance	3 hours
RTE 4720	Anatomy for the Medical Imager	3 hours
HSC 4243	Analysis of Instruction in the Health Professions	3 hours
HSC 4193	Health Data Processing	3 hours

#### Electives:

RTE 4209	Radiological Administrative Practice	2 hours
RTE 4256	Directed Study in Clinical Education	2 hours
	Total Semester Hours required	132 hours

## Radiation Therapy Program of Study

### JUNIOR LEVEL

RTE 1002	Introduction to Radiologic Sciences	3 hours
RTE 3123C	Introduction to Patient Care	2 hours
RTE 3528C	Radiographic Procedures I	3 hours
RTE 3412C	Principles of Radiographic Exposure I	3 hours
RTE 3806	Clinical Education I	4 hours
RTE 3549C	Radiographic Procedures II	3 hours
RTE 3457C	Principles of Radiographic Exposure II	3 hours
RTE 3684	Physics of Image Production	2 hours
RAT 3001	Introduction to Radiation Oncology	3 hours
RAT 3242	Oncologic Pathology	2 hours
RAT 3241	Clinical Radiobiology	3 hours
RAT 3614	Radiation Therapy Physics I	2 hours
RTE 3816	Clinical Education II	4 hours
HSC 4550	Pathophysiologic Mechanisms	3 hours
RTE 3387	Medical Physics	3 hours
RTE 3564	Special Radiographic Procedures	2 hours
HSC 4243	Analysis of Instruction in the Health Professions	3 hours
HSC 3640	Health Law	3 hours

### SENIOR LEVEL

RAT 4027	Radiation Oncology I	3 hours
RAT 4618C	Radiation Therapy Physics II	4 hours
RTE 4826	Clinical Education III	5 hours
RAT 4028	Radiation Oncology II	3 hours
RAT 4619C	Radiation Therapy Physics III	4 hours
RTE 4876	Clinical Education IV	6 hours
STA 3023	Statistical Methods I	3 hours
RTE 4720	Anatomy for the Medical Imager	3 hours
HSA 4193	Health Data Processing	3 hours
Electives:		
RTE 4843	Clinical Education V	6 hours
RTE 4256L	Directed Study in Clinical Education	2 hours
Total Semester Hours Required		138

## Program In Cardiopulmonary Sciences

**Director:** O.J. Drumheller, HP 350, Phone (407) 823-2214

Cardiopulmonary Sciences currently encompasses two academic areas: the undergraduate curriculum leading to the Bachelor of Science Degree in Cardiopulmonary Sciences and a cardiopulmonary science emphasis in one option in the Master of Science Degree in Health Sciences (see graduate catalog for further information).

*At the time of publication of this catalog the program in cardiopulmonary sciences was undergoing major curriculum revisions. Students should seek advisement from the program director for up-to-date information on this program.*

Students must be accepted by the university and meet all requirements for admission to the upper division. No separate application is necessary. A 2.5 overall GPA is required for admission to and graduation from the program. Students must meet all university undergraduate degree, special college and/or departmental requirements, and program requirements in order to graduate.

## Bachelor of Science: Cardiopulmonary Sciences

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

### 3. Prerequisites

STA 3023	Statistics	3 hours
----------	------------	---------



MAC 1104	College Algebra	3 hours
BSC 2010C	General Biology	4 hours
MCB 3013C	General Microbiology	5 hours
ZOO 3733	Human Anatomy	4 hours
PCB 3703C	Human Physiology	4 hours
CHM 1032	General Chemistry	3 hours
CHM 2045L	Chemistry Fund Lab	1 hours
PHY 3053C	College Physics I	4 hours

#### 4. Professional curriculum

Contact program director for up-to-date information on professional curriculum.

Total Semester Hours Required 144 hours

## DEPARTMENT OF MOLECULAR BIOLOGY AND MICROBIOLOGY

**Chair:** R. N. Gennaro, BL 330, Phone (407) 823-5932

**Faculty:** Berringer, Charba, Gennaro, Laird, Sweeney, Washington, White, Wodzinski

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 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 medical/dental/veterinary and so forth professional education.

### MINOR IN MOLECULAR BIOLOGY AND MICROBIOLOGY

The Department of Molecular Biology and Microbiology offers a minor consisting of a minimum of 30 semester hours.

Required courses (22 hours) include: BSC 2010C, MCB 3013C, PCB 3233, PCB 3233L, PCB 3523, PCB 4524, and APB 3342.

Restricted Electives (8 hours minimum): at least two courses from the Restricted Elective category of the baccalaureate curriculum.

To be eligible for a minor in Molecular Biology and Microbiology, a student must have a GPA of at least 2.0 in all courses taken for the minor, subject to the following constraints:

- At least 15 of the required 30 hours must be taken in the Department of Molecular Biology and Microbiology at UCF;
- No "D" grades from other institutions will be accepted;
- No CLEP, TSD or AP credit will be accepted.

## Bachelor of Science: Molecular Biology and Microbiology

### Degree Requirements:

- See Undergraduate Degree requirements.
- To be eligible for a major in Molecular Biology and Microbiology, a student must complete all coursework in the baccalaureate curriculum as shown, and, with respect to the Life Sciences portion of the Core Curriculum and the Restricted Electives, earn a GPA of at least 2.0 for all coursework in each of those categories subject to the following constraints:
  - No CLEP, TSD, or AP credit may be used;
  - No "D" grades from other institutions will be accepted;
  - A maximum of 3 hours of independent study, directed research, or similar credit may be used as a Restricted Elective or as a substitute for any stated Core Curriculum requirement unless prior Departmental approval is obtained;
  - A minimum of 20 hours must be taken at UCF in the department of the major.

## Molecular Biology and Microbiology Undergraduate Curriculum

I. University Requirements		27
General Education Program (Communication, C&H, and Soc. Sci.)		[27]
II. Departmental Requirements		82-92
A. Core Curriculum		[65-66]
<i>Life Sciences</i>	(29-30)	
BSC 2010C	General Biology	(4)
BOT or ZOO 2010C	General Botany or General Zoology	(3 or 4)
MCB 3013C	General Microbiology	(5)
PCB 3063, 3063L	Genetics + Genetics Lab	(4)
PCB 3233, 3233L	Immunology + Immunology Lab	(4)
PCB 3523, 4524	Molecular Biology I, II	(6)
APB 3342C	Quantitative Biological Methods	(3)
<i>Chemistry</i>	(19)	
CHM 2045, 2046, 2046L	General Chemistry I, II, + Lab	(8)
CHM 3210, 3211, 3211L	Organic Chemistry I, II, + Lab	(8)
BCH 4053	Biochemistry I	(3)
<i>Math and Stat</i> <sup>(1)</sup>	(9)	
MAC 1104, 1114	College Algebra, College Trigonometry	(6)
STA 3023	Statistical Methods I	(3)
<i>Physics</i> <sup>(1)</sup>	(8)	
PHY 3053C, 3054C	College Physics I, II	(8)
B. Restricted Electives (Select 6 courses in consultation with advisor)		[17-26]
APB 5236	Applied Microbiology	(3)
BCH 4054	Biochemistry II	(3)
BCH 4103L	Biochemical Methods	(2)
MCB 3203, 3203L	Pathogenic Microbiology + Lab	(4)
MCB 4114C	Microbial Systematics and Diagnostics	(4)
MCB 4404	Microbial Metabolism	(3)
MCB 4603	Environmental Microbiology	(3)
MCB 5205	Infectious Process	(3)
MCB 5505C	Virology	(3)
PCB 3703C	Human Physiology	(4)
PCB 5235C	Immunopathology	(4)
PCB 5806C	Endocrinology	(3)
ZOO 3733C	Human Anatomy	(4)
ZOO 4603C	Vertebrate Embryology	(5)
ZOO 4753C	Vertebrate Histology	(5)
ZOO 5745C	Essentials of Neuroanatomy	(4)
III. Unrestricted Electives		9-19
	Total Credits Required for Degree	128

Note (1): 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 3048, 3049, 3048L, 3049L); Applied Calculus I & II (MAC 3253, 3254) or Calculus with Analytic Geometry I & II (MAC 3311, 3312).

## DEPARTMENT OF NURSING

**Chair:** J.C. Kijek, HP 410, Phone (407) 823-2744

**Faculty:** Browne-Krimsley, Brunell, Covelli, Dorer, Giovinco, Hennig, Judkins, Koch, Noll, Peragallo, Peterson, Primus, Ramey, Smith, 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.



Acceptance to the University does not constitute admission to the upper-division, limited access nursing major. SEPARATE APPLICATION must be made directly to the Admissions Office prior to February 1st of the year in which Fall admission is sought. R.N.s and minority applicants receive special consideration. Completion of the A.A. degree or General Education Program is required along with prerequisite courses with a grade of "C" or better. Graduates are eligible to take the licensing examination for registered nurses.

## Bachelor of Science: Nursing

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and or department requirements
3. Required Courses

Prerequisites to Nursing Major to be satisfactorily completed **prior** to admission to the major

MCB 3013C	General Microbiology	5 hours
ZOO 3733C	Human Anatomy	4 hours
PCB 3703C	Human Physiology	4 hours
CHM 2205	Introduction to Organic/Biochemistry	5 hours
STA 2014		
or 3023	Principles of Statistics	3 hours
SOW 3104	Human Growth and Development	
or		
DEP 3004	Developmental Psychology	3 hours
HUN 3011	Human Nutrition	3 hours
Upper-Division Professional Phase		
HSC 4550	Pathophysiologic Mechanisms	3 hours
NUR 3119	Introduction to Baccalaureate Nursing	3 hours
NUR 3748C	Concepts Basic to Nursing Practice (Generic Students)	6 hours
NUR 3066	Health Assessment	3 hours
NUR 3166	Critical Inquiry	3 hours
NUR 3809	Transitional Concepts in Nursing (RN Students)	6 hours
*NUR 3749C	Scientific Theories of Nursing I	6 hours
*NUR 3795C	Scientific Theories of Nursing II	6 hours
*NUR 3755C	Scientific Theories of Nursing III	5 hours
*NUR 3796C	Scientific Theories of Nursing IV	5 hours
*NUR 4756C	Scientific Theories of Nursing V	6 hours
NUR 4758C	Scientific Theories of Nursing VI	6 hours
NUR 4757C	Scientific Theories of Nursing VII	6 hours
NUR 4797	Professional Development and Issues	3 hours
NUR 4941	Selected Nursing Practicum	3 hours
4. Restricted Electives: One course in nursing		3 hours
5. Electives: None		

Total Semester Hours Required

131

\*Students who are Registered Nurses in Florida must pass examinations for credit for these courses **prior** to enrollment in NUR 3809.

\*NUR 3809 Transitional Concepts in Nursing (RN Students)

## DEPARTMENT OF PHYSICAL THERAPY

**Chair:** P. Yarbrough, HP 220, Phone (407) 823-5040

**Faculty:** R. J. Laird

The physical therapy program at the University of Central Florida is an entry-level curriculum leading to a Bachelor of Science in Physical Therapy degree. Graduates will be eligible to take the state licensure examination in any state in the United States, or comparable examination in foreign countries with practice acts regulating the practice of health professionals. Graduates of entry-level programs are prepared to practice in an ethical, legal, safe, caring and effective manner in a variety of acute, community, rehabilitative,



or private health care settings, providing both physical and psychosocial intervention. Graduates are able to screen individuals to determine the need for physical therapy examination or for referral to other health professionals. They can determine in any patient with physical dysfunction a diagnosis that is within the scope of physical therapy. They can design and manage a comprehensive physical therapy plan of care that includes a comprehensive treatment plan, appropriate delegation to and supervision of other support personnel, accurate and thorough documentation of the delivery, and quantified results of, the plan of care, and participation in discharge planning and follow-up care. Graduates are also prepared to pursue graduate studies in and out of physical therapy, and/or specialty training and certification in all recognized physical therapy specialties.

The entry-level professional curriculum is a full-time program. It is seven consecutive semesters in length, including clinical practicums and internships ranging from one week to six months long. A new entering class begins the program in May of each year. Acceptance to the University, however, does not constitute admission to this upper-division, limited access program. **Separate application** must be made directly to the Department of Physical Therapy at UCF by January 1st of the year in which admission is sought. Complete information regarding application procedures is also available from that office.

## Admission Requirements

### A. UCF Students:

1. Completion of all GEP requirements.
2. Satisfaction of CLAST requirement.
3. Completion of, with no grade lower than 'C', *all* courses used to satisfy **Prerequisite Requirement** (see Section D, below).

### B. Transfer Students:

1. A.A. degree from a state supported community college or State University System of Florida institution, *or* bachelor's degree from any accredited senior college in the United States or Canada.
2. Completion at an accredited institution in the United States or Canada, and with no grade lower than 'C', *all* courses used to satisfy **Prerequisite Requirement** (see Section D, below).

### C. All Students:

1. Courses strongly recommended but **not** required:  
PHI 1100                                  Critical Thinking                                  (3)  
All courses *not* selected in Section D.1.b. below                                  (3)
2. Overall GPA of at least 2.8, and a minimum GPA of 2.8 in *all* courses used to satisfy the **Prerequisite Requirement** (see Section D, below).
3. A minimum of 200 documented clock hours experience working, volunteering or shadowing in a physical therapy facility; or otherwise compelling evidence of significant interest and inquiry into the profession of physical therapy or experience in a health care setting.
4. Demonstrated interpersonal abilities and potential for leadership.
5. Competence in the use of a personal computer.
6. Receipt of a completed Physical Therapy Application for Admission by January 1, 1993.
7. Completion of no fewer than twenty four credits of the Prerequisite Requirement in the *Natural Sciences* by the end of the 1992 Fall semester (see Section D, below).

### D. Prerequisite Requirement:

1. Behavioral Sciences (a minimum of one *course* in each category):
  - a. General Psychology
  - b. Advanced Psychology, e.g., Developmental *or* Abnormal Psychology, *or* Personality Theory
2. Natural Sciences (a minimum of one *year* of courses in each category)
  - a. Biology - General Biology, Microbiology or Zoology courses, with labs, acceptable toward a major in a biological science.
  - b. Chemistry - General Chemistry, with lab, for chemistry majors, *or* a one-year survey sequence of General Chemistry and Organic/Biochemistry.
  - c. Math - a course in College Algebra; and the first course in Statistics for science majors.
  - d. Physics - College Physics (algebra based), or University Physics (calculus based), with labs.



## Bachelor of Science: Physical Therapy

### Degree Requirements

1. See Undergraduate Degree Requirements.
2. Departmental Requirements: to be eligible for a baccalaureate degree in physical therapy, a student must complete all academic and clinical education courses prescribed in the professional curriculum, as shown in Section 4 below, with no grade less than 'C', and be recommended for the degree by the academic and clinical faculty.
3. Preprofessional Curriculum: 60
  - A. Prerequisite Requirements (The following is an example of a selection of courses that may be used to satisfy the Prerequisite Requirement) (36)

BSC 2010C	General Biology	4 hours
CHM 1032	General Chemistry	3 hours
CHM 2205	Organic/Biochemistry	5 hours
MAC 1104	College Algebra	3 hours
PSY 2013	General Psychology	3 hours
CLP 3143	Abnormal Psychology	3 hours
PCB 3703C	Human Physiology	4 hours
PHY 3053C	College Physics I	4 hours
PHY 3054C	College Physics II	4 hours
STA 2023	Statistical Methods I	3 hours
  - B. Remaining General Education Program (24)
4. Professional Curriculum: 79
  - A. First Professional Year (4)

PHT 3200C	Introduction to Caring for Patients	3 hours
PHT 3110C	Clinical Gross Anatomy	6 hours
PHT 3002C	Foundations of Physical Therapy I	2 hours
PHT 3003C	Foundations of Physical Therapy II	2 hours
PHT 3120C	Clinical Kinesiology	4 hours
PHT 3216C	Theory and Procedures of Physical Therapy I	3 hours
PHT 3222C	Therapeutic Exercise I	2 hours
PHT 3170	Functional Histology	2 hours
PHT 3821	Clinical Education I	1 hours
PHT 3142C	Clinical Neuroscience	4 hours
PHT 3223C	Therapeutic Exercise II	2 hours
PHT 3217C	Theory and Procedures of Physical Therapy II	2 hours
PHT 3350	Medical Science and Pharmacology I	2 hours
PHT 3600	Introduction to Clinical Research	2 hours
PHT 3155C	Physiology of Therapeutic Exercise	3 hours
  - B. Second Professional Year (39)

PHT 4822	Clinical Education II	2 hours
PHT 4232C	Therapeutic Exercise III	2 hours
PHT 4320C	Pedontogeny (Child Growth & Development)	3 hours
PHT 4300	Medical Science and Pharmacology II	2 hours
PHT 4XXX	Psychological Aspects of Disability	3 hours
PHT 4233C	Therapeutic Exercise IV	2 hours
PHT 4310C	Orthopedic Problems in Physical Therapy	2 hours
PHT 4311C	Neurological Problems in Physical Therapy	2 hours
PHT 4610	Clinical Research Problems I	1 hours
PHT 4822	Clinical Education III	1 hours
PHT 4004C	Foundations of Physical Therapy III	2 hours
PHT 4410C	Teaching and Learning in Physical Therapy	3 hours
PHT 4001	Professional Issues	1 hours
PHT 4370C	Cardiopulmonary Problems in Physical Therapy	2 hours
PHT 4372	Gerontology in Physical Therapy Practice	2 hours
PHT 4510	Management of Physical Therapy Services	3 hours
PHT 4620	Clinical Research Problems II	1 hours
PHT 4831	Clinical Internship I	2 hours
PHT 4832	Clinical Internship II	3 hours

Total Semester Hours Required for Degree

139

**PRE-HEALTH PROFESSIONS**—See Pre-Health Professions Advising.

**DEPARTMENT OF PUBLIC ADMINISTRATION**

**Interim Chair:** *R. Denhardt*, PH 102, Phone (407) 823-2604

**Faculty:** *Aristigueta, Colby, K. Denhardt, R. Denhardt, Jurie, Lawther, Rosell, Shapek*

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 with a major in Public Administration. The baccalaureate program in Public Administration is offered on the Orlando and Brevard campuses.

**Bachelor of Arts: Public Administration**

**Degree Requirements**

1. See Undergraduate Degree Requirements
  2. See special college and/or department requirements
  3. Required Courses (27 semester hours)

PAD 3003	Introduction to Public Administration	3 hours
PAD 4034	Administration of Public Policy	3 hours
PAD 4104	Administrative Theory	3 hours
PAD 4204	Fiscal Management	3 hours
PAD 4414	Public Personnel Administration	3 hours
POS 2041	American National Government	3 hours
ECO 2013	Principles of Economics I	3 hours
CGS 1060	Introduction to Computer Science or	
CGS 3000	Computer Fundamentals for	3 hours
	Business Application	
STA 2014	Principles of Statistics or	
STA 3023	Statistical Methods I or	
PAD 4270	Survey Research or	
	a course in social science research with an emphasis on	
	statistical methods	3 hours
  4. Restricted Electives  
30 additional semester hours taken from: (1) Public Administration electives including the internship; and (2) one or more allied public science fields. All courses are selected with and approved by the student's advisor. Among such supporting fields are accounting, legal studies, communications, computer sciences, criminal justice, economics, political science, social work, sociology, and statistics.
  5. Electives
- Total Semester Hours Required 120

**MINOR**

The public administration program offers a minor in public administration consisting of 21 hours:

1. All five of the required core courses for the PAD major will be required of the PAD minor. These are: PAD 3003, PAD 4414, PAD 4104, PAD 4204, and PAD 4034.
2. Two additional courses may be selected from among the list of PAD restricted electives or related courses in other fields. These courses will be chosen with the consent of the PAD undergraduate advisor.

**DEPARTMENT OF SOCIAL WORK**

**Chair:** *K.J. Kazmerski*, FA 215, Phone (407) 823-2114

**Faculty:** *Abel, Boyer, Green, Suh*

The Department of Social Work offers a professional degree program which 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.

Applications to the *limited access program* may be obtained at the Department of Social Work. For acceptance into the program students must have a 2.0 overall GPA. Personal qualifications include intelligence, initiative, social concern, appreciation for human diversity, dependability, humanitarian interests in helping people and in improving human services, and college-level reading and writing skills. Student qualifications are reviewed initially and on an ongoing basis.

To qualify for graduation and for entry into field education (SOW 4510), a student must have a 2.5 GPA in the major. Students also must complete 30 credit hours in social work at UCF to graduate from the program.

## Bachelor of Social Work

### Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses

UCF general education requirements, or AA degree from a Florida state community college

Pre-professional courses, to be completed **prior** to admission to the major:

Biology (BSC 1020C or 1030C)	3 hours
Computer Science (CGS 1060C)	3 hours
American Government (POS 2041)	3 hours
Psychology (PSY 2013)	3 hours
Sociology (SYG 2000)	3 hours

Professional foundation requirements (45 hours)

SOW 3104	Assessing Human Development	3 hours
SOW 3111	Assessing Human Systems	3 hours

SOW 3203	Social Welfare and Community Resources	3 hours
SOW 3232	Social Welfare Policies and Issues	3 hours
SOW 3401	Social Work Research	3 hours
SOW 4431	Evaluating Social Work Practice and Service Programs	3 hours
SOW 3300	Generalist Practice in Social Work	3 hours
SOW 3352	Interpersonal Skills in Social Work Practice	3 hours
SOW 4341	Micro-level Roles and Interventions in Social Work	3 hours
SOW 4343	Macro-level Roles and Interventions in Social Work	3 hours
SOW 4620	Social Work with Minorities	3 hours
SOW 4510	Field Education	9 hours
SOW 4522	Field Education Seminar	3 hours
4. Social Work Elective		3 hours
Total Semester Hours Required		120

#### **Social Welfare Enhancement Option**

See Gerontology Certificate Program

The Department will require that all social work majors either meet the requirements of the UCF foreign language policy for the BA degree or complete two courses in foreign culture or cultural diversity. Specific details are available from the department.



# CENTER FOR CONTINUING EDUCATION

**Director:** *Thomas A. Shostak*, Research Pavilion, Suite 220, Phone (407) 249-6100

**Assistant Director:** *Dale A. Badger*

The Center for Continuing Education develops, coordinates, and implements noncredit and sponsored credit institute programs of extension, outreach, and continuing education in cooperation with academic colleges and departments of the University. Learners wishing to continue their education are offered, as an alternative to regular credit courses, opportunities for academic credit, professional and personal growth, and enrichment at various locations. The primary purpose is to provide lifelong learning opportunities by using university resources to benefit nontraditional and traditional learners.

A broad spectrum of programs, many designed specifically for individuals and groups, include short courses, in-service training, conferences, seminars, institutes, special training programs, study-travel programs, and workshops. Credit courses are conducted in cooperation with external sponsors for nontraditional students who wish to complete baccalaureate degree requirements, recertification requisites or professional licensure mandates. Professional level noncredit programs are offered to meet the educational needs of business, professional, government, service, and civic organizations. To substantiate the content of professional programs, as well as to offer credentials to verify the learner's participation, Continuing Education Units (CEU) are offered to qualified and eligible participants.

Additionally, training activities can be custom designed for specific professional groups or organizations desiring to complement their internal personnel training and development programs. Specialized certification courses, in response to legislative mandates (e.g. certified risk managers in certain health care facilities) are also offered. Registration in Center for Continuing Education courses does not require admission to the University, nor does it imply acceptance.

The Center for Continuing Education administers the Center for Multilingual Multicultural Studies which is located on the main campus.

## **Center for Multilingual Multicultural Studies**

**Director:** *Consuelo Stebbins*, PC 617, Phone (407) 823-5515

The Center provides English instruction for foreign students and area business persons. The intensive English program combines the latest in teaching methodology with computer-assisted instruction. Full-time students enrolled at the Advanced level may elect to take courses as nondegree-seeking students while enrolled in the English language program. Student (F-1) visas are extended to qualified applicants. Special attention is given to preparing students for academic coursework in their specialized fields of study. Four levels of instruction are offered which range from Beginning to Advanced. Students are required to take an entry placement test to determine their level of proficiency. The Center also offers English for special purposes for international business.

# INSTITUTES AND CENTERS FOR RESEARCH

## HIV-AIDS EDUCATION INFORMATION AND RESEARCH INSTITUTE

The HIV-AIDS Education Information and Research Institute is an interdisciplinary organization established in the College of Health and Public Affairs to facilitate the promotion of HIV-AIDS information and to serve as a principal coordinator in cooperation with local, regional, and state organizations, for HIV-AIDS education and other issues of particular interest to Central Florida.

Major goals of the Institute are to promote and provide educational research, and service programs for professionals, the general public, and private organizations; to serve as a regional information and educational center, to aid the educational community in promoting, securing, and maintaining up-to-date literature concerned with HIV-AIDS.

**Contact Person:** Sharon E. Douglass, Director, HPB 350, (407) 823-AIDS

## CENTER FOR RESEARCH IN ELECTRO-OPTICS AND LASERS (CREOL)

CREOL was established in 1986 for the purpose of bringing together diverse disciplines into a cohesive optics and laser research and education program.

Faculty members span the disciplines of electrical engineering, physics, computer engineering, mechanical engineering, mathematics, and related fields. CREOL: conducts research in such fields as laser propagation; laser/materials interaction, nonlinear optics; fiber optics; optical processing; laser development; detector technology; ultrafast phenomena; stimulated scattering; nonlinear optical spectroscopy; diffractive optics; thin-film optics; growth of nonlinear and laser host materials; superconductivity; and other areas. The center also participates in the industrial affiliates program, providing access to expertise and facilities to corporate members that contribute to its program.

CREOL operates 51 laboratories equipped with a full range of lasers and state-of-the-art optic facilities. Laboratories include the following:

Femtosecond Lab	High-Rep-Rate Picosecond YAG Laboratory
Nanosecond YAG Laboratory	Picosecond YAG Laboratory
Analysis Laboratory	Electro-Optics Laboratory
Optics Laboratory	Experimental Mechanics Laboratory
Turbulence Laboratory	Solid State Laser Laboratory
Propagation Laboratory	Thin-Film Laboratory
Crystal Growth Laboratory	Free-Electron Laser Laboratory
Metal-Vapor Laboratory	Laser Spectroscopy Laboratory
Single Mode and Picosecond CO <sub>2</sub> Laser Laboratory	Laser Plasma Laboratory
	Diode-Pumped Laser Laboratory

## Academic Program

Physics and Electrical Engineering are two major academic disciplines of CREOL. The academic program involves students from various science and engineering departments and reflects the diverse interests of the multi-national student/faculty population. Degrees offered include: Master of Science in Engineering (MSE), MS in Electrical Systems and Sciences, Phd in Engineering; Master's and Phd degrees in Physics. Specialized graduate course work in Optics includes Wave Optics, Optical Design, Laser Principles, Fourier Optics, Statistical Optics, Electro-Optics, Fiber Optics, Infrared Systems, Nonlinear Optics, Thin Film Optics and Optics Laboratory.

For information contact CREOL, 12424 Research Parkway, Suite 400, Orlando, FL 32826;

**Contact Person:** Dr. M. J. Soileau, Director Phone (407) 658-6800

## INSTITUTE FOR SIMULATION AND TRAINING (IST)

The Institute for Simulation and Training (IST) is an internationally recognized research institute which focuses on technology advancement in training and training systems, education, and simulation and modeling.



IST was established in 1982 at the University of Central Florida and is located in the Central Florida Research Park, adjacent to the UCF campus. The Naval Training Systems Center, the Army Project Manager for Training Devices, and the Defense Training and Performance Data Center are also located in the Research Park. Additionally, more than 140 training and simulation companies have maintained a presence in the immediate Orlando area, causing the State of Florida to pass a resolution recognizing this area as the Center of Excellence for Simulation and Training technology.

The Institute serves this simulation and training community by providing a wide range of research services and working with university faculty to help develop curriculum and degree programs in simulation and training disciplines. UCF is the first university in the nation to offer a master's degree in simulation systems.

IST's research staff consists of scientists, engineers, and students. Program Managers and Principal Investigators have complete freedom to tailor interdisciplinary research teams to specific research projects. Several faculty members and graduate students have presented award winning papers at major conferences throughout the country.

IST researchers conduct basic and applied research for a broad range of training devices and programs. IST research areas include: simulation networking, visual simulation, training systems effectiveness, artificial intelligence/expert systems, team training, computer architectures, user interface design, modeling simulation, programming, cognitive/information processing, database design and development, and instructional systems design. Laboratories, work space and administrative offices comprise nearly 30,000 square feet of total floor space. Major laboratories include: Language Technology Lab, Networking Communications Lab, Visual Systems Lab, Team Training Lab, Low Cost Flight Trainer Lab, Mathematics Simulation Lab, and the Advanced Learning Technology Transfer Center.

In its role as a leader in the simulation and training community, IST has undertaken a program of technology transfer. Included in this effort is the development of research projects with potential commercial applications, adaptation of military technology to civilian markets, and the communication of research results through seminars, publications, and workshops.

**Contact Person:** Dr. A. Louis Medin, Director, Phone (407) 658-5000; FAX (407) 658-5059

## **SPACE EDUCATION AND RESEARCH CENTER**

The Space Education and Research Center (SERC) is an interdisciplinary organization that relies on faculty participation from all five colleges of the University. SERC's mission is to:

- Perform research to advance space technology
- Provide researchers with greater access to the upper atmosphere and space
- Help commercialize space services
- Positively affect educational opportunities and experiences
- Upgrade capability through training and development programs
- Become an active participant in the international space community.

Research areas of interest include advanced launch systems, communications, the earth system sciences, educational technology, and space optics. The goal is to maximize space research opportunities for UCF faculty and students, while providing highly valued results to the space community.

In education, SERC serves as a catalyst for the development of new space related courses and programs. SERC also works with industry, government and the Central Florida school districts to improve science and mathematics education through the use of space applications and technology.

**Contact Person:** Jerry Ventre, Technical Director, 12424 Research Parkway, Suite 157, Orlando, FL 32826, Phone (407) 658-5599, FAX (407) 658-5595.

## **CENTER FOR APPLIED HUMAN FACTORS IN AVIATION**

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 joint endeavor between UCF and Charter partner Embry-Riddle Aeronautical University, Daytona Beach, Florida. Pooling the complimentary strengths of the two universities creates a research resource that is without peer for solving a vast assortment of aeronautical human



factors problems. CAHFA research initiatives are aimed at significantly reducing human factors related accidents and incidents by determining the efficacy of and by developing strategies for achieving improvements in human performance in three general areas: airspace system automation, aviation risk management, and team performance for flight crews and air traffic control personnel.

**Contact Person:** Dr. Richard Gilson, Director, Phone (407) 823-1011

### **FLORIDA SOLAR ENERGY CENTER (FSEC)**

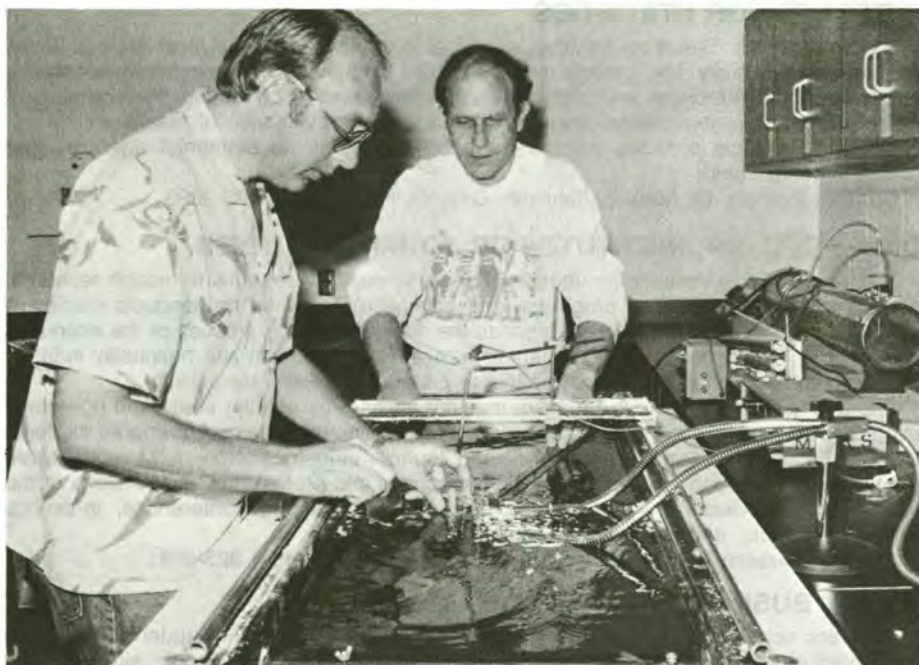
The Florida legislature created the FSEC in 1974 to conduct research on alternative energy technologies, to improve the quality of available solar energy equipment, and to educate the public about energy options. Located on a 16-acre complex at Cape Canaveral, the center serves as a statewide institute administered by the University of Central Florida.

The FSEC conducts state, federal, and privately supported research in photovoltaics, energy use in buildings, electrical end uses, solar water heating, innovative air conditioning systems, and the production and use of hydrogen. In addition, the center has developed and administers state-mandated programs that require the testing, certification, and approval of all solar energy equipment manufactured or sold in Florida. Through its public information office, FSEC responds to more than 15,000 requests for energy information each year. The center also 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. Current projects involve solar thermal systems, electric utilities research, hydrogen and energy systems, among others. For information contact the Florida Solar Energy Center, 300 State Road 401, Cape Canaveral, FL 32920-4099.

**Contact Person:** Dr. David L. Block, Director, Phone (407) 783-0300; FAX (407) 783-2571

### **FLORIDA-CANADA INSTITUTE**

The Florida-Canada Institute is hosted by the University of Central Florida for the State of Florida. The purpose of the Institute is to create and foster educational, commercial, cultural and social exchanges between Canada and Florida. The Institute offers such programs as the Canadian Speakers Series and Summer Seminars on Canadian Studies for school teachers. It provides opportunity for the state-wide dissemination of information about Canada to K-12 schools. Palm Beach Community College is the Florida State Division of Community Colleges co-host for the Florida-Canada Institute.





**Contact Person:** Dr. Henry Kennedy, Director, PC-42, Room 115. Phone (407) 823-2079

### **FLORIDA-USSR INSTITUTE (Name change pending)**

The Florida-USSR Institute is hosted by the University of Central Florida and Lake-Sumter Community College for the Florida International Affairs Commission. The purpose of the Institute is to create and foster educational, commercial, cultural and social exchanges between the USSR and Florida.

**Contact Person:** Dr Henry Kennedy, Director, PC-42, Room 115. Phone (407) 823-2079

### **FLORIDA SINKHOLE RESEARCH INSTITUTE**

The Florida Sinkhole Research Institute acts as a central clearinghouse for data and professional expertise on the sinkhole problem. The Institute provides a public service by aiding homeowners and local governments with information and advice, and also conducts extensive sinkhole related research.

**Contact Person:** Dr. Barry F. Beck, Director, Phone (407) 823-5644.

### **SMALL BUSINESS DEVELOPMENT CENTER**

The Small Business Development Center (SBDC) was established as part of a statewide program in cooperation with the U.S. Small Business Administration.

The resources of the SBDC are utilized to counsel and train small business clients and prospective owners in a variety of areas, including finance and accounting, marketing, production, engineering, and technical and paralegal problems.

**Contact Person:** Aloyse T. Polfer, Director, CEBA II, Phone (407) 823-5554.

### **CENTER FOR ECONOMIC EDUCATION**

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. Additionally, the Center conducts research in economic education.

**Contact Person:** Dr. Robert L. Pennington, Director, BA 325, Phone (407) 823-2870

### **INSTITUTE FOR STATISTICS**

The Institute for 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 governmental agencies and private organizations.

**Contact Person:** Dr. Mark E. Johnson, Director, Phone (407) 823-2289.

### **DICK POPE, SR. INSTITUTE FOR TOURISM STUDIES**

The Dick Pope Sr. Institute for Tourism Studies serves Florida tourism through research, promotion, public awareness programs, and education. The Institute conducts studies in domestic and international tourism, such as the decision-making process of the economic impact of tourism. It also conducts marketing research for tourism and hospitality industry organizations and enterprises such as theme parks, hotels, and restaurants.

The educational needs of the tourism industry are met by offering credit and non-credit courses. A four-year baccalaureate program in hospitality management prepares students to work as managers in the hospitality and tourism industries. Non-credit, non-degree programs tailored to the needs of specific enterprises and professional associations of the tourism industry include short courses, seminars, workshops, conferences, in-service training programs, and executive development programs.

**Contact Person:** Dr. Ady Milman, Acting Director, Phone (407) 823-5641

### **SMALL BUSINESS INSTITUTE**

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 Small Business Administration does not only satisfy this need, but at the same time provides free professional help to small businessmen who are 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.

**Contact Person:** Dr. Ron Rubin, Director, Phone (407) 823-2682

## **INSTITUTE FOR TECHNICAL DOCUMENTATION**

The Institute for Technical Documentation offers a variety of services of client companies, including the development of original technical documentation, the translation of documentation written in foreign languages, and the development of seminars to assist clients in writing their own documentation.

The Institute consists of a core of permanent professional staff, supplemented by University faculty, staff, and students, all of whom have demonstrated expertise in technical writing of documentation. These services are enhanced by the cooperative efforts of educators, engineers, foreign language experts, psychologists, and scientists who act as consultants to the Institute.

Computer-assisted processing aids in translating foreign languages, word processing and editing text, gathering reference material, and conducting information searches. Trained writers, established facilities, and continued contact with personnel in industry and research enable the Institute to engage in a wide variety of documentation projects.

**Contact Person:** Gloria W. Jaffe, Director, FA 450, (407) 823-2212.

## **INTERNATIONAL CENTER FOR MANAGEMENT AND EXECUTIVE DEVELOPMENT**

The Center for Executive Development of the College of Business Administration provides seminars, workshops, and conferences on business and management-related topics. The Center is designed to support an organization's needs relating to every aspect of business management. This support may be in the form of short, intensive seminars presented on site or on campus; special topic seminars prepared for particular needs; or specially scheduled workshops and seminars. Excellence in programming and individual attention are key objectives of the Center. Examples of seminars and workshops held include: Management Development Series, Train-the-Trainer, Purchasing Policies and Practices, Effective Nursing Management, CPA Review, and Tax and Accounting Conference.

**Contact Person:** TBA, Director, Phone (407) 823-2446.



# COURSE DESCRIPTIONS

## CLASSIFICATION OF COURSES

The University course numbering system is as follows:

- 1000-2999 are freshman and sophomore level courses and are designed primarily for these students.
- 3000-4999 are junior- and senior-level courses 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 Dean of Graduate studies, selected 4000-4999 courses may serve the needs of individual graduate students.
- 5000-5999 are beginning graduate and advanced undergraduate level courses—open to graduate students and those seniors who receive approval of the appropriate Dean(s).
- 6000-6999 are beginning and professional level courses open only to graduate students and do not apply toward a baccalaureate degree. (See Graduate Catalog)

## FLORIDA STATEWIDE COURSE NUMBERING SYSTEM

The course numbers appearing in the catalog are part of a statewide system of prefixes and numbers developed for use by all public postsecondary and participating private institutions in Florida. One of the major purposes of this system is to make transferring easier by identifying courses which are equivalent, no matter where they are taught in the state. All courses designated as equivalent will carry the same prefix and last three digits.

The classifying and numbering of courses was done by community college and university faculty members in each academic discipline. Their work was reviewed by faculty members in all of Florida's postsecondary institutions who made suggestions and criticisms to be incorporated into the system.

The course numbering system is, by law, descriptive and not prescriptive. It in no way limits or controls what courses may be offered or how they are taught. It does not affect course titles or descriptions at individual schools. It seeks only to describe what is being offered in postsecondary education in Florida in a manner that is intelligible and useful to students, faculty, and other interested users of the system.

The course numbering system was developed so that equivalent courses could be accepted for transfer without misunderstanding. Each public institution is to accept for transfer credit any course which carries the same prefix and last three digits as a course at the receiving institution. For example, if a student has taken SYG-000 at a community college, he cannot be required to repeat SYG-000 at the school to which he transfers. Further, credit for any course or its equivalent, as judged by the appropriate faculty task force and published in the course numbering system, which can be used by a native student to satisfy degree requirements at a state university can also be used for that purpose by a transfer student regardless of where the credit was earned.

It should be noted that a receiving institution is not precluded from using nonequivalent courses for satisfying certain requirements.

### General Rule for Course Equivalencies

All undergraduate courses bearing the same alpha prefix and last three numbers (and alpha suffix, if present) have been agreed upon to be equivalent. For example, an introductory course in sociology is offered in over 40 postsecondary institutions in Florida. Since these courses are considered to be equivalent, each one will carry the designator SYG-000.

### First Digit

The first digit of the course number is assigned by the institution, generally to indicate the year it is offered—i.e., 1 indicates freshman year, 2 indicates sophomore year. In the sociology example mentioned above one school which offers the course in the freshman year will number it SYG 1000; a school offering the same course in the sophomore year will number it SYG 2000. The variance in the first number does not affect the equivalency. If the prefix and last three digits are the same, the courses are substantially equivalent.



## Titles

Each institution will retain its own title for each of its courses. The sociology courses mentioned above are titled at different schools "Introductory Sociology," "General Sociology," and "Principles of Sociology." The title does not affect the equivalency. The courses all carry the same prefix and last three digits; that is what identifies them as equivalent.

## Lab Indicators

Some courses will carry an alpha suffix indicating a lab or field experience. The alpha suffixes "L" and "C" are used as follows to indicate laboratories:

"L" means either (a) a course, the content of which is entirely laboratory or (b) the laboratory component of a lecture-lab sequence in which the lab is offered at a different time/place from the lecture course.

"C" means a combined lecture-lab course in which the lab is offered in conjunction with the lecture at the same time/same place.

Examples: Marine Biology

OCB-013 (lecture only)

OCB-013L (lab only)

Marine Biology  
with lab

OCB-013C (lecture & lab combined)

Therefore, OCB 013C is equivalent to OCB-013 plus OCB-013L.

An alphabetical listing of prefixes:

ACG	Accounting General	CLA	Classical and Ancient Studies
ACO	Accounting: Occupational/Technical	CLP	Clinical Psychology
ADE	Adult Education	COC	Computer Concepts
ADV	Advertising	COE	Cooperative Education
AFH	African History	COM	Communications
AFR	Air Force ROTC	COP	Computer Programming
AMH	American History	COT	Computer Theory
AML	American Literature	CPO	Comparative Politics
ANT	Anthropology	CRM	Computer Resources/Management
APA	Applied Accounting	CRW	Creative Writing
APB	Applied Biology	CWR	Civil Water Resources
ARE	Art Education	CYP	Communication Psychology
ARH	Art History	DAA	Dance Activities
ART	Art	DAE	Dance Education
ASH	Asian History	DEP	Development Psychology
AST	Astronomy	EAB	Experimental Analysis of Behavior
AVM	Aviation Management	EAS	Engineering: Aerospace
BCH	Biochemistry	ECM	Engineering: Computer Mathematics
BCN	Building Construction	ECO	Economics
BOT	Botany	ECP	Economic Problems & Policy
BSC	Introductory Biology	ECS	Economic Systems & Development
BTE	Business Teacher Education	EDA	Education: Administration
BUL	Business Law	EDE	Education: Elementary
CAP	Computer Applications	EDF	Education: Foundation
CBH	Comparative Psychology & Animal Behavior	EDG	Education: General
CCE	Civil Construction Engineering	EDH	Education: Higher
CCJ	Criminology & Criminal Justice	EDM	Education: Middle School
CDA	Computer Design/Architecture	EDP	Education: Psychology
CEG	Civil Geotechnical Structures	EDS	Education: Supervision
CES	Civil Engineering Structure	EEC	Education: Early Childhood
CET	Computer Engineering Technology	EED	Education: Emotional Disorders
CGN	Civil Engineering	EEL	Engineering: Electrical
CGS	Computer General	EES	Environmental Engineering Science
CHI	Chinese	EET	Electrical Electronic Technology
CHM	Chemistry	EEX	Education: Exceptional Child-Care Competencies
CHS	Chemistry-Specialized	EGC	Guidance & Counseling
CIS	Computer & Information Systems	EGM	Engineering: Mechanical
CJT	Criminal Justice Technology	EGN	Engineering: General



EGS	Engineering: Support	LAE	Language Arts & English Education
EIN	Engineering: Industrial	LAH	Latin American History
ELD	Education: Specific Learning Disabilities	LEI	Leisure
EMA	Engineering: Materials	LIN	Linguistics
EME	Education: Technology & Media	LIS	Library Science
EML	Engineering: Mechanical	LIT	Literature
EMR	Education: Mental Retardation	MAA	Mathematics-Analysis
ENC	English Composition	MAC	Mathematics-Calculus & Precalculus
ENG	English-General	MAD	Mathematics-Discrete
ENL	English Literature	MAE	Mathematics Education
ENU	Engineering: Nuclear	MAN	Management
ENV	Engineering: Environmental	MAP	Mathematics-Applied
ENY	Entomology	MAR	Marketing
EPH	Education: Physical & Multiple Handicapped	MAS	Mathematics: Algebraic Structures
ESE	Education: Secondary	MAT	Mathematics
ESI	Engineering Systems-Industrial	MCB	Microbiology
ESL	English as a Second Language	MET	Meteorology
EST	Electronic Specialty Technology	MGF	Mathematics: General & Finite
ETC	Engineering Tech: Civil	MHF	Mathematics: History & Foundations
ETG	Engineering Tech: General	MIS	Military Science
ETI	Engineering Tech: Industrial	MLS	Medical Laboratory Science
ETM	Engineering Tech: Mechanical	MMC	Mass Media Communication
EUH	European History	MRE	Medical Records
EVI	Education: Visually Impaired-Blind	MTG	Mathematics: Topology & Geometry
EVS	Environmental Science	MUC	Music: Composition
EVT	Education: Vocational/Technical	MUE	Music Education
EXP	Experimental Psychology	MUH	Music: History/Musicology
FIL	Film	MUH	Music: Music Literature
FIN	Finance	MUN	Music: Musical Ensembles
FLE	Foreign Language Education	MUS	Music
FOT	Foreign & Biblical Languages in Translation	MUT	Music: Theory
FRE	French Language	MVB	Music: Applied-Brasses
FRW	French Literature (Writings)	MVK	Music: Applied-Keyboards
FSS	Food Service Systems	MVO	Music: Applied-Other Instruments
GEA	Geography: Regional Areas	MVP	Music: Applied-Percussion
GEB	General Business	MVS	Music: Applied-Strings
GEO	Geography	MVV	Music: Applied-Voice
GER	German Language	MVW	Music: Applied-Woodwinds
GEW	German Literature (Writings)	NUR	Nursing
GLY	Geology	NUU	Nursing Universals
HBR	Modern Hebrew Language	OCE	Oceanography
HBT	Hebrew Language Translation	OST	Office Systems Technology
HFT	Hotel and Restaurant	PAD	Public Administration
HLP	Health Education	PCB	Process Cell Biology
HMW	Modern Hebrew Literature (Writings)	PCO	Psychology for Counseling
HSA	Health Services Administration	PEL	Physical Education Acts (GEN)-Object Centr., Land
HSC	Health Science	PEM	Physical Education Acts (GEN)-Perform Centr., Land
HUM	Humanities	PEN	Physical Education Acts (GEN)-Water, Snow, Ice
HUN	Human Nutrition	PEO	Physical Education Acts (PROFNL)-Object Centr., Land
IDH	Interdisciplinary Honors	PEP	Physical Education Acts (PROFNL)-Perf. Centr., Land
INP	Industrial & Applied Psychology	PEQ	Physical Education Acts (PROFNL)-Water, Snow, Ice
INR	International Relations	PET	Physical Education Theory
ISM	Information Systems Management	PGY	Photography
ISS	Interdisciplinary Social Sciences	PHH	Philosophy, History of
ITA	Italian Language	PHI	Philosophy
ITW	Italian Literature (Writings)		
JOU	Journalism		
JST	Judaic Studies		

PHM	Philosophy of Man & Society	SOP	Social Psychology
PHS	Physics-Specialized	SOW	Social Work
PHT	Physical Therapy	SPA	Speech Pathology & Audiology
PHY	Physics	SPC	Speech Communication
PHZ	Physics Continued	SPN	Spanish Language
PLA	Paralegal/Legal Asst./Legal Admin.	SPS	School Psychology
POS	Political Science	SPW	Spanish Literature (Writings)
POT	Political Theory	SSE	Social Studies Education
PPE	Psychology of Personality	STA	Statistics
PSB	Psychobiology	STD	Student Development
PSC	Physical Sciences	SUR	Surveying
PSY	Psychology	SYA	Sociology Analysis
PUP	Public Policy	SYD	Sociology of Demography and Area of Studies
PUR	Public Relations	SYG	Sociology, General
RAT	Radiation Therapy	SYO	Sociology--Social Organizations
REA	Reading	SYP	Sociology--Social Processes
RED	Reading Education	TAX	Taxation
REE	Real Estate	THE	Theatre
REL	Religion	TPA	Theatre Production & Administration
RET	Respiratory Therapy	TPP	Theatre Performance & Performance Training
RMI	Risk Management & Insurance	TTE	Transportation & Traffic Engineering
RTE	Radiological Sciences	URP	Urban and Regional Planning
RTV	Radio-Television	VIC	Visual Communication
RUS	Russian Language	ZOO	Zoology
SCE	Science Education		
SED	Speech Education		
SLS	Student Life Skills		

### 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 of subcollegiate 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 bulletin, special courses may be available. Consult your academic advisor for details.

	Undergraduates		Special Grad <sup>1</sup>
Directed Independent Studies	3905	4906	5907
Directed Independent Research		4912	5917
Special Topics/Seminars	3930	4932	5937
Internships, Practicums, Clinical Practice	3940	4941	5944 <sup>2</sup>
Directed Independent Research		4912	5917
Cooperative Education (COE) <sup>3</sup>	1949, 2949, 3949, 4949		5949
Honors Undergraduate Thesis	3970	4970	

These courses may be assigned variable credit. Some may be repeated upon approval.

<sup>1</sup>The Special Graduate Courses are primarily for graduate students, but may be taken by advanced seniors with the consent of their deans.

<sup>2</sup>Enrollment is limited to those students who are fully admitted to the Graduate Program.

<sup>3</sup>Enrollment is limited to those students who are admitted into the co-op program.

### PR: PREREQUISITE

A course in which credit must be earned prior to enrollment in the listed course.

### CR: COREQUISITE

A course which must be taken concurrently with or prior to the listed course.

### CI: CONSENT OF INSTRUCTOR

### HOURS CODE

Each course listed is followed by a code which shows hours credit, and contact hours.

Example:



**CHM 3120C****AS 5(3,6)**

**Analytical Chemistry I:** CHM 3120C carries 5 hours credit but requires 9 contact hours; 3 in class and 6 in laboratory or field work. It is scheduled to be offered in the College of Arts and Sciences.

College designation: AS = Arts and Sciences; BA = Business Administration;  
ED = Education; EN = Engineering; HPA = Health and Public  
Affairs; US = Undergraduate Studies

**AVAILABILITY OF COURSES**

The University does not offer all of the courses listed in the catalog each year. The Class Schedule should be consulted for those courses offered each semester.

**ACG 2001** **BA 3(3,0)**

**Principles of Financial Accounting:** PR: Sophomore standing and MAC 1104 or equivalent. Nature of accounting, financial statements, the accounting cycle, assets, current liabilities, long-term debt, and owner's equity; accounting for partnerships and corporations.

**ACG 2023** **BA 6(6,0)**

**Principles of Accounting I and II:** PR: Junior standing and MAC 1104 or equivalent. Same as 2001, 2301. Credits may not be earned in both ACG 2023 and the ACG 2001, 2071 sequence.

**ACG 2301** **BA 3(3,0)**

**Principles of Managerial Accounting:** PR: ACG 2001 and MAC 1104 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 3103** **BA 3(3,1)**

**Financial Accounting I:** PR: Junior standing and MAC 1104, ECO 2013, ECO 2023; and ACG 2071 or ACG 2023 or its equivalent with a grade of "C" in the accounting course. The accounting process, content and analysis of financial statements, and framework of accounting theory.

**ACG 3113** **BA 3(3,0)**

**Financial Accounting II:** PR: ACG 3103 with a grade of "C" or better. A continuation of ACG 3103.

**ACG 3301** **BA 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 3(3,0)**

**Cost Accounting I:** PR: Junior standing, MAC 1104, ECO 2013, and ECO 2023, and ACG 2071 with a grade of "C" in ACG 2071, completion of or concurrent enrollment in ACG 3103. Cost concepts, cost of goods manufactured, job order costing, process costing, standard costing, relevant cost analysis, and overhead/joint cost allocations.

**ACG 3501** **BA 3(3,0)**

**Financial Accounting for Governmental and Nonprofit Organizations:** PR: ACG 3103 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 4123** **BA 3(3,0)**

**Financial Accounting III:** PR: ACG 3113 with a grade of "C" or better. Specialized financial accounting topics.

**ACG 4203** **BA 3(3,0)**

**Financial Accounting IV:** PR: ACG 3113 with a grade of "C" or better. Accounting for business combinations, consolidations.

**ACG 4401** **BA 3(3,1)**

**Accounting Information Systems I:** PR: ACG 3103 and CGS 3000, ACG 3113 and ACG 3361 with a grade of "C" or better. An introduction to manual and computer-based accounting information systems.

**ACG 4651** **BA 3(3,0)**

**Auditing:** PR: ACG 3113 and ACG 4401 with a grade of "C" or better. The standards, practices, and procedures followed in the audit function.

**ACG 5005** **BA 3(3,0)**

**Financial Accounting Concepts:** PR: Acceptance into the graduate program. (Not open for Accounting majors.) The conceptual background for financial statements.

**ACG 5206** **BA 3(3,0)**

**Financial Accounting V:** PR: ACG 4123 or C.I. and meet school admission requirements. Problems of partnerships, accounting for branches, bankruptcy, installment sales, accounting for estates and trusts, and interim reporting.

**ACG 5255** **BA 3(3,0)**

**International and Multinational Accounting:** PR: ACG 4123 or C.I. and meet school admission requirements. An examination of the environmental factors affecting international accounting concepts and standards. Cross-country differences in accounting treatments are compared.



- ACG 5346** **BA 3(3,0)**  
**Cost Accounting II:** PR: ACG 3361, ACG 4123, FIN 3403, ECO 3411 or C.I. and meet school admission requirements. Overhead allocation, capital budgeting and analysis, EOQ analysis, decentralization, and quantitative decision analysis.
- ACG 5435** **BA 3(3,0)**  
**Accounting Control Systems:** PR: Graduate standing, ACG 3361 and ACG 4401, or ACG 5625, or C.I. An integrative course designed to provide a systematic approach to the integration of financial accounting, managerial accounting, taxation, and general business courses.
- ACG 5506** **BA 3(3,0)**  
**Accounting for Governmental and Nonbusiness Organizations:** PR: ACG 4123 and meet School admission requirements. (Not open to students with credit for ACG 3501 or equivalent)
- ACG 5625** **BA 3(3,0)**  
**Auditing and EDP:** PR: ACG 4401, ACG 4123, ACG 4651 and meet school admission standards. An examination of auditing procedures followed when a company uses a computer to process financial records.
- ACG 5636** **BA 3(3,0)**  
**Advanced Auditing:** PR: ACG 4401, ACG 4123, ACG 4651, STA 3023 and meet school admission requirements. Special topics relative to the standards, practices, and procedures followed in the audit function.
- ACG 5675** **BA 3(3,0)**  
**Operational Auditing:** PR: ACG 4123, ACG 4651 and meet school admission requirements. The standards, principles, practices, and procedures followed in the internal audit function.
- ADE 4382** **ED 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 4000** **AS 3(3,0)**  
**Principles of Advertising:** Overview of the field of advertising; purposes, techniques, the role of agencies, advertisers and the media.
- ADV 4003** **AS 3(3,0)**  
**Advertising Layout and Preparation:** PR: ADV 4000 or C.I. Advertising design and layout for print media; reproduction methods and requirements; art background not required.
- ADV 4101** **AS 3(3,0)**  
**Advertising Copy and Campaigns:** PR: ADV 4000 or C.I. and Grammar Proficiency Exam. Creative copywriting for print, RTV, and other media. Campaign strategies and formulation.
- ADV 4103** **AS 3(3,0)**  
**Radio-Television Advertising:** PR: ADV 4000 or C.I. Radio and television advertising sales, including interpretation of rate structures, program audiences, and creative approaches to sponsor needs.
- AFR 1101** **US 1(1,2)**  
**The Air Force Today I:** PR: Qualification for Air Force ROTC or permission of Professor of Aerospace Studies. History, mission, organization, and doctrine of the United States Air Force and a study of U.S. Strategic Offensive and Defensive Forces.
- AFR 1111** **US 1(1,2)**  
**The Air Force Today II:** PR: AFR 1101 or permission of Professor of Aerospace Studies. A brief review of the Army, Navy, and Marine force. An introduction to special operations and counterinsurgency.
- AFR 2130** **US 1(1,2)**  
**The Development of Airpower I:** PR: AFR 1111 or approval of the PAS. A study of the development of airpower from experiments by 18th-century balloonists to the achievement of combat airpower capabilities during World War II.
- AFR 2131** **US 1(1,2)**  
**The Development of Airpower II:** PR: AFR 2130 or approval of PAS. 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** **US 3(3,2)**  
**Air Force Leadership and Management I:** PR: GMC or Two-Year Program Selection and/or approval of the PAS. An introductory study of Air Force management fundamentals, communications skills, and basic leadership styles.
- AFR 3230** **US 3(3,2)**  
**Air Force Evaluation and Management II:** PR: AFR 3220 or approval of the PAS. A concluding study of Air Force management fundamentals, including performance evaluation skills.
- AFR 4201** **US 3(3,2)**  
**National Security Forces in Contemporary American Society I:** PR: AFR 3230 or approval of PAS. Examination of the military and its role in American society. A study of the framework and formation of defense strategy.
- AFR 4210** **US 3(3,2)**  
**National Security Forces in Contemporary American Society II:** PR: AFR 4201 or approval of PAS. 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 3(3,0)  
**U.S. History: 1492-1877:** Survey of U.S. history from 1492-1877.
- AMH 2020** AS 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 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 3(3,0)  
**American Economic History:** PR: AMH 2010 and 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 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 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.
- AMH 3421** AS 3(3,0)  
**History of Florida to 1845:** PR: AMH 2010 and 2020 or C.I.
- AMH 3423** AS 3(3,0)  
**Florida History 1845-Present:** PR: AMH 2010 and 2020 or C.I.
- AMH 3441** AS 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 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 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 3560** AS 3(3,0)  
**Women in American History:** Women in colonial America, "republican" motherhood, "separate spheres," suffrage battle, entry into paid labor force, new educational and professional opportunities, changing family pattern, "new" feminism.
- AMH 3570** AS 3(3,0)  
**Black American History:** PR: AMH 2010 and 2020 or C.I. History of Negroes from their African heritage through American slavery to freedom and their role in 20th-century America.
- AMH 3586** AS 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 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 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 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 4130** AS 3(3,0)  
**The Age of the American Revolution, 1763-1789:** PR: AMH 2010 and 2020 or C.I. The American Revolution — its origins, course, and impact upon American society — the Articles of Confederation, the Philadelphia Convention and its work.
- AMH 4140** AS 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 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 3(3,0)  
**Civil War and Reconstruction:** PR: AMH 2010 and 2020 or C.I. Reconstruction, and impact of industrialism.
- AMH 4201** AS 3(3,0)  
**Robber Baron Era:** PR: AMH 2010 and 2020 or C.I. The Agrarian Revolt, the Spanish-American War, and the Progressive Era.



- AMH 4231** **AS 3(3,0)**  
**United States History: 1914-1945:** PR: AMH 2010 and 2020 or C.I. The progressive Reforms of Woodrow Wilson, World War I, post-war prosperity, the Depression, and the New Deal; World War II.
- AMH 4270** **AS 3(3,0)**  
**United States History: 1945-Present:** PR: AMH 2010 and 2020 or C.I. Contemporary America from World War II.
- AMH 4311** **AS 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 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 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 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 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 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 3(3,0)**  
**Colloquium in Early U.S. Hist., 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 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.
- AMH 5176** **AS 3(3,0)**  
**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 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 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 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 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 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 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.
- AMH 5566** **AS 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.
- AML 3031** **AS 3(3,0)**  
**American Literature I:** PR: ENC 1102. Major American writers from beginning through Whitman.
- AML 3051** **AS 3(3,0)**  
**American Literature II:** PR: ENC 1102. Major American writers from Twain to present.
- AML 4101** **AS 3(3,0)**  
**American Novel:** PR: ENC 1102. Analysis of major American novelists.
- AML 4261** **AS 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.



<b>AML 4321</b>	<b>AS 3(3,0)</b>
<b>Modern American Literature:</b> PR: ENC 1102. Major writers of modern American literature.	
<b>ANT 2003</b>	<b>AS 3(3,0)</b>
<b>General Anthropology:</b> An introductory survey of the four major subfields of anthropology: Social Anthropology, Physical Anthropology, Linguistics, and Archaeology.	
<b>ANT 3122</b>	<b>AS 3(3,0)</b>
<b>Archaeological Method and Theory:</b> A survey of archaeological field and laboratory techniques, including the interpretation of written archaeological reports.	
<b>ANT 3141</b>	<b>AS 3(3,0)</b>
<b>The Emergence of Civilizations:</b> The emergence of high civilizations in Europe, Africa, Asia, and the ancient Americas.	
<b>ANT 3142</b>	<b>AS 3(3,0)</b>
<b>Old World Prehistory:</b> A comparative study of social evolution in Africa, Europe, and Asia from the earliest humans to the beginnings of recorded history.	
<b>ANT 3144</b>	<b>AS 3(3,0)</b>
<b>Prehistory of the American Indians:</b> The trajectory of New World society from the earliest big game hunters to the European conquest of the American civilizations.	
<b>ANT 3145</b>	<b>AS 3(3,0)</b>
<b>Archaeology of Complex Society:</b> Theoretical perspectives on ancient hierarchies of power.	
<b>ANT 3163</b>	<b>AS 3(3,0)</b>
<b>Mesoamerican Archaeology:</b> An introduction to the prehistory of Mexico, Guatemala, and upper Central America from earliest times through the Spanish conquest.	
<b>ANT 3211</b>	<b>AS 3(3,0)</b>
<b>Archaeology and Human Culture</b> The evolution of human society from foraging and hunting groups to the earliest cities and states.	
<b>ANT 3241</b>	<b>AS 3(3,0)</b>
<b>Magic, Ritual, and Belief:</b> Patterns in religious behavior in various societies, with primary emphasis on myth, rite, taboo, and festival social phenomena.	
<b>ANT 3262</b>	<b>AS 3(3,0)</b>
<b>Rural Society:</b> An introduction to rural society in the U.S. and abroad. Problems of third world development in the rural sector.	
<b>ANT 3271</b>	<b>AS 3(3,0)</b>
<b>Law and Culture:</b> An introduction to law as an organizing force in society, including a study of primitive forms of law and social control.	
<b>ANT 3302</b>	<b>AS 3(3,0)</b>
<b>Sex, Gender and Culture:</b> The traditional and changing roles of women and men viewed in a cross-cultural perspective.	
<b>ANT 3311</b>	<b>AS 3(3,0)</b>
<b>Indians of the Southeastern United States:</b> A study of the social and cultural history of the Indians of the Southeast.	
<b>ANT 3312</b>	<b>AS 3(3,0)</b>
<b>Ethnology of North American Indians:</b> A survey of the aboriginal cultures of North America, with emphasis on the pre-contact cultural condition.	
<b>ANT 3313</b>	<b>AS 3(3,0)</b>
<b>Indians of North America High Plains:</b> A study of the social and cultural history of the Indians of the North American High Plains.	
<b>ANT 3328</b>	<b>AS 3(3,0)</b>
<b>Maya Archaeology:</b> An examination of the Prehistoric Maya culture focusing on both the archaeology and current issues in the field.	
<b>ANT 3332</b>	<b>AS 3(3,0)</b>
<b>People and Cultures of Latin America:</b> An overview of the history and society of the peoples of Latin America, emphasizing patterns of subsistence and social organization.	
<b>ANT 3360</b>	<b>AS 3(3,0)</b>
<b>Peoples of the Far East:</b> A survey of the peoples of China, Japan, and Korea from the anthropological perspective.	
<b>ANT 3363</b>	<b>AS 3(3,0)</b>
<b>Anthropology of Japan:</b> An examination of Japanese culture and its contemporary behavioral and organizational patterns by drawing upon archaeology, cultural history, linguistics, cultural anthropology, and social organization.	
<b>ANT 3410</b>	<b>AS 3(3,0)</b>
<b>Cultural Anthropology (Anthropology II):</b> An introduction to human diversity as exemplified among various cultures and ethnic groups.	
<b>ANT 3422</b>	<b>AS 3(3,0)</b>
<b>Peoples of the World:</b> A comparative study of religion, family, politics, philosophy, and other elements of socio-cultural organization of pre-literate societies.	
<b>ANT 3432</b>	<b>AS 3(3,0)</b>
<b>Culture and the Individual:</b> Focus on the socio-cultural dimensions of child rearing, mental illness/mental health, sexual behavior, personality, and testing.	

<b>ANT 3511</b>	<b>AS 3(3,0)</b>
<b>The Human Species:</b> Human biological variation in an evolutionary perspective.	
<b>ANT 3541</b>	<b>AS 3(3,0)</b>
<b>Biobehavioral Anthropology:</b> An introduction to the study of human behavior in terms of mutual interaction between human biology and cultural environments.	
<b>ANT 3610</b>	<b>AS 3(3,0)</b>
<b>Language and Culture:</b> PR: Sophomore standing. The study of language in a non-western setting; language and behavior; language and perception.	
<b>ANT 4084</b>	<b>AS 3(3,0)</b>
<b>Anthropological Method and Theory:</b> Method, theory, research design and field techniques in the anthropological endeavor.	
<b>ANT 4124</b>	<b>AS 9(9,0)</b>
<b>Advanced Archaeological Fieldwork:</b> Supervised archaeological fieldwork. Students admitted only with permission of instructor.	
<b>ANT 4180</b>	<b>AS 3(1,4)</b>
<b>Seminar in Laboratory Analysis:</b> The processing of archaeological finds from excavation through publication.	
<b>ANT 4462</b>	<b>AS 3(3,0)</b>
<b>Medical Anthropology:</b> The therapeutic environment examined in a cross-cultural perspective. The implications of the comparative approach to health care in the industrialized world.	
<b>APA 3471</b>	<b>BA 3(3,0)</b>
<b>Accounting for Engineers:</b> General Accounting principles and practice, cost accounting, budgeting, and control techniques. Not usable for BSBA degree credit.	
<b>APB 3342C</b>	<b>HPA 3(1,4)</b>
<b>Quantitative Biological Methods:</b> PR: BSC 2010, MCB 3013, CHM 2046. A laboratory course which presents modern methods and instrumentation used in quantitative biological experimentation.	
<b>APB 3600</b>	<b>HPA 3(3,0)</b>
<b>Introduction to Pharmacology:</b> Review of terminology and regulations. Study of drug types and usage.	
<b>APB 4651</b>	<b>HPA 2(2,0)</b>
<b>Medical Pharmacology I:</b> Drugs in pulmonary diseases; effects on nervous system, and neuroeffectors, depressants & stimulants; influence on metabolism and endocrines. <i>Bronchodilators, mycolytics, etc.</i>	
<b>APB 4652</b>	<b>HPA 2(2,0)</b>
<b>Medical Pharmacology II:</b> PR: APB 4651 or C.I. Drugs used in cardiovascular disorders. Includes inotropic, chronotropic agents, beta blocker drugs, calcium channel antagonists.	
<b>APB 5236</b>	<b>AS 3(3,0)</b>
<b>Applied Microbiology:</b> PR: MCB 3013C or C.I. Microbial biochemistry of industrial processes including: economics, screening, scale up, quality control and applied genetics.	
<b>ARE 3550</b>	<b>AS 3(3,0)</b>
<b>Introductory to Art Therapy:</b> A survey of the literature, theories and practices of art therapy.	
<b>ARE 3554</b>	<b>AS 3(3,0)</b>
<b>Art Therapy Methods:</b> This course presents methodologies used by the Art Therapists and demonstrates how Art Therapy is put into practice.	
<b>ARE 3662</b>	<b>AS 3(3,0)</b>
<b>Community Arts I:</b> A Survey of the basic theoretical issues related to community arts programming.	
<b>ARE 3663</b>	<b>AS 3(3,0)</b>
<b>Community Arts II:</b> A survey of the basic methodologies for applying the theoretical issues to community arts programming taught in Community Arts I.	
<b>ARE 3944</b>	<b>AS 3(2,3)</b>
<b>Community Arts Practicum:</b> A supervised experience for students to facilitate art programming in a variety of community settings.	
<b>ARE 4262</b>	<b>AS 3(3,0)</b>
<b>Methods in Art Administration:</b> PR: ARH 3820. Theories and methodologies for designing, implementing and administering art programs for a variety of populations.	
<b>ARE 4351</b>	<b>ED 2(2,0)</b>
<b>Methodology for Teaching K-12 Art Education I:</b> Methods and curriculum materials for teaching art in elementary and secondary schools.	
<b>ARE 4352</b>	<b>ED 2(2,0)</b>
<b>Methodology for Teaching K-12 Art Education II:</b> Continuation of ARE 4143.	
<b>ARE 4313</b>	<b>ED 3(2,1)</b>
<b>Art in the Elementary School:</b> Basic principles, purposes, scope and sequence; organization for instruction; evaluation of activities; selected art experiences.	
<b>ARE 4945</b>	<b>AS 12(0,12)</b>
<b>Community Arts Internship:</b> An on-site in-depth experience for community arts majors with a concentration in administration, education, or therapeutic experience.	
<b>ARE 5251</b>	<b>ED 3(2,1)</b>
<b>Art for Exceptionalities:</b> Concepts, principles, and methods of integrating art processes into the education of the physically, emotionally, and mentally handicapped.	



- ARE 5255** **ED 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 3(3,0)**  
**Found Arts:** PR: C.I. Materials available for instruction in the public schools will be explored in depth in relation to their appropriateness and productive qualities.
- ARE 5648** **ED 3(3,0)**  
**Contemporary Visual Arts Education:** PR: C.I. Continued study of current programs and innovations in public school Visual Arts Programs.
- ARH 2050** **AS 3(3,0)**  
**The History of Art I:** Painting, sculpture and architecture from the Prehistoric Era through the Renaissance period.
- ARH 2051** **AS 3(3,0)**  
**The History of Art II:** Painting, sculpture and architecture from the Baroque through the 20th century.
- ARH 2051H** **AS 3(3,0)**  
**Honors History of Art II:** Same as ARH 2051 with honors-level content.
- ARH 3060** **AS 3(3,0)**  
**History of Architecture:** History of Architecture - Survey of Western architectural styles.
- ARH 3456** **AS 3(3,0)**  
**Art After 1945:** A seminar for upper-level art students to examine historically the art of Post WWII.
- ARH 3520** **AS 3(3,0)**  
**African Art:** Teach the continuatives between African, Afro-Caribbean and Afro-American Arts.
- ARH 3530** **AS 3(3,0)**  
**Asian Art:** History of visual arts of China, Japan, India, and other Eastern cultures.
- ARH 3683** **AS 3(3,0)**  
**Southern Folk Arts:** History of Folk Architecture, Ceramics, Painting, Sculpture, Textiles and Toys in three main Southern ethnic cultures: EuroAmerican, Afro-American, and American Indian.
- ARH 3710** **AS 3(3,0)**  
**History of Photography:** The development of still photography in terms of historical, aesthetic and social content from 1839 to the present.
- ARH 3720** **AS 3(3,0)**  
**History of Prints:** History of printmaking in the Western world, surveying works by the "great printmakers."
- ARH 3802** **AS 3(3,0)**  
**Happenings Art:** To study the aesthetic and social significance of "Total Art" in its attempt to break down the customary distinctions between life and art.
- ARH 3820** **AS 3(3,0)**  
**Visual Arts Administration:** Vitas; grant applications; Personnel; copyright laws; museum practices, etc.
- ARH 4071** **AS 4(4,0)**  
**Symbolism in the Visual Arts:** A study of the origin, migration, and transmutation of signs, symbols and images in art history.
- ARH 4170** **AS 3(3,0)**  
**Greek & Roman Art:** A study of the art and architecture of the ancient civilizations of the Mediterranean, comprising Greece, Etruria, and Rome.
- ARH 4310** **AS 3(3,0)**  
**Early Italian Renaissance Art:** A survey of Italian Art and Architecture from 1300 to 1500.
- ARH 4312** **AS 3(3,0)**  
**Later Italian Renaissance Art:** A survey of Art in Italy, from the High Renaissance through Mannerism.
- ARH 4350** **AS 3(3,0)**  
**Baroque Art:** A study of European Art in the 17th and 18th centuries.
- ARH 4430** **AS 3(3,0)**  
**19th Century Art:** 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 3(3,0)**  
**20th Century Art:** PR: ARH 2051. A survey of the art from Fauvism, Futurism, Cubism to the art of the present.
- ARH 4458** **AS 3(3,0)**  
**Women and Art in 20th Century America:** A course on women artists, feminist aesthetics, and women's artistic cultures, focusing on 20th century America.
- ARH 4655** **AS 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 4690** **AS 1(1,0)**  
**Mexican Art—Fieldwork:** A field trip in connection with ARH 4655.
- ARH 4730** **AS 4(4,0)**  
**Environmental Art:** Analysis of aesthetic design factors related to city planning, architecture, product design, and experimental environmental arts.

<b>ARH 4800</b>	<b>AS 3(3,0)</b>
<b>Theory and Criticism of the Visual Arts:</b> Criteria of criticism, analysis of works, elements of psychology and sociology of art. Developments in the art of the 20th century.	
<b>ARH 4892</b>	<b>AS 3(3,0)</b>
<b>Women in Art:</b> 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 the ways in which women have been represented in art.	
<b>ARH 5451</b>	<b>AS 3(3,0)</b>
<b>Artistic Worldviews:</b> PR: Post-Bac. status, 9 hours of art courses, or C.I. Art from individual and cultural perspectives of varying ethnic, religious, occupational, regional, and generational groups.	
<b>ARH 5478</b>	<b>AS 3(3,0)</b>
<b>Contemporary Women Artists:</b> PR: 6 credits of art courses or C.I. An in-depth study on contemporary women artists from a feminist perspective.	
<b>ARH 5893</b>	<b>AS 3(3,0)</b>
<b>Critical Perspectives on Women Artists:</b> The cultural forces influencing women artists, and how those artists have been constrained or misrepresented by the language of art or by art history.	
<b>ARH 5933</b>	<b>AS 3(3,0)</b>
<b>Seminar in African &amp; African-American Arts:</b> 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.	
<b>ART 2201C</b>	<b>AS 3(2,3)</b>
<b>Design Fundamentals I:</b> Materials, processes, form. Emphasis on two-dimensional design problems, including problems in black and white and basic color theory.	
<b>ART 2203C</b>	<b>AS 3(2,3)</b>
<b>Design Fundamentals II:</b> Continuation of color theory and basic three-dimensional design using the various sculptural media.	
<b>ART 2300C</b>	<b>AS 3(2,3)</b>
<b>Drawing Fundamentals I:</b> Drawing as a means of formal organization. Introduction to problems in drawing methods and media. Emphasis on description techniques.	
<b>ART 2301C</b>	<b>AS 3(2,3)</b>
<b>Drawing Fundamentals II:</b> Continuation of ART 2300C.	
<b>ART 2600C</b>	<b>AS 3(2,3)</b>
<b>Introduction to Computer Graphics:</b> The principles underlying the generation and display of graphical pictures by computer. Topics include graphical software packages and graphics systems.	
<b>ART 3110C</b>	<b>AS 3(2,3)</b>
<b>Ceramics:</b> Basic concepts of ceramic design, experience in processes of forming, decorating, glazing, and firing pottery.	
<b>ART 3133C</b>	<b>AS 3(3,0)</b>
<b>Fibers &amp; Fabrics:</b> Design and production training in surface design, floor loom weaving and fiber sculpture.	
<b>ART 3204C</b>	<b>AS 3(2,3)</b>
<b>Three-Dimensional Design:</b> PR: ART 2202C or C.I. Intermediate problems in three-dimensional materials, processes, forms.	
<b>ART 3230C</b>	<b>AS 3(2,3)</b>
<b>Design in Advertising:</b> 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.	
<b>ART 3232C</b>	<b>AS 3(3,2)</b>
<b>Graphic Design II:</b> PR: ART 3280C or C.I. Methods, materials, and processes related to perceptual studies in graphic design.	
<b>ART 3239C</b>	<b>AS 3(3,2)</b>
<b>Graphic Design I:</b> PR: ART 2201C, 2202C, or C.I. Current: Use of type, color and illustration on layout elements and mechanical separations.	
<b>ART 3281C</b>	<b>AS 3(3,2)</b>
<b>Type &amp; Design:</b> A survey of type, calligraphy and letter forms and their appropriate use as subject matter for graphic design and publication.	
<b>ART 3330C</b>	<b>AS 3(2,3)</b>
<b>Intermediate Drawing I:</b> PR: Six semester hours of Drawing Fundamentals or C.I. Intermediate problems in drawing, with emphasis on the human form.	
<b>ART 3331C</b>	<b>AS 3(2,3)</b>
<b>Intermediate Drawing II:</b> PR: C.I. Continuation of Intermediate Drawing I.	
<b>ART 3400C</b>	<b>AS 3(2,3)</b>
<b>Printmaking:</b> PR: ART 2201C, 2202C, and three semester hours of Drawing Fundamentals or C.I.	
<b>ART 3510C</b>	<b>AS 3(2,3)</b>
<b>Painting:</b> PR: Three semester hours in Design Fundamentals and three semester hours in Drawing Fundamentals or C.I. Concentration of basic techniques and aesthetic factors in painting.	
<b>ART 3610C</b>	<b>AS 3(2,3)</b>
<b>Computer Graphics:</b> PR: ART 2481C, & ART 3280C; or C.I. Intermediate problems involving the use of computer graphic systems for Advertising Art, Page Layout, Interior Design, and Scientific Illustrations.	



<b>ART 3701C</b>	<b>AS 3(2,3)</b>
<b>Sculpture:</b> PR: Six semester hours in Design Fundamentals, to include three semester hours in three-dimensional work, or C.I.	
<b>ART 4108C</b>	<b>AS 3(2,3)</b>
<b>Advanced Three-Dimensional Design:</b> PR: ART 3100C. May be repeated for credit. Advanced problems in three-dimensional materials, processes, forms.	
<b>ART 4111C</b>	<b>AS 3(2,3)</b>
<b>Advanced Ceramics:</b> PR: ART 3110C. May be repeated for credit.	
<b>ART 4130C</b>	<b>AS 3(2,3)</b>
<b>Fibers, Fabrics, Textiles and Synthetics:</b> Textile design and production, including non-loom weaving processes. May be repeated for credit.	
<b>ART 4138C</b>	<b>AS 3(3,0)</b>
<b>Advanced Fiber &amp; Fabrics:</b> Textile design and production, including non-loom weaving processes. May be repeated for credit.	
<b>ART 4198C</b>	<b>ED 3(2,3)</b>
<b>Metals, Woods, Leathers and Stones:</b> Processes and techniques of production.	
<b>ART 4235C</b>	<b>AS 3(3,2)</b>
<b>Advanced Graphic Design:</b> PR: ART 3280C, ART 3232C, or C.I. Practical studio problems, with emphasis on organization of visual design elements.	
<b>ART 4237C</b>	<b>AS 3(3,2)</b>
<b>Special Problems in Graphic Design:</b> PR: ART 3232C or C.I. Advanced problems in visual design and reproduction. May be repeated for credit.	
<b>ART 4320C</b>	<b>AS 3(2,2)</b>
<b>Advanced Drawing:</b> PR: ART 3331C. May be repeated for credit.	
<b>ART 4402C</b>	<b>AS 3(2,3)</b>
<b>Advanced Printmaking:</b> PR: ART 3400C. May be repeated for credit.	
<b>ART 4483C</b>	<b>AS 3(2,3)</b>
<b>Advanced Computer Graphics:</b> PR: ART 3484C or C.I. Design problems involving the use of advanced computer graphic systems for Advertising Art, Graphic Design and Scientific Illustration.	
<b>ART 4530C</b>	<b>AS 3(2,3)</b>
<b>Advanced Painting:</b> PR: ART 3510C. May be repeated for credit.	
<b>ART 4703C</b>	<b>AS 3(2,3)</b>
<b>Advanced Sculpture:</b> PR: ART 3701C. May be repeated for credit.	
<b>ART 5109C</b>	<b>AS 3(3,0)</b>
<b>Multi-Cultural Crafts Design:</b> The content of this course will include an appreciation for and the production of Western and Non-Western art forms.	
<b>ASH 4404</b>	<b>AS 3(3,0)</b>
<b>China in 19th and 20th Centuries:</b> PR: EUH 2000 and 2001 or C.I. The Mongols in China; coming of the Europeans; social structure; Communist movement; Japanese aggression.	
<b>ASH 4442</b>	<b>AS 3(3,0)</b>
<b>Modern Japan, 19th and 20th Centuries:</b> PR: EUH 2000 and 2001 or C.I. A survey of the Tokugawa Shogunate; Western contact in the 19th century; World War I; Japanese militarism; World War II; and U.S. occupation.	
<b>AVM 4510</b>	<b>US 3(3,0)</b>
<b>Airline Management:</b> PR: HFT 1000. The trends, operation, practices, and procedures of the airline industry. Special emphasis on ticketing, scheduling, marketing, and terminal management.	
<b>BCH 4053</b>	<b>AS 3(3,0)</b>
<b>Biochemistry I:</b> PR: CHM 3211. A consideration of proteins, carbohydrates, nucleic acids, enzymes and their effect on biochemical systems, and inter-relationship of intermediary metabolism.	
<b>BCH 4054</b>	<b>AS 3(3,0)</b>
<b>Biochemistry II:</b> PR: BCH 4053. Continuation of BCH 4053.	
<b>BCH 4103L</b>	<b>AS 2(0,6)</b>
<b>Biochemical Methods:</b> PR: BCH 4053. A laboratory course stressing the application of the chemical arts to the separation, identification, and quantification of materials of biological significance.	
<b>BES 3512</b>	<b>AS 2(2,0)</b>
<b>Behavioral Weight Control:</b> Application of behavioral techniques to produce weight loss. Diet, exercise, and behavioral self-regulation principles are used in an individual student case study approach.	
<b>BOT 1000C</b>	<b>AS 4(3,2)</b>
<b>Plant Science:</b> Plant life related to biological principles and the physical and cultural impact of plants on human individuals and civilization. Designed for non-majors.	
<b>BOT 2010C</b>	<b>AS 4(2,4)</b>
<b>General Botany:</b> PR: High school biology or C.I. Introduction to botany; plant structure and function, with emphasis on forms and applications important to man and science.	
<b>BOT 3154C</b>	<b>AS 3(1,4)</b>
<b>Local Flora:</b> PR: BOT 2010C 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 3(3,0)**  
**Ethnobotany:** PR: C.I. Historical and modern uses of plants economically important in various cultures. Designed for majors and non-majors.
- BOT 3820** **AS 3(2,1)**  
**Plants and the Urban Environment:** PR: C.I. The selection, placement, propagation and care of ornamental plants in residential and industrial areas. Designed for majors and non-majors.
- BOT 4223C** **AS 4(3,3)**  
**Plant Anatomy:** PR: BOT 2010C. A study of development, structure and function of the principal organs and tissue of vascular plants.
- BOT 4303C** **AS 5(3,6)**  
**Plant Kingdom:** PR: BOT 2010C. A survey of the plant kingdom utilizing comparative morphology, structure and functions to demonstrate relationships among extant and extinct forms.
- BOT 4503C** **AS 4(3,2)**  
**Plant Physiology:** PR: PCB 3023 or C.I. A study of mechanisms used by plants to cope with the environment.
- BOT 4623C** **AS 4(3,3)**  
**Plant Geography and Ecology:** PR: 8 hours Botany or C.I. The major climatic plant formations of the world, historical and contemporary plant geography, and ecology.
- BOT 4713C** **AS 5(3,6)**  
**Plant Taxonomy:** PR: BOT 2010C. An introduction to systematic classification and identification of vascular plants, with emphasis on the flora of peninsular Florida.
- BOT 5495C** **AS 3(2,3)**  
**Bryology:** PR: BOT 4303C or C.I. A lecture-laboratory survey course on the diversity and classification of mosses, liverworts, and hornworts, with special emphasis on those found in Florida.
- BOT 5705C** **AS 4(3,2)**  
**Plant Biosystematics:** PR: Graduate standing or C.I. Evolutionary processes among plant taxa and populations utilizing cytology, morphology, biochemistry, breeding systems and co-evolution.
- BSC 1020C** **AS 4(3,2)**  
**Biological Principles:** A study of various biological factors which affect the health and survival of man in modern society. Designed for non-majors.
- BSC 1030C** **AS 4(3,2)**  
**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 2010C** **AS 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. For biological sciences, allied health sciences, and preprofessional majors.
- BSC 2010H** **AS 4(3,3)**  
**General Biology Honors:** PR: Eligibility for Honors Program. Basic principles and unifying concepts of modern biology. Introduction to quantitative experimentation using intensive, open-ended labs.
- BSC 4034** **AS 3(3,0)**  
**Biology and Society:** PR: An introductory course in biology or C.I. Biological concepts applied to current human problems - food production, pollution, diseases, energy, life support systems, natural ecosystems. Suitable for majors or non-majors.
- BSC 4103** **AS 3(3,0)**  
**History of Biology:** PR: C.I. People and events involved in the development of major biological concepts and disciplines. Suitable for majors and non-majors.
- BTE 3402** **ED 2(2,1)**  
**Business Instructional Analysis I:** PR: EDG 4321. Techniques, materials, and instructional media; psychological principles, evaluation, and current trends in typewriting instruction.
- BTE 4410** **ED 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 3111** **BA 3(3,0)**  
**Legal Environment of Business:** PR: Junior standing. Analysis of the law as a dynamic social and political institution in the business environment, including ethical considerations. (Not open to Accounting majors).
- BUL 3112** **BA 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 3121** **BA 3(3,0)**  
**Business Law II:** PR: BUL 3112. 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 3301** **BA 3(3,0)**  
**Property Law:** PR: BUL 3111. An analysis of real and personal property law, bailments, and insurance.
- BUL 5125** **BA 3(3,0)**  
**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.
- CAP 4453** **AS 3(3,0)**  
**Introduction to Robot Vision:** Pin hole camera and eye, perspective and orthographic projections, edges, regions, binary images, recognizing human faces, mobile robots, texture, illusions, robot arm kinematics.
- CAP 4630** **AS 3(3,0)**  
**Introduction to Artificial Intelligence:** PR: COP 3530 and COT 3100. Current methods in AI: knowledge-based systems, representation, inference, planning, natural language. Programming in Lisp or Prolog required.
- CAP 5410** **AS 3(3,0)**  
**Computer Vision:** PR: COP 3530. Image formation, binary vision, region growing and edge detection, shape representation, dynamic scene analysis, texture, stereo and range images, and knowledge representation.
- CAP 5610** **AS 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 5635** **AS 3(3,0)**  
**Artificial Intelligence and Prolog:** PR: CAP 4630. Analysis of deductive databases, applications of logic programming to knowledge representation and "expert systems."
- CAP 5636** **AS 3(3,0)**  
**Advanced Artificial Intelligence:** PR: CAP 4630. AI theory of knowledge representation, "expert systems," memory organization, problem solving, learning, planning, vision, and natural language.
- CAP 5725** **AS 3(3,0)**  
**Computer Graphics Systems I:** PR: COP 3530 or equivalent. Architecture of graphics processors; display hardware; principles of programming and display software; problems and applications of graphic systems.
- CBH 3003** **AS 3(3,0)**  
**Comparative Psychology:** PR: PSY 2013. A study of comparative behaviors of lower animals.
- CCE 4004** **EN 3(3,0)**  
**Construction Engineering I:** PR: EGN 3331 and CEG 4101C. Building construction, materials and types of construction, soils in construction and handbook applications in the field of construction engineering. Also form work design.
- CCE 4014** **EN 3(3,0)**  
**Construction Estimating:** PR: MAC 1104, MAC 1114. Construction estimating techniques used in building construction. Classification of work and quantity survey procedures.
- CCE 4031** **EN 3(3,0)**  
**Construction Scheduling:** Project planning, scheduling and cost management for building construction.
- CCE 4101** **EN 3(3,0)**  
**Construction Materials:** Structural steels, concrete mixes, wood, masonry, concrete reinforcement, steel decks, formwork, insulation, and interior finish materials.
- CCE 5005** **EN 3(3,0)**  
**Construction Engineering II:** PR: CCE 4004 or C.I. Construction planning, equipment, and methods used in heavy construction.
- CCE 5035** **EN 3(3,0)**  
**Construction Law and Project Management:** PR: C.I. Contracts, specifications, and law for engineers. Strategic planning, management, development, design, and production of construction projects. Value engineering, project funding and cash flow.
- CCJ 3010** **HPA 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 3020** **HPA 3(3,0)**  
**Criminal Justice System:** An examination of the components and of their interdependence in light of their traditional autonomy.
- CCJ 3210** **HPA 3(3,0)**  
**Criminal Law in Action:** Basic concepts of criminal law: elements of major crimes, criminal responsibility, defenses, and parties to crime.
- CCJ 3290** **HPA 3(3,0)**  
**Prosecution and Adjudication:** PR: CCJ 3020 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 3300** **HPA 3(3,0)**  
**The Corrections and Penology:** PR: CCJ 3020 or C.I. Theories, structures, and methods of institutional and non-institutional processing and treatment of convicted criminals and juvenile offenders.
- CCJ 3341** **HPA 3(3,0)**  
**Community-Based Corrections:** PR: CCJ 3020 and CCJ 3300 or C.I. An overview and analysis of correction interventions and treatment programs in the community.
- CCJ 3451** **HPA 3(3,0)**  
**Justice System Technology:** PR: CCJ 3020 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 3452** **HPA 3(3,0)**  
**The Criminal Justice Manager:** PR: CCJ 3020 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 3483** **HPA 4(4,0)**  
**Labor Relations in Criminal Justice:** PR: CCJ 3020 and CCJ 3452 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 4459** **HPA 3(3,0)**  
**Justice Agency Operations:** PR: CCJ 3020 and CCJ 3452 or C.I. Elements, functions, and processes essential to the continuing management of various criminal justice agencies, institutions and court systems.
- CCJ 4105** **HPA 3(3,0)**  
**Police and Society:** PR: CCJ 3020. An examination of the varied roles of police in contemporary society. Emphasis is on dynamics of police/ citizen interactions and the police subculture.
- CCJ 4540** **HPA 3(3,0)**  
**Delinquency Control:** PR: CCJ 3020 and CCJ 3290 or C.I. Examination of programs and institutions including juvenile court process, intake services, and remedial procedures and practices.
- CCJ 4630** **HPA 4(4,0)**  
**Comparative Justice Systems:** PR: CCJ 3020 and CCJ 3290 or C.I. A survey of contemporary foreign criminal justice and differences emerging from various political, cultural and legal systems.
- CCJ 4640** **HPA 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 4661** **HPA 3(3,0)**  
**Terrorism:** PR: CCJ 3020 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** **HPA 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 4701** **HPA 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 4941** **HPA 6-9(0,12-36)**  
**Criminal Justice Internship:** PR: C.I. Internship in municipal, county, state or federal criminal justice agency. Includes assignments in police, courts, corrections components.
- CCJ 5406** **HPA 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 5466** **HPA 3(3,0)**  
**Finance and Planning for Public Safety:** Acquisition, control, and management of resources for criminal justice and public safety agencies; organization of finance systems, planning mechanisms and strategies for the budgetary process.
- CCJ 5467** **HPA 3(3,0)**  
**Justice and Safety System Manpower:** Processes essential to administration to human resources in criminal justice and public safety agencies; structure and processes for acquisition, training, and maintenance of personnel.
- CCJ 5485** **HPA 3(3,0)**  
**Issues in Justice Policy:** Examination of selected issues of public policy regarding the functions and roles of criminal justice agencies vis-a-vis other government departments or agencies and public purposes.
- CDA 4131** **AS 3(3,0)**  
**Programming for Large Scale Digital Systems:** PR: Computer Science Major or C.I. and COP 3402C. Programming techniques and instruction sets for large scale digital computers.



- CDA 4150** **AS 3(3,0)**  
**Introduction to Computer Architecture:** PR: Computer Science Major or C.I. and COP 3402C and EEL 3341C. Survey of machine instructions, processor characteristics, and microprogramming concepts.
- CDA 4300** **AS 3(2,2)**  
**Microprocessor Fundamentals:** PR: Computer Science Major or C.I., COP 3402C and EEL 3341C. Semiconductor Technology, 8-bit and 16-bit Microprocessor Architectures and programming, memory system design, I/O methods, interrupts, development system concepts.
- CDA 4311** **AS 3(2,2)**  
**Microprocessor Application:** PR: Computer Science Major or C.I. and CDA 4300. Total system design methodology and applications, advanced topics on microprocessors, patent search and applications.
- CDA 4312** **AS 3(2,2)**  
**Microprocessor Interface:** PR: Computer Science Major or C.I. and CDA 4300. Interfacing of CPU to various devices, CPU support devices, peripheral devices and controllers, BUS concepts and standards, single chip computers.
- CDA 5106** **AS 3(3,0)**  
**Advanced Computer Architecture I:** PR: CDA 4150. Evolution of computer architecture; memory organization; cache; virtual memory; highspeed processor design; pipeline multi-functional and array machines; special architecture case studies; overview of channel architecture.
- CDA 5110** **AS 3(3,0)**  
**Parallel Architecture & Algorithms:** PR: COT 4210, CDA 5106. General-purpose vs. special-purpose parallel computers; arrays, message-passing; shared-memory; Taxonomy; parallelization techniques; communication synchronization and granularity; parallel data structures; automatic program restructuring.
- CDA 5210** **AS 3(3,0)**  
**Architecture and Design of VLSI Systems:** PR: CDA 4150 or equivalent. Overview of VLSI technology. Stick diagrams; logical design of basic subsystems; integrated system design tools; design of a VLSI computer system.
- CDA 5212** **AS 3(3,0)**  
**VLSI Design Tools:** PR: CDA 5210, a strong programming background and C.I. VLSI implementation systems; layout languages; graphic tools; sticks compactor; design rule checking algorithms; simulation models; routing algorithms; silicon compilers; knowledge-based VLSI tools.
- CDA 5213** **AS 3(3,0)**  
**VLSI Testing and System Integration:** PR: CDA 5210. Test vectors; fault models; design for testability; LSSD; languages for testing; performance measurements; interrupts, BUS concepts and standards; testing and systems integration.
- CEG 3301** **EN 3(2,2)**  
**Engineering and Environmental Geology:** PR: 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. Lab sessions are practical applications.
- CEG 4101C** **EN 4(3,2)**  
**Geotechnical Engineering I:** PR: EGN 3331 and EGN 3353. Engineering properties and classification of soils. Design considerations for compaction, seepage, consolidation, and settlement analysis.
- CEG 4812** **EN 1(1,0)**  
**Historical Developments in Civil Engineering:** Seminar covering major historical developments in civil engineering.
- CEG 5015** **EN 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 5805** **EN 2(1,2)**  
**Geotechnical Engineering Design:** PR: CEG 4101C and CEG 5015. Project course on design of foundations and other soil structures using geotechnical design methodologies.
- CES 4102** **EN 3(2,2)**  
**Structural Engineering Analysis:** PR: EGN 3331. Topics in structural mechanics, energy methods, indeterminate structures by flexibility, stiffness method, analysis of columns.
- CES 4130** **EN 1(0,3)**  
**Structures Laboratory:** PR: EGN 3331; CR: CES 4102. Laboratory exercises on the behavior of structures and structural materials.
- CES 4144** **EN 3(3,0)**  
**Matrix Methods of Structural Analysis:** PR: EGN 3331. Structural analysis of beams, frames, and plates by matrix methods.
- CES 4605** **EN 3(2,2)**  
**Structural Steel Design:** PR: CES 4102 or C.I. Design of steel structural members. Selected topics in beam design, column design, plastic design, connections and built-up members.
- CES 4608** **EN 2(1,2)**  
**Steel Design:** PR: CES 4605. Project course on design of steel structures using steel and structural analysis methodologies.

- CES 4702** **EN 3(2,2)**  
**Structural Concrete Design:** PR: CES 4102 or C.I. Principles of designing reinforced concrete members. Selected topics in concrete mixes, beams, columns, and ultimate analysis.
- CES 4709** **EN 2(1,2)**  
**Concrete Design:** PR: CES 4702. Project course on design of concrete structures using concrete and structural analysis methodologies.
- CES 5143** **EN 3(3,0)**  
**Matrix Structural Analysis:** PR: CES 4102 or equivalent. Optimization and matrix methods applied to the design of real structures.
- CET 3123C** **EN 3(2,3)**  
**Microprocessor Electronics I:** CR: EET 3035C. Introduction to microprocessors. Includes machine language programming, an introduction to microprocessor-based system architecture, and binary and hexadecimal arithmetic.
- CET 3144C** **EN 4(3,3)**  
**Applied Microprocessor Technology:** PR: CET 3198C and CET 3303. DC Circuit Analysis and Microprocessor Fundamentals. Analysis and design of the components, architecture, and interfacing of a microcomputer. Specific reference to IBM compatible microcomputers and peripherals. Troubleshooting and repair are emphasized in the laboratory.
- CET 3198C** **EN 4(3,2)**  
**Digital Systems:** PR: DC Circuits and Digital Circuits I. Advanced digital circuits. A review of Karnaugh mapping, truth tables, Boolean Algebra, and flip flops, followed by indepth analysis of more complex MSI and LSI devices used in computers.
- CET 3303** **EN 3(3,0)**  
**Microcomputer Technology I:** PR: CET 3123C and a high-level programming language. Microcomputer assembly programming, including overview of architecture and operating system environment.
- CET 3323C** **EN 3(2,2)**  
**Computer Organization Technology:** PR: EET 3035C. Digital logic gates, memory devices, Karnaugh Maps, combinational logic, arithmetic units, registers and sequential logic.
- CET 3364** **EN 3(3,0)**  
**Systems Applications in C:** PR: CET 3198C, CET 3303, COP 3220, or knowledge of C. Use of C language in control of system processes, DOS and BIOS interrupts, and interfacing with assembly language.
- CET 3383** **EN 3(3,0)**  
**Applied Systems Analysis I:** PR: Programming II (Pascal II). Study of system analysis, design, development and implementation cycle. Includes Object Oriented Programming (OOP) to implement system programs.
- CET 4131C** **EN 4(2,4)**  
**Microprocessor Electronics II:** PR: CET 3123C. A continuation of CET 3123C, with emphasis on applications of microprocessor applications in engineering technologies.
- CET 4188** **EN 4(4,0)**  
**Microcomputer Technology II:** PR: CET 3303. Continuation of CET 3303. Advanced assembly language programming including macros, system subroutines, high-level language interfacing, device drivers, and operating system enhancements.
- CET 4333C** **EN 4(3,2)**  
**Applied Computer Systems I:** PR: CET 3198C and CET 3303. Microprocessor based systems design and implementation. System components; memory, input/output devices, busses, process control architecture, timing and troubleshooting.
- CET 4334C** **EN 4(3,2)**  
**Applied Computer Systems II:** PR: CET 3198C and CET 3303. Computer communications methods with emphasis on serial and parallel data communications and computer networking.
- CET 4345** **EN 2(2,0)**  
**Minicomputer Applications in Technology:** PR: CET 3323C. Utilization of minicomputers in real time industrial and business environments. Analysis of data communications methods.
- CET 4361** **EN 3(3,0)**  
**Applied Computer Graphics in Technology:** PR: COP 2001 and MAC 3253. Fundamentals of computer graphics using high-level structured language and graphics libraries.
- CET 4381** **EN 3(3,0)**  
**Digital Signal Processing:** PR: EET 4329C and COP 1200 or equivalent. Introductory treatments of the concepts of digital signal processing. Survey of current applications, including consideration of available hardware and software.
- CET 4427** **EN 3(3,0)**  
**Applied Database I:** PR: CET 3383. Design and implementation of data base systems within the concept of central administration, structured data storage. Programming project.
- CET 4429** **EN 3(3,0)**  
**Applied Database II:** PR: CET 4427. Continuation of CET 4427—Study of Hierarchical database system. Programming project is required.



- CET 4505** **EN 3(3,0)**  
**Applied Operating Systems I:** PR: COP 2001. 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** **EN 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, mainframes, software, communications, and data base technology into a responsive information system.
- CET 4527** **EN 3(3,0)**  
**Applied Operating Systems II:** PR: CET 4505. Continuation of CET 4505, with emphasis on multitasking. Multi-users environmental programming project is required.
- CET 4915** **EN 2(0,4)**  
**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** **EN 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 3501** **EN 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** **EN 3(3,0)**  
**Civil Engineering Systems:** PR: EGN 3331, EGN 3353, and STA 3032. Application of mathematical techniques associated with operations research to the design and operation of systems that concern civil and environmental engineers.
- CGN 5320** **EN 3(2,2)**  
**Geographic Information systems:** Programming theory and application of Geographic Information Systems to Civil Engineering projects.
- CGN 5504** **EN 3(2,2)**  
**Civil Engineering Materials:** PR: C.I. Structure, properties and applications of materials used in civil engineering including concrete, steel, asphalt, wood, soils, and composite materials.
- CGN 5506** **EN 3(2,2)**  
**Asphalt Concrete Mix Design:** PR: CEG 4101. Properties of asphalt, aggregate and asphalt mixtures, Marshall mix design, Hveem mix design, pavement rehabilitation.
- CGS 1060C** **AS 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 3000C** **AS 3(2,1)**  
**Computer Fundamentals for Business Applications:** Hardware/software for business data processing; survey use of business applications programs utilizing prewritten programs. Not open to Computer Science Majors.
- CGS 3061** **AS 3(3,0)**  
**Personal Computing:** Survey of personal computers on the market; applications for education, entertainment and clerical work; programming in BASIC with exercises. Not open to Computer Science Majors.
- CGS 3100** **AS 3(3,0)**  
**Business Applications Programming:** PR: CGS 3000 or equivalent. Basic programming concepts and techniques, algorithm design, documentation, programming for selected business applications using BASIC. Programming projects. Not open to Computer Science majors.
- CGS 3262** **AS 3(3,0)**  
**Survey of Hardware:** PR: CGS 3100. Survey of microcomputer hardware. Machine instructions, loaders, file structures, file maintenance, operating systems, utility programs, and architecture. Not open to Computer Science majors.
- CGS 3300** **AS 3(3,0)**  
**Survey of Software:** PR: CGS 3262. Introduction to the fundamentals of information systems development and systems requirements. Evaluation and use of current software. System design case studies. Not open to Computer Science majors.
- CGS 3422** **AS 3(3,0)**  
**Programming and Numerical Methods:** CR: MAC 3312. Programming with a high-level language (e.g., FORTRAN). I/O, formatting and manipulation of one and two-dimensional arrays, with emphasis on numerical problems. Not open to Computer Science Majors.

<b>CGS 4140</b>	<b>AS 3(3,0)</b>
<b>Computerized Health Information Systems:</b> PR: CGS 3000 or equivalent. Analyses 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.	
<b>CHI 1120</b>	<b>AS 4(4,1)</b>
<b>Elementary Chinese Language and Civilization I:</b> Designed to initiate the student to the major language skills: listening, speaking, reading and writing.	
<b>CHI 1121</b>	<b>AS 4(4,1)</b>
<b>Elementary Chinese Language and Civilization II:</b> PR: CHI 1120 or equivalent.	
<b>CHM 1020</b>	<b>AS 3(3,0)</b>
<b>Concepts in Chemistry:</b> PR: MAC 1104 or MGF 1203. Concepts will be examined to provide insight into the significant role that chemistry plays in our culture. Intended as a general education course.	
<b>CHM 1032</b>	<b>AS 3(3,0)</b>
<b>General Chemistry:</b> PR: MAC 1104, MGF 1203 or equivalent. An introductory study of the fundamental concepts of chemistry, primarily oriented toward Biology Education COH and PA and Engineering Technology majors.	
<b>CHM 1032L</b>	<b>AS 1(0,3)</b>
<b>General Chemistry Laboratory:</b> CR: CHM 1032. An introductory study of physical and chemical properties of elements and compounds.	
<b>CHM 2045</b>	<b>AS 4(3,1)</b>
<b>Chemistry Fundamentals I:</b> PR: High school chemistry or CHM 1032. Basic physical theory of chemical reactivity, atomic structure, chemical bonding, periodicity, stoichiometry, equilibria, thermodynamics, and kinetics.	
<b>CHM 2045H</b>	<b>AS 4(3,3)</b>
<b>Honors Chemistry Fundamentals I:</b> PR: Admission to University, Honors Program and high school chemistry. Same as CHM 2045 with honors-level content.	
<b>CHM 2046</b>	<b>AS 3(3,0)</b>
<b>Chemistry Fundamentals II:</b> PR: CHM 2045. Continuation of CHM 2045.	
<b>CHM 2046L</b>	<b>AS 1(0,3)</b>
<b>Chemistry Fundamentals Laboratory:</b> PR: CHM 1032 or CR: CHM 2046. Illustration of chemical principles and introduction to the techniques of inorganic and physical chemistry.	
<b>CHM 2046H</b>	<b>AS 4(3,3)</b>
<b>Honors Chemistry Fundamentals II:</b> PR: 2045H. Same as CHM 2046 with honors-level content.	
<b>CHM 2205</b>	<b>AS 5(5,0)</b>
<b>Introduction to Organic and Biochemistry:</b> 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.	
<b>CHM 3120C</b>	<b>AS 5(3,6)</b>
<b>Analytical Chemistry:</b> PR: CHM 2046, 2046L. Laboratory practices of classical and instrumental analysis. Choice of preferred analytical methods and techniques is emphasized through applications involving both inorganic and organic systems.	
<b>CHM 3210</b>	<b>AS 3(3,0)</b>
<b>Organic Chemistry I:</b> PR: CHM 2046. Theory and applications of organic chemistry: structure, bonding, kinetics, thermodynamics, reaction mechanisms, synthesis, and stereochemistry. Structure elucidation via spectrometric techniques.	
<b>CHM 3211</b>	<b>AS 3(3,0)</b>
<b>Organic Chemistry II:</b> PR: CHM 3210. Continuation of CHM 3210.	
<b>CHM 3211L</b>	<b>AS 2(0,6)</b>
<b>Organic Laboratory Techniques I:</b> PR: CHM 3210. An introduction to the laboratory techniques of organic chemistry, including the preparation, reaction, and analysis of organic compounds.	
<b>CHM 3212L</b>	<b>AS 2(0,6)</b>
<b>Organic Laboratory Techniques II:</b> PR: CHM 3211 and 3211L. Open-end laboratory to develop synthesis techniques and structure elucidation skills.	
<b>CHM 3410</b>	<b>AS 4(3,1)</b>
<b>Physical Chemistry I:</b> PR: CHM 2046, PHY 3049, and MAC 3312. Rigorous treatment of atomic and molecular structure, thermodynamics, kinetics, and chemical bonding.	
<b>CHM 3411</b>	<b>AS 3(3,0)</b>
<b>Physical Chemistry II:</b> PR: CHM 3410. Continuation of CHM 3410.	
<b>CHM 3411L</b>	<b>AS 2(0,6)</b>
<b>Physical Chemistry Laboratory:</b> 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.	
<b>CHM 4130C</b>	<b>AS 4(2,6)</b>
<b>Advanced Analytical Laboratory Technique:</b> PR: CHM 3211, 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.	



<b>CHM 4220</b>	<b>AS 3(3,0)</b>
<b>Advanced Organic Chemistry I:</b> PR: CHM 3211. Theoretical and physical organic concepts of organic systems from the perspective of modern structural theory, thermodynamics and kinetics.	
<b>CHM 4221</b>	<b>AS 3(3,0)</b>
<b>Advanced Organic Chemistry II:</b> PR: CHM 3211 and CR: CHM 3410. A survey of organic reaction mechanisms and their application to synthetic chemistry.	
<b>CHM 4610</b>	<b>AS 3(3,0)</b>
<b>Inorganic Chemistry:</b> CR: CHM 3411. A discussion of descriptive inorganic chemistry based on various bonding theories, thermodynamics, and kinetics.	
<b>CHM 4610L</b>	<b>AS 2(0,6)</b>
<b>Inorganic Chemistry Laboratory:</b> PR: CHM 4610. A study of physical and chemical properties and synthetic techniques in Inorganic Chemistry.	
<b>CHM 5235</b>	<b>AS 3(3,0)</b>
<b>Applied Molecular Spectroscopy:</b> PR: CHM 3120C and CHM 3211. Determination of chemical structure through interpretation of UV, IR, NMR and Mass Spectra.	
<b>CHM 5305</b>	<b>3(3,0)</b>
<b>Applied Biological Chemistry</b> PR: CHM 3211. 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.	
<b>CHM 5450</b>	<b>AS 3(3,0)</b>
<b>Polymer Chemistry:</b> PR: CHM 3211. An introduction to the chemistry of synthetic polymers. Synthetic methods, polymerization mechanisms, characterization techniques, and polymer properties will be considered.	
<b>CHM 5580</b>	<b>AS 3(3,0)</b>
<b>Advanced Physical Chemistry:</b> CR: 3411 and PR: MAC 3313. Selected topics of thermodynamics, kinetics, quantum mechanics, and structure.	
<b>CHM 5711</b>	<b>AS 2(2,0)</b>
<b>The Chemistry of Materials:</b> PR: CHM 3211, 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.	
<b>CHS 1440</b>	<b>AS 4(3,1)</b>
<b>Fundamentals of Chemistry for Engineers:</b> 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.	
<b>CHS 3501</b>	<b>AS 3(3,0)</b>
<b>Introduction to Forensic Science:</b> Intended for majors and non-majors to provide an overview of the specialty areas in Criminalistics (crime lab).	
<b>CHS 3505</b>	<b>AS 3(1,6)</b>
<b>Forensic Microscopy:</b> PR: CHM 2046 or C.I. The study of the polarized light microscope and its use in the identification and comparison of trace evidence.	
<b>CHS 3511</b>	<b>AS 3(1,6)</b>
<b>Trace Evidence:</b> PR: CHS 3505. An advanced study of the techniques used to identify and compare trace evidence.	
<b>CHS 3531</b>	<b>AS 3(1,6)</b>
<b>Forensic Analysis of Controlled Substances:</b> PR: CHM 3120C. The study of the presumptive tests, isolation, and instrumental techniques used in identification of controlled substances.	
<b>CHS 4110C</b>	<b>AS 3(2,3)</b>
<b>Nuclear and Radiochemistry:</b> PR: CHM 3120C and CR: CHM 3411. A lecture-laboratory course examining theories of fundamental particles, the chemical effects of nuclear transformations and the special uses of isotopes.	
<b>CHS 4200</b>	<b>AS 3(3,0)</b>
<b>Concepts in Industrial Chemistry:</b> PR: CHM 3410. An introduction to industrial practices, emphasizing the application of chemical principles in the development of a commercial process or product.	
<b>CHS 4591</b>	<b>AS 6(0,40)</b>
<b>Forensic Science Internship:</b> PR: C.I. Credit for full-time work (15 weeks; 600 hours) for a professional forensic laboratory. This course may be repeated for credit.	
<b>CHS 5241</b>	<b>AS 2(2,0)</b>
<b>Chemical Dynamics II:</b> PR: CHS 5240. Continuation of CHS 5240.	
<b>CHS 5250</b>	<b>AS 2(2,0)</b>
<b>Chemical Synthesis I:</b> PR: CHM 3211, and 3411; or equivalent. Survey of chemical synthesis from the standpoint of planning a synthesis, intermediates, special techniques, protection of functional groups, experimental design and optimization of reaction conditions.	
<b>CIS 4321</b>	<b>AS 3(3,0)</b>
<b>Data Processing Systems Analysis and Design:</b> PR: Computer Science Major or C.I. and COP 3530. Data organization; physical storage; database system architecture. Students participate in the design of a data processing system.	

- CIS 4322** **AS 3(3,0)**  
**Data Processing Systems Implementation:** PR: Computer Science Major or C.I. and CIS 4321. System implementation project. Students experience the task of implementing a large computing system.
- CIS 5101** **AS 3(3,0)**  
**Computational Techniques in Management Information Systems:** PR: COP 4710. Computers in management information systems; analysis, design approaches, processing methods and data management; use of state-of-the-art software in design and development.
- CIS 5610** **AS 3(3,0)**  
**Software Engineering:** PR: COP 4020 and knowledge of Ada. Introduction to the design and implementation of software systems. Emphasis is placed on object-oriented methodologies using Ada with application to real-time systems design. A project is required.
- CJT 3820** **HPA 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 3821** **HPA 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 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.
- CLA 3850** **AS 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.
- CLA 3851** **3(3,0)**  
**Comparative Mythology:** Common themes found in the myths of various cultures; theories of their origins, meaning and value in human experience.
- CLP 3003** **AS 3(3,0)**  
**Psychology of Adjustment:** PR: PSY 2013. Psychological principles of adjustment; application of psychology to problems in living. Designed for non-majors.
- CLP 3143** **AS 3(3,0)**  
**Abnormal Psychology:** PR: PSY 2013. Classification, causation, and treatment of deviant patterns of behavior.
- CLP 3302** **AS 3(3,0)**  
**Clinical Psychology:** PR: PPE 3003 or CLP 3143. An overview of approaches to psychopathology, methods of clinical assessment, and various approaches to individual and group counseling.
- CLP 3413** **AS 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 4402C** **AS 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 3(3,0)**  
**Psychology of Adult Adjustment:** A survey of situations encountered during adulthood, including marriage, birth, parenthood, trauma, illness, death, etc. Effective adjustment.
- CLP 5166** **AS 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.
- CMC 4240** **AS 3(1,2)**  
**Corporate/Institutional Video:** PR: RTV 3200, RTV 3260 (RTV 3260 may be taken concurrently). Preparation of non-broadcast corporate/institutional video programs including planning, budgeting, production, and evaluation.
- COM 3011** **AS 3(1,2)**  
**Communication and Human Relations:** Introduction to semantics; symbols and meaning and the relationship with human behavior.
- COM 3110** **AS 3(3,0)**  
**Business and Professional Communication:** PR: SPC 1600 or C.I. Theoretical and practical training in effective presentational speaking for business and professions.
- COM 3120** **AS 3(3,0)**  
**Organizational Communication:** A study of communication functions and problems within the contexts of hierarchies.
- COM 3311** **AS 3(3,0)**  
**Communication as a Behavioral Science:** Basic principles of the behavioral science approach to the study of contemporary communication.



<b>COM 4463</b>	<b>AS 3(2,1)</b>
<b>Communication and Court Room Advocacy:</b> A study of the application of communication theory and practice to the judicial setting.	
<b>COP 2500</b>	<b>AS 3(3,0)</b>
<b>Computer Science I:</b> PR: Knowledge of Modula-2, college algebra and college trigonometry. Techniques of algorithm development; structured programming concepts; algorithms for searching and sorting procedures; computer experience with a procedure-oriented language.	
<b>COP 2501</b>	<b>AS 3(3,0)</b>
<b>Computer Science II:</b> PR: COP 2500. Continuation of COP 2500; recursion; simple data structures; program verification; continued experience with a procedure-oriented language.	
<b>COP 3120</b>	<b>AS 3(3,0)</b>
<b>Programming in COBOL:</b> PR: CGS 3100 or C.I. COBOL programming fundamentals, concepts of sequential, indexed, and random files. Programming projects. Not open to Computer Science majors.	
<b>COP 3200</b>	<b>AS 3(3,0)</b>
<b>Computer Programming:</b> 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.	
<b>COP 3210</b>	<b>AS 1(1,0)</b>
<b>Pascal Programming Language:</b> Lecture and programming experience in Pascal.	
<b>COP 3220</b>	<b>AS 1(1,0)</b>
<b>C Programming Language:</b> PR: Knowledge of a procedural high-level programming language. Lecture and programming experience in C.	
<b>COP 3230</b>	<b>AS 1(1,0)</b>
<b>ADA Programming Language:</b> PR: Knowledge of a procedural high-level programming language. Lecture and programming experience in ADA.	
<b>COP 3341</b>	<b>AS 1(1,0)</b>
<b>UNIX:</b> PR: Knowledge of the C programming language. Lecture and programming experience in UNIX.	
<b>COP 3400</b>	<b>AS 3(3,0)</b>
<b>Assembly Language:</b> PR: COP 2501 or equivalent programming experience. Computer structure, number systems, data representation, arithmetic and logic instructions, addressing schemes, looping techniques, sequential input/output, subroutines, macros, and other topics.	
<b>COP 3402C</b>	<b>AS 3(2,1)</b>
<b>Computer Systems Concepts/Programming:</b> PR: COP 3400C, Data Structures and Knowledge of C. Linker, loader, assembler design and development. Detailed examinations of one computer's operating system and its associated architecture. Advanced topics in assembly language, including file input/output.	
<b>COP 3530</b>	<b>AS 3(3,0)</b>
<b>Computer Science III:</b> PR: COP 2501 and COT 3100. Design and analysis of implementation techniques of abstract data types, such as stacks, queues, linear lists, arrays, trees, and heaps.	
<b>COP 4020</b>	<b>AS 3(3,0)</b>
<b>Programming Languages I:</b> PR: COP 3530. 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.	
<b>COP 4124</b>	<b>AS 3(3,0)</b>
<b>COBOL Environment:</b> PR: Computer Science core. Basic and advanced features; creation of user libraries; system utilities; file processing; sub-program linkage; programming efficiencies; compiler study; assembly interfaces, and JCL.	
<b>COP 4600</b>	<b>AS 3(3,0)</b>
<b>Programming Systems:</b> PR: COP 3402 and COP 3530. The function and organization of operating systems. Design and implementation considerations regarding operating systems, compilers, assemblers and loaders.	
<b>COP 4710</b>	<b>AS 3(3,0)</b>
<b>Databases:</b> PR: COP 3530. Basic concepts of databases, I/O processing, file organization and access, study of selected database systems, database project.	
<b>COP 5021</b>	<b>AS 3(3,0)</b>
<b>Programming Languages II:</b> PR: COP 4020 and COT 4210. Introduction to compiler construction, parsing, parser generators, attributed grammars and the implementation of block structures and recursion. Students write a high-level language translator.	
<b>COP 5570</b>	<b>AS 3(3,0)</b>
<b>Software Tools:</b> 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.	
<b>COP 5611</b>	<b>AS 3(3,0)</b>
<b>Operating System Design Principles:</b> PR: COP 4600. Structure and functions of operating systems, process communications techniques, high-level concurrent programming, virtual memory systems, elementary queueing theory, security, distributed systems, case studies.	



- COP 5711** **AS 3(3,0)**  
**Principles of Data Base Systems:** PR: COP 4710. Physical data organizations, popular data base systems, data models, reorganization, security, recovery, concurrency, distributed data bases, data base machines.
- COT 3100** **AS 3(3,1)**  
**Introduction to Discrete Structure:** PR: MAC 3311 and knowledge of a programming language. Logic, sets, functions, relations, combinatorics, graphs, Boolean algebras, finite-state machines, Turing machines, unsolvability, computational complexity.
- COT 4210** **AS 3(3,0)**  
**Discrete Computational Structures:** PR: COT 3100, MAC 3312. Review of discrete structures, introduction to automation theory, computational complexity, analysis of algorithms, computability theory, and formal languages.
- COT 4400** **AS 3(3,0)**  
**Tools for Algorithm Analysis:** PR: COP 3530 and COT 3100. Tools from discrete and continuous mathematics for analyzing complexity of algorithms. Order notation use and manipulation.
- COT 4500** **AS 3(3,0)**  
**Numerical Calculus:** PR: COP 2501 or CGS 3422 and MAC 3312. Numerical methods for finding roots of nonlinear equations, solutions of systems of linear equations, and ordinary differential equations.
- COT 5310** **AS 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 5400** **AS 3(3,0)**  
**Design and Analysis of Algorithms:** PR: COT 4210 and COT 4400. Classifications of algorithms, e.g., recursive, divide-and-conquer, greedy, etc. Data Structures and algorithm design and performance. Time and space complexity analysis.
- COT 5501** **AS 3(3,0)**  
**Computational Methods/Applications:** PR: COT 4500. Computational solution techniques for algebraic equation, ODE and PDE Models of applications selected from science, engineering, applied mathematics, and computer science.
- COT 5510** **AS 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.
- CPO 3034** **AS 3(3,0)**  
**Politics of Developing Areas:** Comparative analysis of theories, problems and politics of development in Third World nations.
- CPO 3103** **AS 3(3,0)**  
**Comparative Politics:** Government and politics in selected nations, with emphasis upon comparative analysis of contemporary problems, politics, political culture, behavior, and institutions.
- CPO 3132** **AS 3(3,0)**  
**Introduction to Canadian Studies:** A multi-disciplinary approach to the study of Canada, its people, culture, government, and economy.
- CPO 4062** **AS 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 4123** **AS 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 4133** **AS 3(3,0)**  
**Government & Politics of Canada:** Examines the origins and development of Canadian government. Focuses on the functioning of federalism, nationality politics, foreign policy, and relations with the United States.
- CPO 4303** **AS 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 3(3,0)**  
**Government and Politics of the Soviet Union:** Study of the origins, institutions, and functioning of the Soviet system, including the role of the Communist party and its influence on domestic and foreign policy formation and implementation.
- CRT 4931** **EN 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 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 2000** **AS 3(3,0)**  
**Introduction to Creative Writing:** PR: ENC 1102. An exploratory course in the several types of creative writing; group analysis of original writing; critical reading of established authors.



<b>CRW 3100</b>	<b>AS 3(3,0)</b>
<b>Fiction Writing:</b> PR: ENC 2000. English majors in creative writing specialize in fiction writing; advanced group analysis and criticism of work produced by individual students.	
<b>CRW 3120</b>	<b>AS 3(3,0)</b>
<b>Creative Writing Workshop I:</b> PR: C.I. Practice in established forms: essay, short story, and poetry.	
<b>CRW 3121</b>	<b>AS 3(3,0)</b>
<b>Creative Writing Workshop II:</b> PR: CRW 3010 or C.I. Individualized practice in writing in one of the established forms; analytic study of the work of pertinent authors.	
<b>CRW 3300</b>	<b>AS 3(3,0)</b>
<b>Poetry Writing:</b> PR: ENC 1102. Practice in writing poetry; group analysis and criticism of work produced by individual students.	
<b>CRW 3310</b>	<b>AS 3(3,0)</b>
<b>Structure of Verse:</b> PR: ENC 1102. Intensive study of the structural characteristics of English, poetry, metrical systems, rhyme, scansion, and poetic rhetorical devices.	
<b>CRW 3410</b>	<b>AS 3(3,0)</b>
<b>Writing Scripts:</b> PR: ENC 1102 and Grammar Proficiency Exam. Theory and practice of writing scripts for film and TV.	
<b>CRW 4114</b>	<b>AS 3(3,0)</b>
<b>History of Prose Style:</b> PR: ENC 1102. A review of English prose style from 1611 to 1960.	
<b>CRW 4122</b>	<b>AS 3(3,0)</b>
<b>Advanced Fiction Writing Workshop:</b> PR: CRW 3100. Intensive writing practice in fiction. Peer critique and group discussion of original manuscripts.	
<b>CRW 4123</b>	<b>AS 3(3,0)</b>
<b>Science Fiction Writing:</b> Study of science fiction literature and writing of original science fiction stories. Workshop format with critique of writing assignments.	
<b>CRW 4320</b>	<b>AS 3(3,0)</b>
<b>Advanced Poetry Writing Workshop:</b> PR: CRW 3300. Intensive writing practice in poetry. Peer critique and group discussion of original manuscripts.	
<b>CRW 4420</b>	<b>AS 3(3,0)</b>
<b>Advanced Scriptwriting Workshop:</b> PR: CRW 3410. Intensive writing practice in writing scripts. Peer critique and group discussion of original manuscripts.	
<b>CRW 5932</b>	<b>AS 3(2,1)</b>
<b>Teaching Creative Writing:</b> PR: Senior standing or C.I. Creative writing practicum.	
<b>CWR 4101C</b>	<b>EN 3(2,2)</b>
<b>Hydrology:</b> PR: STA 3032; EGN 3353. Hydrological cycle, probabilistic forecasting, rainfall excess, meteorology, groundwater, storm-water runoff, flood routing and design applications.	
<b>CWR 4201C</b>	<b>EN 3(2,2)</b>
<b>Hydraulics:</b> PR: EGN 3353. Transmission systems, peak flows, water distribution, wastewater and storm water collection, pipe flow, open channels and pumps with design applications.	
<b>CWR 5205C</b>	<b>EN 3(2,3)</b>
<b>Hydraulic Engineering:</b> PR: EGN 3353. Environmental and civil engineering hydraulics application. Pipe and open channel flow, fittings, flow measurements, etc.	
<b>CWR 5545</b>	<b>EN 3(3,0)</b>
<b>Water Resources Engineering:</b> PR: CWR 4101C, CWR 4201C. Systems identification and solution to complex water allocation problems, and other hydraulic engineering designs and operations using economic analysis and operations research techniques.	
<b>DAA 2200</b>	<b>AS 3(2,2)</b>
<b>Theatre Dance I:</b> Fundamentals of Classical Ballet; includes practical class work as well as Dance History lectures.	
<b>DAA 3000</b>	<b>AS 3(2,2)</b>
<b>Theatre Dance:</b> PR: DAA 2200 & 3201 or C.I. Specialized study of Theatre Dance styles of the 1920s to the 1980s. Demonstration and performance of students highlighting segments of Broadway shows. May be repeated for credit.	
<b>DAA 3100</b>	<b>AS 3(2,2)</b>
<b>Theatre Modern Dance:</b> PR: DAA 2200 & 3201 or C.I. Exploration of form, style, and technique in creative movement. Includes practical class work and history lectures.	
<b>DAA 3201</b>	<b>AS 3(2,2)</b>
<b>Intermediate Classical Ballet:</b> PR: DAA 2200 or C.I. In-depth study of classical ballet technique, including principles, theory, and practice technique.	
<b>DAA 3500</b>	<b>AS 3(2,2)</b>
<b>Intermediate Jazz Dance:</b> PR: DAA 2200 or C.I. Introduction of the basic movements of American Jazz Dance, including practical class work as well as Jazz Dance history.	
<b>DAA 3600</b>	<b>AS 3(2,2)</b>
<b>Theatre Tap Dance:</b> Exploration of form, style, and technique in the basic fundamental movements of tap dance. May be repeated for credit.	
<b>DAA 4501</b>	<b>AS 3(2,2)</b>
<b>Advanced Jazz Dance:</b> PR: DAA 2200 & DAA 3500 or C.I. In-depth study of Jazz Dance as a major style of dance, using theory and practice in jazz technique.	



- DAA 4710** **Theatre Dance Choreography and Performance:** PR: By audition. Students will create and present a piece choreographed and performed by other dancers in concert. May be repeated for credit. **AS 3(2,2)**
- DAE 3300** **Dance Techniques:** Analysis of creative dance and movement techniques as they relate to the teaching of physical education. **ED 3(2,1)**
- DAE 3370** **Dance and Rhythmics:** The development of skill proficiency and instructional strategies in rhythmics and dance techniques, and fundamental movement patterns for grades K-12. **ED 3(1,2)**
- DEP 3004** **Developmental Psychology:** PR: PSY 2013. The effects of genetic, psychological, maturational and social factors on behavior throughout the life cycle. **AS 3(3,0)**
- DEP 3202** **Psychology of Exceptional Children:** Psychological problems of exceptional children, including diagnosis, associated emotional problems, effects of institutionalization, special class placement, attitudes, and appropriate intervention methods. **AS 3(3,0)**
- DEP 3212** **Psychological Approaches to Mental Retardation:** The problems of mentally retarded citizens, including diagnosis, environment versus heredity, legal restrictions, institutionalization, as well as methods of behavioral remediation. **AS 3(3,0)**
- DEP 3464** **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 function. **AS 3(3,0)**
- DEP 5057** **Developmental Psychology:** PR: Graduate admission or C.I. Psychological aspects of development including intellectual, social, and personality factors. **AS 3(2,2)**
- EAB 3703** **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. **AS 4(3,2)**
- EAB 3704** **Behavioral Self Control:** PR: PSY 2013. Application of behavioral and biofeedback techniques to self-regulation. **AS 3(3,0)**
- EAB 5765** **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. **AS 3(3,0)**
- EAS 3010** **Fundamentals of Flight:** PR: EGN 3343. Principles of fluid mechanics applied to aerodynamics, performance, and stability of aircraft. Introduction to astronautics and flight propulsion systems. **EN 4(4,0)**
- EAS 3101** **Aerodynamics I:** PR: EAS 3010. Theory of incompressible flow over airfoils and finite wings including potential flow concepts and classical methods. Applications of theory to the aerodynamic design of flight vehicles. **EN 3(3,0)**
- EAS 3530** **Space Systems:** PR: PHY 3101. Engineering aspects of current space flights, mission goals, the space environment, vehicle characteristics, performance, and flight paths. Mission support: communications, computers, launch equipment. **EN 3(3,0)**
- EAS 3800** **Junior Aerospace Laboratory I:** PR: PHY 3049L. Corequisite: EAS 3010. Theory, calibration and use of instruments. Measurement techniques, analysis of data, report writing. Subsonic flow, material properties. **EN 2(1,3)**
- EAS 3810** **Junior Aerospace Laboratory II:** PR: EAS 3800. Theory, calibration, and use of instruments. Measurement techniques, analysis of data, report writing. Supersonic flow, vibrations. **EN 2(1,3)**
- EAS 4105** **Flight Mechanics:** PR: EML 3101, EML 4312. Design and analysis of performance, static stability, dynamic stability, and control of aircraft and space vehicles. **EN 3(3,0)**
- EAS 4134** **High-Speed Aerodynamics:** PR: EAS 3101. 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. **EN 3(3,0)**
- EAS 4200** **Flight Structures:** PR: EGN 3420, EGN 3331. Load analysis and fundamental design of structural components of aircraft and space vehicles. Classical and modern computer techniques using fatigue analysis and finite element methods. **EN 3(3,0)**



- EAS 4210** **EN 3(2,2)**  
**Space Structural Dynamics:** PR: EAS 4200, EML 4312 or C.I. 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** **EN 3(3,0)**  
**Aerothermodynamics of Propulsion Systems:** PR: EAS 4134. Fundamental analysis and design considerations of propulsion systems. Turbojets, ramjets and rockets.
- EAS 4505** **EN 3(3,0)**  
**Orbital Mechanics** PR: EGN 3321, MAP 3302. The solar system; coordinates and time-keeping; observational data; the two-body and many-body problems; perturbations.
- EAS 4700** **EN 4(2,5)**  
**Aerospace Design I:** PR: EAS 3810. 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 4710** **EN 4(2,5)**  
**Aerospace Design II:** PR: EAS 4700. Continuation of the design process in the team building and testing of a prototype/model of an airplane, spacecraft, system or device.
- EAS 5302** **EN 3(3,0)**  
**Direct Energy Conversion:** PR: EML 3101 and PHY 3101. Direct methods of energy conversion; particular emphasis on fuel cells, thermoelectrics, thermionics, solar energy, photovoltaics, and magneto-hydrodynamics. Analysis and systems design.
- ECM 3000L** **EN 1(0,3)**  
**Introduction to Computer Engineering:** PR: EGN 3420. Introduction to the field of computer engineering, including the use of "C" programming for engineering applications.
- ECM 4507C** **EN 3(2,2)**  
**Computer-Aided Engineering Design:** PR: ECM 4804 and EEL 3342 or C.I. Review of currently available CAE tools for digital hardware and software design applications.
- ECM 4230** **EN 3(3,0)**  
**Engineering Data Structures:** PR: ECM 3000L. Design of data structures and algorithms, with emphasis on performance analysis, memory organization, stacks, queues, linked lists, trees, graphs, searches, and sorts. Introduction to object-oriented structures.
- ECM 4301** **EN 3(3,0)**  
**Engineering Applications of Computer Methods:** PR: MAP 3302, STA 3032, ECM 4804. Engineering applications of numerical methods, including solution of differential equations, simulation, optimization, and multidimensional root-finding, integration and series approximations.
- ECM 4451** **EN 3(3,0)**  
**Engineering Applications of Intelligent Systems:** PR: ECM 4230. Intelligent models, computer vision, natural language understanding, pattern analysis, knowledge-based systems, symbolic programming, and advanced architectures.
- ECM 4504C** **EN 4(3,3)**  
**Embedded Computer Systems:** PR: ECM 4509C, ECM 4230, ECM 4723C. Computer Applications in Systems role, sensor and actuator interfacing. Design projects, including problem statements and specifications, design methodology, implementation, testing, and documentation.
- ECM 4507C** **EN 3(2,3)**  
**Computer Network Design and Implementation:** PR: ECM 4509 and STA 3032. Introduction to the design and performance analysis of computer communications networks, emphasizing the OSI model and other multi-access procedures. Polling networks, random access networks and ring networks.
- ECM 4508C** **EN 3(2,3)**  
**Computer System Design I:** PR: EEL 3342. Basic computer architecture and organization. Introduction to design of computer systems at gate, register, and processor level. Assembly language programming in support of micro design.
- ECM 4509C** **EN 4(3,3)**  
**Computer System Design II:** PR: ECM 4508C, ECM 4804. Continuation of ECM 4508C. The study of instructions, interrupts and DMA for I/O subsystem development in the design of microcomputer systems. Role of high-level languages.
- ECM 4708C** **EN 4(3,3)**  
**Linear Controls and Simulation:** CR: ECM 4301. A first course in the analysis and design of linear control systems. Introduction to continuous simulation languages. Emphasis on simulation as a design tool.
- ECM 4723C** **EN 4(3,3)**  
**Computer Control Systems:** PR: ECM 4708C. Discrete-time systems, the z-transform, and single loop computer control systems. Digital simulation in the analysis and design of processes with embedded computers.
- ECM 4803C** **EN 3(3,0)**  
**Engineering Systems Software:** PR: ECM 4230 and EEL 3342. Introduction to operating systems concepts and facilities for engineering applications, including multiprogramming, resource allocation and management, systems utilities, and operating system implementation.



- ECM 4804** **EN 3(3,0)**  
**Engineering Software Design:** PR: COT 3100, ECM 4230. Software systems development life cycle, function and object-oriented methodologies, CASE; Analysis, design, and development of a large software project.
- ECM 4910** **EN 3(2,2)**  
**Senior Project in Computer Engineering:** PR: Senior Standing and C.I. Front-end analysis, design, implementation, and documentation of a representative industrial system design project.
- ECM 5135** **EN 3(3,0)**  
**Engineering Math Analysis I:** PR: MAP 3302. Topics in advanced engineering mathematics, including systems of differential equations, phase plane, linear algebra, and vector differential calculus.
- ECM 5365** **EN 3(3,0)**  
**Introduction to Digital Systems:** PR: EEL 3342C or equivalent. Analysis and synthesis of combinational, synchronous and asynchronous sequential logic circuits. Introduction to controller design using a digital design language.
- ECM 5431** **EN 3(3,0)**  
**Expert Systems and Knowledge Engineering:** PR: ECM 4451 or C.I. Introduction to expert systems in engineering. Expert systems tools and interviewing techniques. This course is hands-on and project-oriented.
- ECM 5441** **EN 3(3,0)**  
**Image Processing:** PR: MAP 3302, EGN 3420. Two-dimensional signal processing techniques; pictorial image representation; spatial filtering; image enhancement and encoding; segmentation and feature extraction; introduction to image understanding techniques.
- ECM 5453** **EN 3(3,0)**  
**Pattern Recognition:** PR: MAP 3302, 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.
- ECM 5505C** **EN 3(2,3)**  
**Microcomputer-based Monitoring and Control Systems:** PR: EEL 3342; ECM 4508 or C.I. Machine-language programming; software development aids; systems design; interfacing considerations.
- ECM 5506C** **EN 3(2,3)**  
**Engineering Applications of Computer Graphics:** PR: EGN 3420 or C.I. Computer graphics in engineering applications. Laboratory assignments.
- ECM 5806** **EN 3(3,0)**  
**Software Engineering I:** PR: EGN 3420, ECM 4230 or C.I. Design, implementation, and testing of computer software for Engineering applications.
- ECO 2013** **BA 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 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 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 3(3,0)**  
**Intermediate Price Theory:** PR: ECO 2023 and ECO 2013. Theoretical study of the behavior of households, firms, and the markets in which they operate with issues and applications.
- ECO 3203** **BA 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 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 3(3,0)**  
**Mathematical Economics I.** PR: ECO 2013 and 2023 and calculus. The study of economic processes expressed as equations and economic systems as mathematical models.
- ECO 3411** **BA 3(3,0)**  
**Quantitative Methods and Business Decision Analysis:** PR: Junior standing, ACG 2071, ECO 2013, 2023, and STA 3023. The use of statistical methods as scientific tools in the analysis of economics and business problems.
- ECO 3622** **BA 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.



<b>ECO 3703</b>	<b>BA 3(3,0)</b>
<b>International Economics:</b> PR: ECO 2023 and ECO 2013. Fundamental principles of international trade and foreign exchange, including the balance of payments and problems of foreign economic policy.	
<b>ECO 4303</b>	<b>BA 3(3,0)</b>
<b>History of Economic Thought:</b> PR: ECO 2023 and ECO 2013. A study of the principal ideas of the major contributors to the development of economic thought.	
<b>ECO 4412</b>	<b>BA 3(3,0)</b>
<b>Economic Statistics and Econometrics:</b> PR: ECO 3411. Concepts and methods of developing, analyzing, and interpreting measures of economic activity, and business and economic change.	
<b>ECO 4504</b>	<b>BA 3(3,0)</b>
<b>Economics of the Public Sector:</b> PR: ECO 2023. A study of fiscal institutions and decision-making, and how government budgetary policy (spending, taxing, borrowing, and debt management) affects the economy and its citizens.	
<b>ECO 5005</b>	<b>BA 3(3,0)</b>
<b>Economic Concepts:</b> PR: Acceptance into the graduate program. Introduction to micro and macro economic analysis.	
<b>ECO 5415</b>	<b>BA 3(3,0)</b>
<b>Statistics for Business and Economics:</b> PR: Acceptance into the graduate program and MAC 3233. Statistical theory and problems relating to business and economics, including time series and correlation theory, index number theory and statistical inference.	
<b>ECP 3004</b>	<b>BA 3(3,0)</b>
<b>Seminar on Current Economic Topics.</b> PR: ECO 2013 and 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.	
<b>ECP 3203</b>	<b>BA 3(3,0)</b>
<b>Contemporary Labor Economics:</b> PR: ECO 2023 and ECO 2013. The analysis of labor problems and issues in a dynamic contemporary economy through the interaction of the four major institutions: households, firms, government, and unions.	
<b>ECP 3433</b>	<b>BA 3(3,0)</b>
<b>Transportation Economics:</b> PR: ECO 2023 and ECO 2013. 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.	
<b>ECP 4403</b>	<b>BA 3(3,0)</b>
<b>Business, Government, and Industrial Organizations:</b> PR: ECO 2023 and ECO 2013. 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.	
<b>ECP 4603</b>	<b>BA 3(3,0)</b>
<b>Urban and Regional Economic Problems:</b> PR: ECO 2023 and ECO 2013. Analysis of the location, organization and problems of urban and regional economic activities.	
<b>ECP 4703</b>	<b>BA 3(3,0)</b>
<b>Managerial Economics:</b> PR: Junior standing. ACG 2071 or ACG 2023, ECO 2023, ECO 2013 and ECO 3411. The uses of economic analysis in economic decision-making and business policy formulation.	
<b>ECS 4003</b>	<b>BA 3(3,0)</b>
<b>Comparative Economic Systems:</b> PR: ECO 2023 and ECO 2013. 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.	
<b>ECS 4013</b>	<b>BA 3(3,0)</b>
<b>Economic Development:</b> PR: ECO 2023 and ECO 2013. The study of problems, theories, and issues of economic development with reference to the third world.	
<b>EDE 3942</b>	<b>ED 3-6(0,16)</b>
<b>Junior Student Teaching-Elementary:</b> PR: EDG 4321, RED 3012, MAE 3810 and 3811 or MAE 3112. Student teaching assignment in an elementary school under the supervision of a certified classroom teacher.	
<b>EDE 3943</b>	<b>ED 3-6(0,16)</b>
<b>Junior Student Teaching-All K-12 Majors:</b> PR: Except. Ed. Majors; EDG 4321; RED 3012; MAE 3112. Student teaching under the supervision of a certified teacher. Half in elementary, half in secondary.	
<b>EDE 4943</b>	<b>ED 7-12(0,35)</b>
<b>Senior Student Teaching-Elementary:</b> PR: EDE 3942 or EDE 3943. Student teaching in an elementary school under the supervision of a certified classroom teacher. Scheduled concurrent seminars.	
<b>EDE 5541</b>	<b>ED 3(3,0)</b>
<b>Individualized Instruction in the Elementary School:</b> PR: Regular Certificate or C.I. Study of basic philosophy, organizational patterns, techniques, materials, and activities related to individualizing instruction in the elementary school classroom.	
<b>EDF 2240</b>	<b>ED 3(3,0)</b>
<b>Introduction to Applications of Technology in Education.</b> Classroom applications of instructional media including computers.	



- EDF 3337** **ED 3(3,0)**  
**Individual Adjustment In Education:** PR: Education major, Junior standing. Individual assessment and exploration of careers in education. Includes field study.
- EDF 3603** **ED 3(3,0)**  
**Analysis of Educational Foundations:** PR: Junior standing or C.I. Analysis of and participation in general and specific dimensions of teaching with socio-economic, historical and philosophical factors emphasized.
- EDF 4214** **ED 3(3,0)**  
**Classroom Learning Principles:** PR: 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 3(3,0)**  
**Applications of Technology in Education:** Classroom applications of instructional media, including computers. Includes experiences with equipment, commercial and teacher-made media, and their uses.
- EDF 4604** **ED 3(3,0)**  
**Overview of Education:** A brief analysis of the American educational system, focusing on social, political, economic, and intellectual development through an internal atmosphere of interaction and discussion.
- EDF 5245** **ED 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.
- EDG 4321** **ED 4(4,0)**  
**Teaching Strategies:** Analysis of the learning environment; emphasis on planning for instruction, skill development, and measurement and evaluation.
- EDG 4324** **ED 3(3,0)**  
**Teaching in the Schools:** PR: Teaching Strategies or C.I. Selected dimensions of teaching; teaching skills; reading and writing in content areas; problem solving.
- EDG 4941** **ED 1-8(0,1-8)**  
**Directed Field Experience:** PR: Approval of Professional Laboratory. Field experience in an appropriate educational setting under the direction of a supervising teacher and/or university supervisor.
- EDG 5745** **ED 3(3,0)**  
**Teaching the Non-English Student:** PR: FLE 3063 or C.I. Bilingual and non-linguistic instruction in curriculum areas in English as a second language.
- EDM 5235** **ED 3(3,0)**  
**Teaching in the Middle School:** Methods of middle school teaching; team planning and teaching; development and learning patterns of the emerging adolescent; use of alternative teaching strategies.
- EDG 5325** **ED 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 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 5941** **ED 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 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.
- EDS 5357** **ED 3(3,0)**  
**Supervision of Clinical Experiences:** PR: C.I. Study of the Beginning Teacher and S T E P Programs with emphasis on the Role and Responsibilities of the Peer Teacher or Building Level Administrator.
- EEC 5205** **ED 3(3,0)**  
**Programs and Trends in Early Childhood 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 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, sciences, mathematics, health and physical education, problems relating to reading readiness and cognition (K-3). Concurrent laboratory experiences.
- EEC 5208** **ED 4(4,0)**  
**Creative Activities in Early Childhood:** PR: Regular Certificate or C.I. Organization 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** **3(3,0)**  
**Behavioral Issues of the Emotionally Handicapped:** Introduction to functional schema for the field of behavioral disorders. Considerations of theoretical as well as practical/clinical issues.
- EED 4011** **ED 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 4212** **ED 4(4,0)**  
**Curriculum and Program Adaptations, E.H.:** PR: Senior standing. Development of highly specialized techniques and materials to be used with exceptional students.
- EEL 3122C** **EN 4(3,3)**  
**Electrical Networks:** PR: EGN 3373, PHY 3049L. Analysis and design of linear circuits, transients, network function. Laplace transform.
- EEL 3140C** **EN 4(3,3)**  
**Analog Filter Design:** PR: EEL 3307C, EEL 3122. Analog filter design, both passive and active, from low pass prototypes using frequency transformations and based on low sensitivity.
- EEL 3306** **EN 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** **EN 4(3,3)**  
**Electronics I:** PR: EEL 3306, EEL 3122C. Electronic devices. Analog electronic circuits. Amplifier analysis and design. Frequency effects.
- EEL 3341C** **EN 3(2,3)**  
**Introduction to Digital Circuits:** PR: COP 2000 and PHY 3049. Logic gates, memory devices, combinational and sequential subsystems. Karnaugh Maps. Intended primarily for computer science majors.
- EEL 3342C** **EN 4(3,3)**  
**Introduction to Digital Circuits and Systems:** PR: PHY 3049 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** **EN 3(3,0)**  
**Electromagnetic Fields:** PR: EGN 3375C and MAP 3302. Introduction to electric and magnet fields and electromagnetic waves.
- EEL 3552C** **EN 4(3,3)**  
**Signal Analysis & Communications:** PR: EEL 3122. Signal theory. Fourier series and integral. Design of modulation systems.
- EEL 3657** **EN 3(3,0)**  
**Linear Control Systems.** PR: EEL 3122C. Control theory. Transfer function modeling. Nyquist criteria, root locus, Bode plots. Design of lead and lag compensation.
- EEL 4012C** **EN 4(2,4)**  
**Senior Electrical Design:** PR: EEL 4309C, ECM 4508C, and required EEL 3XXX courses. Applications of the design process in the solution of realistic and meaningful problems. Feasibility, design, and testing of team projects.
- EEL 4216** **EN 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 4314** **EN 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 4309C** **EN 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 4343C** **EN 3(2,3)**  
**Sequential Circuits and Systems:** PR: EEL 3342C and EGN 3375C. Analysis of device and circuit models. Design, simulation, and realization of synchronous sequential systems.
- EEL 4436C** **EN 4(3,3)**  
**Microwaves:** PR: EEL 3470. Microwave devices and systems and measurement techniques.
- EEL 4440** **EN 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** **EN 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.
- EEL 4571C** **EN 4(3,3)**  
**Data Acquisition and Control:** PR: EEL 3122, EEL 3307C, EEL 3342C. Fundamentals of signal acquisition and conditioning, filtering, signal conversion, microcomputer input and output interface circuits, channels, transducers, feedback.



- EEL 4612** **EN 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 4701C** **EN 4(3,3)**  
**Digital Systems Organization:** PR: EEL 3342C. The study of basic machine organization, operation, and subsystem integration. System investigation and design using a register transfer and control-sequence design language.
- EEL 4702C** **EN 4(3,3)**  
**Digital Systems Design:** PR: EEL 4701C or C.I. Continuation of EEL 4701C. Microprocessor and LSI-based approaches to the design of digital systems. Current topics in the design of control communications and display systems.
- EEL 4750** **EN 3(3,0)**  
**Digital Signal Processing Fundamentals:** PR: EEL 3122C. Study of discrete-time signals and systems, Z-transform, DFT introduction to digital filter design.
- EEL 5173** **EN 3(3,0)**  
**Signal and System Analysis:** PR: EEL 3122C or EEL 4657. Continuous and discrete dynamic models; emphasis on state variable models. Laplace, Z-transform and time domain solutions of dynamic model behavior. Real-time digital simulation. Sampling theory.
- EEL 5255** **EN 3(3,0)**  
**Power Systems Analysis and Electric Machinery:** PR: EEL 4216 or C.I. System modeling, machinery, protection, load flow, stability.
- EEL 5353** **EN 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** **EN 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 5370** **EN 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 5434** **EN 3(3,0)**  
**Microwave Circuits and Devices:** PR: EEL 4436 or EEL 5555. Planar transmission lines; passive microwave circuits; active circuit design using Gunn, IMPATT, FETS, RTDS, etc.; microwave integrated circuits.
- EEL 5441** **EN 3(3,0)**  
**Introduction to Wave Optics:** PR: EEL 4440 or PHY 4424 or C.I. Electromagnetic foundation of light waves as applied to reflection, refraction, diffraction, interference, polarization, coherence, and guided waves.
- EEL 5446** **EN 3(3,0)**  
**Optical Systems Design:** PR: C.I. Design principles of lens and mirror optical systems' evaluation of designs using computer techniques.
- EEL 5450C** **EN 3(2,1)**  
**Thin Film Optics:** PR: PHY 4424 or EEL 4440 and EEL 5441 or EEL 5451. Principles of thin film optics and its applications in optical, electro-optical, and laser systems.
- EEL 5451L** **EN 3(1,4)**  
**Electro-Optics Laboratory:** PR: EEL 3470 or C.I. Study of laboratory techniques for optical measurements and performance of measurements on electro-optic devices to determine operational characteristics.
- EEL 5462C** **EN 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** **EN 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** **EN 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** **EN 3(3,0)**  
**Random Processes I:** PR: EEL 3552C and STA 3032. Elements of probability theory, random variables, and stochastic processes.



- EEL 5555C** **EN 3(2,1)**  
**RF Communications:** PR: EEL 3552C. RF communication systems, 10 MHz to 1500 MHz. Scattering parameter noise, receiver design, system implementation, spread spectrum. RF network and spectrum analyzers, PC board layout.
- EEL 5563** **EN 3(3,0)**  
**Fiber Optics Communication:** PR: EEL 3552C, EEL 3470. Use of Fiber Optics as a communication channel. Principles of Fiber optics. Mode theory, transmitters, modulators, sensors detectors and demodulators.
- EEL 5630** **EN 3(3,0)**  
**Digital Control Systems:** PR: EEL 4567 and EEL 3342C. Real-time digital control system analysis and design. Z-transforms, sampling and reconstruction, time and frequency response, stability analysis, digital controller design.
- EES 3104C** **EN 3(2,3)**  
**Environmental Engineering Biology:** PR: EGN 3704. Principles of biology applicable to the engineering design and analysis of wastewater treatment, lake management, energy systems, and water treatment.
- EES 4111C** **EN 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** **EN 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 4401C** **EN 3(2,2)**  
**Environmental Health:** PR: EGN 3704. Topics and design examples in industrial hygiene, occupational and radiological health hazards, and pollution effects, such as those due to air noise, solid wastes, etc.
- EES 5415C** **EN 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.
- EET 3035C** **EN 4(3,2)**  
**Electricity and Electronics:** PR: MAC 1104 and MAC 1114. AC and DC circuits. Basic theorems and circuit analysis techniques. Instruments and measurements. Introduction to integrated circuits.
- EET 3143C** **EN 4(3,2)**  
**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 3716** **EN 3(3,0)**  
**Network Analysis:** PR: Calculus I and 6 hrs. of DC-AC circuits. Circuit analysis using Laplace transforms and partial fraction expansions. Theorems, Fourier series, frequency response and Bode plots.
- EET 4158C** **EN 3(2,2)**  
**Linear Integrated Circuits:** PR: EET 3716, 4 hrs. Electronic Devices. Applications of operational amplifiers, comparators, phase-locked loops, timers, regulators, other integrated circuits. Includes amplifiers, oscillators, integrators, and active filters.
- EET 4329C** **EN 3(2,2)**  
**Electronic Communications I:** PR: EET 3716 and 4 hrs. Electronics Devices Principles and interrelationships of communication system components and circuits. Signals, noise, modulation, demodulation, bandwidth requirements. Transmitters and receivers.
- EET 4339C** **EN 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** **EN 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 4389C** **EN 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 4508** **EN 3(3,0)**  
**Power Utilization:** PR: EET 3716. Analysis of the economic aspects of distribution and use of power in industry. Analysis of motors and generators.
- EET 4548** **EN 3(3,0)**  
**Power Transmission:** PR: EET 3716. Analysis of electrical power transmission systems. Per unit quantities, circuit constants, symmetrical components. Power flow and fault calculations.



- EET 4732** **EN 3(3,0)**  
**Feedback Control Systems:** PR: EET 3716. Analysis of networks and control systems. Stability and compensation considerations, using root locus, Nichols chart and Bode plots. Simulation techniques, system components.
- EEX 2010** **ED 3(3,0)**  
**Introduction to Special Education:** Orientation to the education of exceptional children in the schools. The course includes characteristics, trends, mainstreaming, and other issues.
- EEX 3102** **ED 3(3,0)**  
**Language Development and Common Disorders:** PR: Junior standing. Interdisciplinary approach to language development, identification and remediation of common disorders.
- EEX 3241** **ED 4(4,0)**  
**Methods for Academic Skills for Exceptional Students:** Teaching strategies, plus types of teacher-made materials that apply to all categories, ages, and levels of the exceptional population. Must be taken with or before Junior block.
- EEX 3243** **ED 3(3,1)**  
**Techniques for the Exceptional Adolescent-Adult:** CR: EEX 3241. A study of strategies, skills and alternative procedures when teaching adolescents and adults.
- EEX 3263** **ED 4(4,0)**  
**Arts and Sciences for Exceptional Students:** PR: Junior standing. Adapting curriculum, materials, and teaching strategies in the area of language arts, science, social studies, music, and art for the exceptional student.
- EEX 4221** **ED 3(3,0)**  
**Assessment of Exceptional Students:** PR: Senior Status. Diagnosis of learning problems of exceptional students; assessing performance and determining appropriate placement and programming.
- EEX 4601** **ED 3(3,0)**  
**Behavioral Management:** Study of management techniques based on behavioral management (applied behavioral analysis) principles for modifying the effective behavior of exceptional students.
- EEX 4920** **2(2,0)**  
**Senior Seminar in Special Education:** PR: Senior Standing. A seminar for exceptional education majors. Seminar must be taken concurrently with senior student teaching.
- EEX 5051** **ED 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.
- EGC 5005** **ED 3(3,0)**  
**Introduction to Guidance and Human Services:** PR: Completion of Phase II of Educ. Prof. Prep. or Certificate or C.I. A basic course presenting an overview of the philosophy, organization, administration and operation of guidance and human services.
- EGC 5036** **ED 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 1006** **EN 1(1,0)**  
**Introduction to the Engineering Profession:** Overview of academic and professional requirements in various engineering disciplines.
- EGN 3210** **EN 3(3,0)**  
**Engineering Analysis and Computation:** PR: MAC 3311. Engineering analysis and computation with structured constructs. Subscripted variables, subprograms, input/output. Batch processing and timesharing. Engineering applications will be emphasized.
- EGN 3310** **EN 3(3,0)**  
**Engineering Analysis-Statics:** PR: PHY 3048; CR: MAC 3312. Fundamental concepts of mechanics, including resultants of force systems, free-body diagrams, equilibrium of rigid bodies, and analyses of structures.
- EGN 3321** **EN 3(3,0)**  
**Engineering Analysis-Dynamics:** PR: EGN 3310; CR: MAC 3313. Kinematics and kinetics of particles and rigid bodies; mass and acceleration, work and energy impulse and momentum.
- EGN 3331** **EN 3(3,0)**  
**Mechanics of Materials:** PR: EGN 3310; CR: MAP 3302. 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** **EN 3(3,0)**  
**Thermodynamics:** PR: EGN 3321 and MAP 3302. Work, heat, and energy transformations. Relation of properties. Laws, concepts, and modes of analysis common to all applications of thermodynamics in engineering.



<b>EGN 3353</b>	<b>EN 3(3,0)</b>
<b>Fluid Mechanics:</b> PR: MAP 3302; CR: EGN 3343. Basic principles of continuum fluid mechanics.	
<b>EGN 3358</b>	<b>EN 3(3,0)</b>
<b>Thermo-Fluids-Heat Transfer:</b> PR: EGN 3321, MAP 3302. Introduction to first and second laws of thermodynamics, continuum fluid mechanics, and heat transfer for electrical, industrial, and computer engineering majors.	
<b>EGN 3365C</b>	<b>EN 3(2,2)</b>
<b>Structure and Properties of Materials:</b> PR: CHS 1440 and MAC 3312. Electrons and bonding, crystalline and non-crystalline solids, phase diagrams, phase transformations, plastic deformation, electrical and magnetic properties of materials.	
<b>EGN 3373</b>	<b>EN 4(4,0)</b>
<b>Principles of Electrical Engineering:</b> PR: PHY 3049; CR: MAP 3302. Fundamental laws of electrical circuits and circuit analysis; fundamentals of electronics and power systems.	
<b>EGN 3375C</b>	<b>EN 3(2,3)</b>
<b>Electrical Devices and Systems:</b> PR: EGN 3373. Continuation of EGN 3373. Electronic circuits, devices, and systems.	
<b>EGN 3420</b>	<b>EN 3(3,0)</b>
<b>Engineering Analysis:</b> PR: High-level language or equivalent (FORTRAN preferred); MAC 3312. Engineering analysis and computation using FORTRAN; engineering applications of numerical methods including curve fitting, matrix operations, root finding, integration and plotting.	
<b>EGN 3613</b>	<b>EN 2(2,0)</b>
<b>Engineering Economic Analysis:</b> PR: ECO 2013 and Sophomore standing. Economic evaluation of engineering alternatives and design. Time value of money and economic impact of taxes, risk, depreciation.	
<b>EGN 3704</b>	<b>EN 2(2,0)</b>
<b>Engineering and the Environment:</b> PR: CHS 1440 and MAC 3312. Process engineering for air, energy, water, and land environment and the role of engineering in control of these environments.	
<b>EGN 4032</b>	<b>EN 2(2,0)</b>
<b>Professionalism, Practice and Ethics:</b> PR: Junior or Senior standing. Study of the professional engineer's role, practice, and responsibility to act in the interests of public health, safety, and welfare.	
<b>EGN 4033</b>	<b>EN 3(3,0)</b>
<b>Technology and Social Change:</b> 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.	
<b>EGN 4624</b>	<b>EN 3(3,0)</b>
<b>Engineering Administration:</b> PR: EGN 3613 and Senior standing. Engineering organization and administration; delegation of authority and responsibility; effective use of resources; project management; R and D planning; ethics in professional practice.	
<b>EGN 4634</b>	<b>EN 2(2,0)</b>
<b>Operations Research:</b> PR: STA 3032. Mathematical methods of operations research; linear programming, techniques of optimization.	
<b>EGN 4703</b>	<b>EN 3(3,0)</b>
<b>Systems Analysis and Control:</b> PR: EGN 3343, 3353, 3373; MAP 3302. Analysis and design of process control systems, including first and second order systems and classical linear control theory.	
<b>EGN 4813</b>	<b>EN 3(3,0)</b>
<b>Science in History:</b> Examination of the reciprocal relations of science and society from ancient to recent times.	
<b>EGN 4814</b>	<b>EN 3(3,0)</b>
<b>Technology in History:</b> PR: History/Humanities sequence or C.I. Important developments in engineering and technology and their effect on society and our socio-economic processes.	
<b>EGN 4816</b>	<b>EN 1(1,0)</b>
<b>Turning Points in Engineering:</b> Seminar covering major historical developments in engineering.	
<b>EGN 4818</b>	<b>EN 3(3,0)</b>
<b>Technology in North America:</b> PR: History/Humanities sequence or C.I. Periods of significant technological change in North America, with emphasis on 19th and early 20th-century developments.	
<b>EGN 4823</b>	<b>EN 3(3,0)</b>
<b>Topics in Urban Development:</b> Production, distribution, and consumption of various commodities. Engineering relationships to distribution, internal structure, function of urban developments, interrelationships of engineering, social, economic, and cultural phenomena.	
<b>EGN 4824</b>	<b>EN 3(3,0)</b>
<b>Energy and Society:</b> Investigation of available energy forms; energy resources versus requirements in an increasingly complex technological society; possible solutions and future predictions.	
<b>EGN 4825</b>	<b>EN 3(3,0)</b>
<b>Environment and Society:</b> 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** **Telecommunications:** Telecommunications and its role in contemporary local, national, and international society. **EN 3(3,0)**
- EGN 4832** **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. **EN 3(3,0)**
- EGN 4843** **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. **EN 3(3,0)**
- EGN 4844** **Man and Machine:** The influence and interrelationship of invention and technical progress on the evolution of social forms and institutions. **EN 3(3,0)**
- EGN 5034** **Engineering and Public Works:** PR: C.I. The purposes, function, and role of engineering within public works. **EN 3(3,0)**
- EGN 5035** **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. **EN 3(3,0)**
- EGN 5036** **Engineering Codes and Standards:** PR: C.I. Development, history, and function of engineering codes and standards and their use in protecting public health and safety. **EN 2(2,0)**
- EGS 1111C** **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. **EN 2(1,3)**
- EIN 3314C** **Work Measurement & Design:** PR: EGN 3613, STA 3032. Management standards for evaluation and control of man and man/machine systems. Flow and operations analysis, work measurement, job evaluations. Laboratory assignments. **EN 3(2,2)**
- EIN 4116C** **Information Systems Analysis and Design:** PR: ESI 4312. Systems analysis methodology, information systems models, system requirement, specifications, systems design methodology and decision support. Cost benefit analysis and implementation planning. **EN 3(2,3)**
- EIN 4118C** **Industrial Engineering Applications of Computers:** PR: FORTRAN. Survey of microcomputer methods in industrial engineering practice. Topics include: spreadsheets, databases, expert systems, and project management. Lab exercises. **EN 3(2,3)**
- EIN 4214** **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. **EN 3(3,0)**
- EIN 4243C** **Human Engineering:** PR: EIN 3315C; Senior standing. Man/machine systems; design and conduct of human engineering studies. **EN 3(2,2)**
- EIN 4305C** **Industrial Engineering Applications in The Service Industries.** PR: EIN 3314C, ESI 4312, ESI 4254. Application of industrial engineering principles to improve the quality and productivity of service industries such as restaurants, banks, hotels, health care, etc. **EN 3(2,2)**
- EIN 4333C** **Industrial Control Systems:** PR: ESI 4312. Decision rules in industrial environment, including forecasting, scheduling, ordering, quality, and inventory control. **EN 3(2,3)**
- EIN 4364C** **Industrial Facilities Planning and Design:** PR: EIN 4391C, EIN 4333C. Comprehensive design of industrial production systems, including interrelationships of plant location, process design, and materials handling. Laboratory assignments. **EN 3(2,2)**
- EIN 4391C** **Manufacturing Engineering:** PR: EIN 3314C, EGN 3363. Introduction to manufacturing engineering, with emphasis on current and emerging technologies in metalworking and electronics. **EN 3(2,2)**
- EIN 4411C** **Computer-Aided-Manufacturing:** PR: EIN 4391C. Computer-Aided-Manufacturing (CAM) including computer numerical control (CNC), robotics, parts classification (GT) and manufacturing resource planning (MRP). **EN 3(2,2)**
- EIN 4891C** **Industrial Engineering Senior Design Project:** PR: Senior standing. Capstone design course; application of IEMS techniques to real-world design applications. **EN 3(2,3)**



- EIN 5117** **EN 3(3,0)**  
**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 5248C** **EN 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 5255** **EN 3(3,0)**  
**Training Simulator Engineering:** Introduction to significant topics relative to the development and use of simulators for knowledge transfer in the technical environment.
- EIN 5381** **EN 3(3,0)**  
**Engineering Logistics:** Study of the logistics life cycle involving planning, analysis and design, testing, production, distribution, and support.
- EIN 5388** **EN 3(3,0)**  
**Forecasting:** PR: STA 5156, ESI 5170 Industrial applications of forecasting methods with emphasis on microcomputer-based packages.
- EIN 5383** **EN 3(3,0)**  
**Network Analysis and Integer Programming:** PR: EGN 4634. Development, application, and computerized analysis of networks for systems and control. Applications of CPM, PERT, GERT, and maximal flow concepts.
- EIN 5415** **EN 3(3,0)**  
**Tool Engineering and Manufacturing Analysis:** PR: EIN 4391 or C.I. Tool materials and design, tolerance technology, theory of metal cutting, and machineability.
- EIN 5602C** **EN 3(2,2)**  
**Expert Systems in Industrial Engineering:** Overview of basic concepts, architecture and construction of expert systems, in IE. Intelligent simulation training systems, case studies and problems. Laboratory exercises.
- ELD 4011** **ED 4(4,0)**  
**Introduction to Specific Learning Disabilities:** PR: Senior standing. Development and practice of appropriate cognitive, affective, and motor strategies for selected categories, levels and degrees of severity of exceptional population.
- ELD 4242** **ED 4(4,0)**  
**Program Planning for Specific Learning Disabilities:** PR: Senior standing. Development of highly specialized techniques and materials to be used with exceptional students.
- EMA 3000** **EN 3(3,0)**  
**Engineering Polymeric, Ceramic, and Composite Materials:** PR: EGN 3363 or C.I. Structure, properties, processing of engineering polymeric, ceramic, and composite materials.
- EMA 3012L** **EN 2(1,2)**  
**Experimental Techniques in Materials Engineering:** PR: EGN 3363C and C.I. Metallurgical specimen preparation, metallography, heat treatment x-ray diffraction, electron microscopy, mechanical testing, wear and corrosion testing.
- EMA 4413** **EN 3(3,0)**  
**Electronic Properties of Materials:** PR: EGN 3363C. Electronic processes in solids. Electrical, magnetic, and optical properties of solids. Electron energies in solids. Superconducting materials.
- EMA 5106** **EN 3(3,0)**  
**Metallurgical Thermodynamics:** PR: EGN 3343, EGN 3365C. First and second law treatment, solid state kinetics, and phase diagram representation of metallic and alloy systems.
- EMA 5108** **EN 3(3,0)**  
**Surface Science:** PR: PHY 3049 and C.I. Methods of chemical and physical analysis of surfaces, with emphasis on ultra-high vacuum spectroscopies utilizing electron, ion and photon probes.
- EMA 5126** **EN 3(3,0)**  
**Physical Metallurgy:** PR: EML 3236. Study of strengthening mechanisms and phase transformations in metals and alloys.
- EMA 5140** **EN 3(3,0)**  
**Introduction to Ceramic Materials:** PR: EGN 3363. Uses, structure, physical and chemical properties, and processing of ceramic materials. Discussions will include recent developments for high technology applications.

- EMA 5163** **EN 3(3,0)**  
**Polymer Science & Engineering:** PR: EGN 3363. Molecular structure, physical and chemical properties, preparation and processing of macromolecular materials. Discussions will include recent developments for high technology applications.
- EMA 5304** **EN 3(2,2)**  
**Scanning Electron Microscopy, Principles and Practice:** PR: PHY 3049 and C.I. The principles of operation of Electron Microscopes, specimen preparation, special techniques with emphasis on scanning microscopy and microprobe analysis.
- EMA 5326** **EN 3(3,0)**  
**Corrosion and Electrochemical Engineering:** PR: EGN 3363C. Electrochemical principles and applications to detecting and monitoring corrosion processes. Various forms of corrosion, their causes and control. Application in electric vehicles and electrochemical machining.
- EMA 5626** **EN 3(3,0)**  
**Mechanical Metallurgy:** PR: EML 3234. Study of the microscopic mechanical behavior of metals and alloys, with emphasis on fracture, fatigue, and creep.
- EME 5051** **ED 3(3,0)**  
**Technologies of Instruction & Information Management:** 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.
- EME 5054** **ED 3(3,0)**  
**Instructional 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.
- EMA 5056** **ED 3(3,0)**  
**Communication for Instructional Systems—Process:** Principles of written and oral communications for instructional technologists; development of assertiveness and interpersonal skills; conducting training programs for employees; creating hard copy materials.
- EME 5057** **ED 3(3,0)**  
**Communication for Instructional Systems—Application:** PR: EME 5056. Applications of technology, communications theory, platform skills, and instructional design to the effective presentation of training programs and instruction.
- EME 5208** **ED 3(3,0)**  
**Production Techniques for Instructional Settings:** Skills in producing instructional materials. Emphasis on graphic, audio, video, and photographic skills and the application of instructional and communication theories.
- EME 5225** **ED 3(3,0)**  
**Media for Children and Young Adults:** Survey of materials for children's and young adults' informational and recreational needs; analysis, evaluation, and utilization of print and non-print materials.
- EME 5408** **ED 3(3,0)**  
**Computer Applications in Instructional Technology.** Techniques and skills for the use of computers for productivity and instruction by the instructional technologist.
- EML 3001** **EN 3(3,0)**  
**Machine Shop Practice:** PR: EGS 1111 or C.I. Set up and operation of mill and lathe, cutting tools, holding devices, cutting speeds and feed rates. Measurement devices. Hands-on experience.
- EML 3101** **EN 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 3234** **EN 3(3,0)**  
**Mechanical Properties of Materials:** PR: EGN 3365C. Microscopic treatment of the mechanical behavior of engineering materials, strengthening mechanisms, fracture, fatigue, and creep.
- EML 3236** **EN 3(3,0)**  
**Structure and Properties of Alloys:** PR: EGN 3365C. Relation of properties to microstructure and applications of major ferrous and non-ferrous alloys.
- EML 3262** **EN 3(2,2)**  
**Kinematics of Mechanisms:** PR: EGN 3321. Graphical, mathematical, and computer-aided kinematics, analysis, and synthesis of basic mechanisms.



- EML 3303** **EN 1(0,3)**  
**Measurement Systems:** PR: EGN 3331, 3373. Application of system design concepts to measurement. Fundamental theory of static and dynamic measurements. Transducer principles and validation of experimental data.
- EML 3500** **EN 3(3,0)**  
**Machine Design and Analysis:** PR: EGN 3331. Application of the principles of mechanics of materials to the design of mechanical elements.
- EML 4142** **EN 3(3,0)**  
**Heat Transfer:** PR: EGN 3353. Conduction, radiation, and convection heat transfer. Basic energy balances emphasized. Steady state and transient problems, analysis and design of simple heat exchangers.
- EML 4220** **EN 3(3,0)**  
**Vibration Analysis:** PR: EGN 3321, 3331. Undamped and damped vibration of single degree freedom systems. Forced vibration. Transient response. Multiple degree of freedom systems. Normal modes.
- EML 4260** **EN 3(3,0)**  
**Dynamics of Machinery:** PR: EML 3262, EML 4222. Critical speeds and response of flexible rotor systems, whirl, gyroscopic effects; balancing of rotating and reciprocating masses; cam dynamics.
- EML 4304C** **EN 3(2,2)**  
**Measurements Laboratory:** PR: EGN 3373, EGN 3353, EGN 3331. Fundamental theory and practice of static and basic electrical dynamic measurements, transducer principles and data acquisition. Laboratory experiments conducted to reinforce thermal, fluid, and mechanical concepts.
- EML 4312** **EN 3(3,0)**  
**Feedback Control Design:** PR: MAP 3302, EGN 3373. Mathematical modeling of control system components; pneumatic, hydraulic, electromechanical control systems; transient and frequency response; stability and root locus; controller design.
- EML 4411** **EN 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** **EN 3(2,3)**  
**Engineering Design I:** CR: EML 4304C. 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** **EN 3(2,3)**  
**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 4535** **EN 3(2,3)**  
**Computer Aided Design:** PR: EML 3101, 3500, and CGS 3422 or equivalent. Introduction to computational methods in mechanical and thermal systems design.
- EML 4545C** **EN 3(2,3)**  
**Experimental Design:** PR: EML 4142 and EML 4220. Fundamentals of static and dynamic measurements, transducer principles, and validation of experimental data. Design of experimental projects in mechanical and thermal systems.
- EML 4600** **EN 3(3,0)**  
**HVAC Systems Engineering:** Heating, ventilation, air-conditioning, and refrigeration principles and systems design. Psychrometrics, heating and cooling loads, equipment and components, and distribution systems.
- EML 4703C** **EN 3(2,2)**  
**Fluid Mechanics II:** PR: EGN 3353, continuation of EGN 3353. Application of fundamentals to boundary layers, compressible flow, potential flow theory, submerged bodies, and measurements.
- EML 5152** **EN 3(3,0)**  
**Intermediate Heat Transfer:** PR: EML 4142, EML 5713, EML 5533 or C.I. 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 5224** **EN 3(3,0)**  
**Acoustics:** PR: MAP 3302. 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 5228** **EN 3(2,3)**  
**Modal Analysis:** PR: EML 4220, EML 4304, EML 5533. Theoretical basis. Measurement techniques, excitation, transducers, data acquisition. Detailed data analysis, modal parameter extraction, curve-fitting procedures. Modelling.
- EML 5237** **ED 3(3,0)**  
**Intermediate Mechanics of Materials:** PR: EGN 3331 EML 3500, CR: EML 5533 or C.I. Elements of elasticity. Failure theories. Bending and torsion. Thin plates. Energy principles. Thick-walled cylinders. Applications to design.
- EML 5245** **EN 3(3,0)**  
**Tribology:** PR: EGN 3331, EGN 3353, EGN 3365C, or C.I. 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** **Intermediate Dynamics:** PR: EGN 3321, 3331. Dynamics of particles, distributed mass systems, and rigid bodies from an advanced viewpoint. Virtual work. Lagrange's and Euler's equations. Hamilton's equations. **EN 3(3,0)**
- EML 5402** **Turbomachinery:** PR: EAS 4134 or EML 4703 or C.I. Application of the principles of fluid mechanics, thermodynamics, and aerodynamics to the design and analysis of pumps, compressors, and turbines. **3(3,0)**
- EML 5453** **Energy Analysis:** PR: C.I. Examination of energy demands and potential supply, computer simulation of resource depletion, alternate energy resources, transportation systems, economic and environmental constraints. **EN 3(3,0)**
- EML 5532** **Computer-Aided Design and Manufacture:** PR: EGN 3331 and EML 3500 or C.I. Theory and application of computer algorithms for the synthesis, simulation, design and manufacture of mechanical and thermal systems. **EN 3(2,2)**
- EML 5533** **Mathematical Methods in Mechanical & Aerospace Engineering:** PR: MAP 3302. Applications of vector operations and theorems, line integrals and curvilinear coordinates to heat transfer and fluid mechanics problems. Solution of heat transfer and fluid mechanics problems by complex analysis and integral methods. **EN 3(3,0)**
- EML 5546** **Engineering Design with Composite Materials:** PR: EAS 4200, or EML 3500. 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. **EN 3(3,0)**
- EML 5584** **Biomechanics and Biomaterials:** PR: EGN 3365C and EGN 3331. Properties of natural biological materials and their relation to microstructure, biocompatibility, artificial biomaterials and their applications, with analysis of biomechanical forces of the body. **EN 3(3,0)**
- EML 5572** **Probabilistic Methods in Mechanical Design:** PR: EML 3500, STA 3032. Uncertainty modelling in design. Use of probabilistic mathematics to assess strength, stiffness, toughness, and stability. Applications. **EN 3(3,0)**
- EML 5713** **Intermediate Fluid Mechanics:** PR: EML 4703. CR: EML 5533 or C.I. Fluid Kinematics; Conservation Equations; Navier-Stokes equations; Boundary Layer Flow, Inviscid Flow, Circulation and Vorticity; Induced Drag; Low Reynolds Number Flow; Turbulence. **EN 3(3,0)**
- EMR 4011** **Introduction to Mental Retardation:** PR: Senior standing. Development and practice of appropriate cognitive, affective, and motor strategies for selected categories, levels, and degrees of severity of exceptional population. **ED 4(4,0)**
- EMR 4372** **Curriculum Method and Materials for Retarded Persons:** PR: Senior standing. Development of highly specialized techniques and materials to be used with exceptional students. **ED 4(4,0)**
- ENC 1101** **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. **AS 3(3,0)**
- ENC 1101H** **Honors Freshman Composition I:** PR: Score of 60+ on TSWE of SAT or C.I. Same as ENC 1101, with honors-level content. **AS 3(3,0)**
- ENC 1102** **Composition II:** PR: ENC 1101. Extensive writing based on critical analysis of texts, library research, and/or field research. Further exploration of the writing process included, as well as potential for writing across the curriculum. **AS 3(3,0)**
- ENC 1102H** **Honors Freshman Composition II:** PR: ENC 1101H or C.I. Same as ENC 1102, with honors-level content. **AS 3(3,0)**
- Note on Freshman English Program:**  
**ENC 1101 and 1102 must be taken before enrolling in any English course numbered above 1102.**
- ENC 2290** **Careers in Writing:** An examination of career opportunities in technical writing, emphasizing industrial, commercial, and governmental opportunities. **AS 1(1,0)**
- ENC 3210** **Business Report Writing:** PR: ENC 1102. Emphasis on clear expository writing of memoranda, reports, and articles in the student's particular field. **AS 3(3,0)**
- ENC 3211** **Introduction to Technical Writing:** Provides definition, history, rhetorical bases of technical writing and its relationship to general English studies. **AS 3(3,0)**
- ENC 3241** **Technical Report Writing:** PR: ENC 1102. Instruction and practice in scientific writing, including preparation of scientific reports in the student's particular field. **AS 3(3,0)**



<b>ENC 3283</b>	<b>AS 3(3,0)</b>
<b>Science and the Lay Reader:</b> PR: ENC 3310, ENC 3311 or ENC 3341 or C.I. Analysis of lay scientific magazine articles and practice in scientific writing for the lay audience.	
<b>ENC 3310</b>	<b>AS 3(3,0)</b>
<b>Magazine Writing I:</b> 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.	
<b>ENC 3311</b>	<b>AS 3(3,0)</b>
<b>Advanced Expository Writing:</b> PR: ENC 1102. Practice of expository writing directed to general reader.	
<b>ENC 3341</b>	<b>AS 3(3,0)</b>
<b>Magazine Writing II:</b> PR: ENC 3310 or C.I. Structure and organization of articles, essays, profiles, and reviews, market analysis; data gathering. May be repeated for credit.	
<b>ENC 3942</b>	<b>AS 3(3,0)</b>
<b>Journal—Writing Practicum:</b> An interdisciplinary practicum in journal writing as a literary genre and a means of self-expansion.	
<b>ENC 4215</b>	<b>AS 3(3,0)</b>
<b>Techniques of Technical Publications:</b> 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.	
<b>ENC 4218</b>	<b>AS 3(3,0)</b>
<b>Graphics Capabilities for the Technical Writer:</b> 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.	
<b>ENC 4280</b>	<b>AS 3(3,0)</b>
<b>Technical Vocabulary:</b> PR: C.I. Review of dictionaries and articles in various technical fields. Recognition of specialized vocabulary. Familiarity with reading level indexes and standards.	
<b>ENC 4293</b>	<b>AS 3(3,0)</b>
<b>Technical Documentation I:</b> PR: ENC 3210 or 3341. 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.	
<b>ENC 4294</b>	<b>AS 3(3,0)</b>
<b>Technical Documentation II:</b> 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.	
<b>ENC 4295</b>	<b>AS 3(3,0)</b>
<b>Technical Documentation III:</b> 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.	
<b>ENG 3010</b>	<b>AS 3(3,0)</b>
<b>Practical Criticism:</b> PR: ENC 1102. Student evaluation of selected fiction, poetry, and drama through practical exercises in literary criticism.	
<b>ENG 3210</b>	<b>AS 3(3,0)</b>
<b>Literary Magazines.</b> PR: ENC 1102. Examination of fiction and poetry trends in current literary magazines, identifying editorial policies in publication of contemporary literature.	
<b>ENG 5009</b>	<b>AS 3(3,0)</b>
<b>Methods of Bibliography and Research:</b> Bibliographical, library and systematic approaches to research at the graduate level in language and literature.	
<b>ENG 5018</b>	<b>AS 3(3,0)</b>
<b>Literary Criticism:</b> PR: Graduate standing or C.I. Historical survey of major critics from classical antiquity to the modern era.	
<b>ENG 5028</b>	<b>AS 3(3,0)</b>
<b>Rhetoric and Literature:</b> PR: Graduate standing or C.I. Investigates the development of written strategies of persuasion. Traces their relation to practical and imaginative literature. Applications to classroom teaching of literature and composition.	
<b>ENL 3010</b>	<b>AS 3(3,0)</b>
<b>English Literature I:</b> PR: ENC 1102. Beowulf to 1798.	
<b>ENL 3051</b>	<b>AS 3(3,0)</b>
<b>English Literature II:</b> PR: ENC 1102. From 1798 to 1914.	
<b>ENL 3273</b>	<b>AS 3(3,0)</b>
<b>Survey of British Literature Since 1914.</b> PR: ENC 1102	
<b>ENL 4101</b>	<b>AS 3(3,0)</b>
<b>English Novel:</b> PR: Enc 1102. Analysis of major English novelists.	
<b>ENL 4220</b>	<b>AS 3(3,0)</b>
<b>English Renaissance Poetry and Prose:</b> The course will examine selected poetry and prose of Wyatt, Surrey, Sidney, Spenser, Marlowe, Raleigh, Daniel, Shakespeare, Chapman, Lyly & others.	
<b>ENL 4241</b>	<b>AS 3(3,0)</b>
<b>English Romantic Writers:</b> PR: ENC 1101, ENC 1102. Study of English poets and essayists of the romantic period, including Wordsworth, Coleridge, Hazlitt, Lamb, Byron, Shelley & Keats.	



- ENL 4251** **AS 3(3,0)**  
**The Victorian Age:** PR: ENC 1101, ENC 1102. Study of poets and essayists from 1837 to 1900, including Tennyson, the Brownings, Arnold Hopkins, Carlyle, Mill, Newman.
- ENL 4311** **AS 3(3,0)**  
**Chaucer:** PR: ENC 1102. The Canterbury Tales, Troilus and Criseyde, and other works.
- ENL 4330** **AS 3(3,0)**  
**Shakespeare Studies:** PR: ENC 1102. Reading, analysis, and discussion of Shakespeare's plays. May be repeated for credit.
- ENL 4341** **AS 3(3,0)**  
**Milton and His Age:** PR: ENC 1102. Paradise Lost, Paradise Regained, Samson Agonistes, shorter poems and selected prose.
- ENL 4353** **AS 3(3,0)**  
**18th Century Studies:** PR: ENC 1102. Reading, analysis, and discussion of literature in English: 1660-1880. May be repeated for credit.
- ENL 4373** **AS 3(3,0)**  
**Modern British Literature:** PR: ENC 1102. Major writers of modern British literature.
- ENL 5176** **AS 3(3,0)**  
**Restoration and 18th Century English Drama.** PR: Senior standing or C.I.
- ENL 5226** **AS 3(3,0)**  
**English Renaissance Poetry and Prose:** PR: Senior standing or C.I. The course will examine selected poetry and prose of Wyatt, Surrey, Sidney, Spenser, Marlowe, Raleigh, Daniel, Shakespeare, Chapman, Lyly, and others.
- ENL 5236** **AS 3(3,0)**  
**The Age of Dryden and Pope:** PR: Senior standing or C.I. Prose, poetry, drama, and literary traditions of British neoclassicism.
- ENL 5335** **AS 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 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.
- ENL 5356** **AS 3(3,0)**  
**Eighteenth Century Studies:** Reading, analysis, and discussion of literature in English: 1660-1880.
- ENU 4103** **EN 3(3,0)**  
**Nuclear Engineering:** PR: PHY 3101. Introduction to the principles of nuclear engineering, nuclear chain reactions, reactor systems and control, health physics, radiation shielding, and applications of nuclear energy.
- ENV 4121C** **EN 3(2,3)**  
**Air Pollution:** PR: EGN 3704, EGN 3353. Sources, causes, and effects of air pollution. Engineering design, analysis, and modeling for the control of air pollution.
- ENV 4341** **EN 3(3,0)**  
**Solid and Hazardous Wastes:** PR: EGN 3704 or C.I. Engineering design, planning, and analysis problems associated with storage, collection, processing, and disposal of solid and hazardous wastes.
- ENV 4433** **EN 2(1,2)**  
**Water Resources Design:** PR: CWR 4101C and CWR 4201C. Project course on designs of large and small water transmission systems using local and state regulations.
- ENV 4561** **EN 4(4,0)**  
**Environmental Engineering – Process Design:** PR: EGN 3704 and EGN 3353. Water treatment and wastewater treatment design considerations with effluent and sludge handling, treatment, and disposal.
- ENV 4562** **EN 2(1,2)**  
**Environmental Engineering Systems Design:** PR: ENV 4651. CR: CWR 4201C Project course on design of water and wastewater treatment plants, solid waste, and atmospheric controls.
- ENV 4651** **EN 3(3,0)**  
**Urban Systems Engineering:** PR: C.I. Theories and history of city development with administrative, planning, management, and maintenance of municipal services.
- ENV 5045L** **EN 1(0,2)**  
**Research Methods in Environmental Engineering:** PR: STA 3032, ENV 4561 or C.I. Experimental design and modeling of environmental engineering systems using fundamental concepts of computer programming, probability and statistics.
- ENV 5071** **EN 3(3,0)**  
**Environmental Analysis of Transportation Systems:** PR: EGN 3704, ENV 4121C or C.I. The course deals with the environmental process needed for the successful planning of transportation projects. The analysis of noise, air quality, wetlands, and other environmental areas will be covered in addition to abatement measures.
- ENV 5413** **EN 3(3,0)**  
**Outdoor Noise Control:** PR: C.I.I. Community noise evaluations and control, legislative standards, instrumentation and measurement, abatement methods, and noise modeling.



- ENV 5505** **EN 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.
- ENV 5615** **EN 3(3,0)**  
**Environmental Impact Assessment:** PR: C.I. Estimating, predicting, and evaluating the effects of projects, processes, and systems upon the environment and human society.
- ENV 4004C** **AS 4(2,6)**  
**General Entomology:** PR: ZOO 2010C. Introduction to insects; their identification, biology, and ecology.
- EPH 5335** **ED 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.
- ESE 3940** **ED 3-16(0,3-16)**  
**Junior Student Teaching -- Secondary Level:** PR: EDG 4321. Student teaching in a secondary school under the supervision of a certified classroom teacher.
- ESE 4943** **ED 7-12(0,35)**  
**Senior Student Teaching -- Secondary Level:** 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 3(3,0)**  
**Secondary School Curriculum Improvement:** PR: Regular Certificate or C.I. Secondary School self studies for curriculum projects, accreditation reports, or staff development.
- ESI 4234** **EN 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** **EN 3(3,0)**  
**Operations Research** PR: STA 3032, EIN 4118C. Introduction to linear, non-linear, and dynamic programming. Decision analysis, random processes, and queueing. Course covers theory through application and implementation of results.
- ESI 4314** **EN 3(3,0)**  
**Quantitative Techniques in Industrial Engineering:** PR: EGN 4634 and STA 3032. Extension of EGN 4634 and STA 3032, with primary emphasis on O.R. and statistical applications to industrial engineering problems.
- ESI 4523C** **EN 3(2,3)**  
**Systems Simulation:** PR: STA 3032, EIN 4118C. Methods and procedures for simulating large-scale systems with digital computers. FORTRAN and simulation languages are used.
- ESI 5170** **EN 3(2,3)**  
**Microcomputer Practicum:** PR: Graduate standing or C.I. Survey of personal computer programming and use in decision support applications in engineering.
- ESI 5236** **EN 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 5316** **EN 3(3,0)**  
**Operations Research:** PR: EGN 4634. Methods of operations research, including formulation for models and derivation of solutions; linear programming, network models queueing theory, simulation, and nonlinear optimization techniques.
- ESI 5451** **EN 3(3,0)**  
**Network Based Project Planning, Scheduling and Control:** PR: ESI 4312 or ESI 5316. Probabilistic and deterministic approaches for planning, scheduling, and controlling complex, large scale projects. PERT, CPM, resource leveling, risk analysis.
- ESI 5531** **EN 3(3,0)**  
**Discrete Systems Simulation:** PR: STA 3032, CGS 3422. Methods for performing discrete systems simulation, including network modeling will be treated.

- EST 4502C** **EN 3(2,2)**  
**Electro-Mechanical Design:** PR: EET 3035C and CET 3123C. An introduction to mechanical, electro-mechanical, and pneumatic devices and their various process control applications in industry. The design of fundamental control circuits is presented.
- ETC 4241C** **EN 4(3,2)**  
**Construction Methods, Contracts and Specifications:** PR: Engineering drawing. Construction principles, details, materials and methods used. Legal contractual provisions and interrelations of specifications applied to construction.
- ETC 4414C** **EN 3(2,2)**  
**Applied Structural Design I:** PR: ETG 4530C. Introduction to indeterminate analysis. Design of steel members, components and connections. Current code and specification requirements.
- ETC 4415C** **EN 3(2,2)**  
**Applied Structural Design II:** PR: ETG 4530C. Strength design of reinforced concrete members, foundations, slabs, and walls. Current code and specification requirements.
- ETD 3350C** **EN 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 3541** **EN 4(4,0)**  
**Applied Mechanics:** PR: MAC 1104 and MAC 1114 and PHY 3053C or equivalent. Coplanar, parallel, concurrent, and non-concurrent force systems. Centroids, CG's, moments of inertia. Principles of dynamics, rectilinear motion and rotation, work, energy, power, impulse, momentum, and impact.
- ETG 4530C** **EN 4(3,2)**  
**Strength of Materials:** PR: ETG 3541. Relationship between external forces and action of members of a structure. Topics include stress, strain, shear, moment, deflections, columns, connections, and Mohr's circle.
- ETG 4950** **EN 2(0,4)**  
**Senior Design Project:** PR: ETG 3541. Design or Operations Engineering Technology seniors in their graduation year. Supervised individual or group projects involving project definition, planning, development, testing, and evaluation. Progress reports and a final report are required.
- ETI 3421** **EN 3(3,0)**  
**Materials and Processes:** PR: MAC 1104 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** **EN 3(3,2)**  
**Product Design:** Principles of layout and dimensions for production. Consideration of design factors, standards, specifications, and codes, with emphasis on productability.
- ETI 3651C** **EN 4(3,2)**  
**Computer Applications:** PR: COP 1200 or equivalent. Application of high-level program packages to solve problems in industrial practices.
- ETI 3671** **EN 2(0,0)**  
**Technical Economic Analysis:** PR: MAC 1104 or equivalent, Junior standing. Analysis of cost elements in technical operations. Basis for comparison of alternatives.
- ETI 3690** **EN 2(2,0)**  
**Technical Sales:** Application of technical knowledge to sales and service. Relationship of technical sales organization to production, customers, and competitors.
- ETI 4110** **EN 3(3,0)**  
**Industrial Quality Control:** PR: MAC 1104. Fundamentals of industrial quality control. Technical specifications, measurements standards, inspection, and gaging. Process control techniques.
- ETI 4186** **EN 3(3,0)**  
**Applied Reliability:** PR: ETI 4110. Practical application of reliability concepts and analysis applicable to the design, production and logistics phases of systems and system components.
- ETI 4522C** **EN 3(2,3)**  
**Applied Automated Systems:** PR: CET 4131C. Fundamentals of automation in analysis and design of industrial control systems using microprocessors and minicomputers. Real-time industrial models.
- ETI 4640** **EN 4(4,0)**  
**Process Planning and Work Measurement:** PR: COP 1200 or equivalent. Scheduling techniques (CPM), simulation, and MRP are presented. Work measurement techniques, work sampling, and MTM are also covered.
- ETI 4661C** **EN 3(2,2)**  
**Applied Facilities Planning and Design:** PR: Engineering drawing and senior standing. The design of manufacturing facilities and material handling systems.
- ETI 4700** **EN 2(2,0)**  
**Occupational Safety:** Accident prevention and the operation of an industrial safety program. Basic requirements of the Occupational Safety and Health Act standards.
- ETM 4220** **EN 2(2,0)**  
**Applied Energy Systems:** PR: ETM 4331. Introduction to solar energy systems, thermal and photovoltaic, bio-gas-methane gas systems. Applications to be stressed.



- ETM 4331** **EN 4(4,0)**  
**Applied Thermodynamics and Fluid Mechanics:** PR: MAC 3253 or equivalent; Chemistry; College Physics. Introduction to energy, work, and thermal systems and processes. Flow through pipes, orifices and nozzles.
- ETM 4403C** **EN 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** **EN 3(2,2)**  
**Applied Design of Machine Elements:** PR: ETG 3541, ETG 4530C, ETM 4403C and Engineering Drawing. Design of basic machine elements, including cams, gears, bearings, and coupling, taking into account loads, stresses, and strength of materials.
- ETM 4755** **EN 4(4,0)**  
**Applied Air Conditioning:** PR: ETM 4331. Analysis of body comfort, psychometrics, heating and cooling load, specification of air conditioning systems, air distribution systems and system piping requirements.
- EUH 2000** **AS 3(3,0)**  
**Western Civilization I:** A survey of western civilization from ancient to 1648.
- EUH 2001** **AS 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 3122** **AS 3(3,0)**  
**Medieval Society and Civilization:** PR: EUH 2000 and 2001 or C.I.
- EUH 3142** **AS 3(3,0)**  
**Renaissance and Reformation:** PR: EUH 2000 and 2001 or C.I. The influence of Renaissance humanism on arts, letters, and politics; Luther and Protestantism; the Catholic Counter-Reformation and the Thirty Years' War.
- EUH 3235** **AS 3(3,0)**  
**Romanticism and Realism:** PR: EUH 2000 and 2001 or C.I. Napoleon and nationalism; new ideas; conservatism; liberalism, romanticism, republicanism and socialism; urbanization, technology and mass culture, religious decline; Realpolitik, racism, imperialism, and militarism.
- EUH 3281** **AS 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 3411** **AS 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 3651** **AS 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 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 3(3,0)**  
**Hitler's Third Reich:** PR: EUH 2000 and 2001 or C.I. German nationalism and militarism; World War I and the Versailles Treaty; the Weimar Republic and the rise of the Nazis; Second World War, division and recovery.
- EUH 4500** **AS 3(3,0)**  
**English History to 1485:** PR: EUH 2000 and 2001 or C.I.
- EUH 4501** **AS 3(3,0)**  
**English History: 1485-1815:** PR: EUH 2000 and 2001 or C.I.
- EUH 4502** **AS 3(3,0)**  
**British History: 1815-Present:** PR: EUH 2000 and 2001 or C.I.
- EUH 4571** **AS 3(3,0)**  
**History of Russia to 1801:** PR: EUH 2000 and 2001 or C.I. Kievan State; Mongol Yoke; Development of Muscovite Expansionism and Absolutism; Time of Troubles; Westernization of Russia under Peter I and Catherine; Role of Orthodox Church.
- EUH 4574** **AS 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 3(3,0)**  
**History of the Soviet Union: 1917-Present:** PR: EUH 2000 and 2001 or C.I. First War; 1917 Revolutions; Civil War; New Economic Policy; Stalin-Trotsky Struggle; Collectivization; Stalinist Purges; Second War; Post-Stalin Russia; Khrushchev; Sino-Soviet Relations.



- EUH 4620** **AS 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 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 WW I to the present.
- EUH 5247** **AS 3(3,0)**  
**Colloquium in Europe, 1919-1939:** PR: Senior standing or C.I. Selected topics in the historical literature of Europe from the Paris Peace Conference to the outbreak of the Second World War.
- EUH 5517** **AS 3(3,0)**  
**Colloquium in Tudor-Stuart England:** PR: Senior standing or C.I. Intensive reading and class discussion on selected topics during the Tudor-Stuart era.
- EUH 5579** **AS 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 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 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.
- EVS 4795** **EN 3(2,2)**  
**Air Pollution Control:** Fundamental techniques applicable to analyzing composition and sources of pollutants, measuring concentrations, and controlling emissions. Air pollution control programs, laws, rules, and regulations.
- EVT 3062** **ED 3(3,0)**  
**Professional Role of the Vocational Teacher:** PR: EVT 3371 or C.I.
- EVT 3312** **ED 4(4,0)**  
**Course Construction in Health Occupations Education:** PR: EVT 3365 or C.I. Planning and preparation of materials, managing the laboratory and involvement in appropriate Vocational Student Organizations. Clinical instruction related to vocational education and industry training.
- EVT 3365** **ED 4(4,0)**  
**General Methods/Testing Evaluation in Vocational Education:** General teaching methods, testing and evaluation. Techniques specific to Vocational Education and Industry Training.
- EVT 3367** **ED 3(3,0)**  
**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 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 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 3815** **ED 3(3,0)**  
**Management of the Vocational Classroom and Laboratory:** PR: EVT 3371 or C.I. Organization and management of school facilities for instructional purposes and skill in providing for student health and safety.
- EVT 4065** **ED 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 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 trainer's analysis tasks.
- EVT 4368** **ED 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** **ED 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 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.
- EVT 5316** **ED 2-3(2-3,0)**  
**Clinical Coordination for the Health Occupations Teacher:** PR: Regular Certificate or C.I. Development of clinical guidelines, resources, student schedules, and risk-management programs. Includes negotiating clinical contractual agreements and planning field supervision.
- EVT 5561** **ED 2-3(2-3,0)**  
**Student Guidance in the Vocational Program:** PR: Regular 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 5564** **ED 2-3(2-3,0)**  
**Student Vocational Organizations:** PR: Regular Certificate or C.I. Competencies needed by vocational teachers as they establish and supervise student vocational organizations in secondary and post-secondary schools.
- EVT 5817** **ED 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 4(2,2)**  
**Perception:** PR: PSY 2013, PSY 3214. Consideration of physical and psychological variables in perceptual phenomena. Lecture/Lab.
- EXP 3304** **AS 3(3,0)**  
**Motivation:** PR: PSY 2013. Psychological and physiological aspects of human motivation.
- EXP 3404** **AS 4(2,2)**  
**Basic Learning Processes:** PR: PSY 2013 and PSY 3214. Theories and research findings from basic laboratory investigation of learning phenomena. Lecture/Lab.
- EXP 3513C** **AS 4(2,2)**  
**Cognitive Psychology:** Theory and research on attention, memory, complex human learning, and problem solving.
- EXP 5208** **AS 3(3,0)**  
**Sensation & Perception:** PR: C.I. A study involving the human information processing with regard to physical and psychological variables in sensory and perceptual phenomena.
- EXP 5255** **AS 3(3,0)**  
**Human Performance:** PR: C.I. Human performance dimensions and concepts of assessment of human capabilities; performance acquisition, information processing and decision-making; applications of principles to understanding of stress and performance effectiveness.
- EXP 5256** **AS 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 5445** **AS 3(3,0)**  
**Psychology of Learning and Motivation:** 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.
- EXP 5506** **AS 3(3,0)**  
**Human Cognition and Learning:** PR: EXP 3404 and EXP 3513. Research and theory relating to attention, memory, problem solving, and reasoning.
- EXP 5608** **AS 3(3,0)**  
**Cognition:** PR: C.I. Pattern recognition, attention, short-term memory, long-term memory, visual imagery, categorization, language, problem solving.
- FIL 3100** **AS 3(3,0)**  
**Film and Television Writing:** PR: Grammar Proficiency Exam. Introduction to techniques of scriptwriting. Intensive initiation into dramatic writing. Basic elements of mediated storytelling.
- FIL 3200** **AS 3(1,2)**  
**Beginning Film Production:** Introduction to production utilizing video equipment. Basic technical and aesthetic aspects of production.
- FIL 3242** **AS 3(2,3)**  
**Film Design:** PR: ART 2201, ART 2300 and ART 2301. A series of exercises in craft, technique, and production design for film animation. Several types of animation techniques are explored.
- FIL 3300** **AS 3(3,0)**  
**Film Documentary:** The uses and analysis of the non-fiction film.
- FIL 3400** **AS 3(2,2)**  
**History of Motion Pictures:** The history of motion pictures as art and industry: from 1895 to the present.
- FIL 3410** **AS 3(3,0)**  
**History of Animated Films:** Survey from early animators to the development of the "cartoon" industry. Television animation included.



- FIL 3503** **AS 3(2,2)**  
**Film Theory:** Reading and writing in film theory; major historical and social emergences in the theoretical approach to film.
- FIL 3522** **AS 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 4102** **AS 3(3,0)**  
**Screen Adaptation:** PR: FIL 3100 or CRW 3410; Grammar Proficiency Examination. Study of mediated narrative other than film/video and the adaptation of those forms into the screenplay.
- FIL 4103** **AS 3(3,0)**  
**Advanced Screen Writing:** PR: FIL 3100, or CRW 3410; FIL 4102, Grammar Proficiency Examination. Accelerated program of screenwriting.
- FIL 4104** **AS 3(3,0)**  
**Senior Seminar in Screen Writing:** PR: FIL 4103, Grammar Proficiency Examination. Students write an economically viable feature-length screenplay. Emphasis on story ideation and character creation. Rewrites.
- FIL 4202** **AS 3(1,2)**  
**Film Studio Techniques:** PR: FIL 3200, FIL 4201. Culmination of the production sequence. Emphasizes 16/35 millimeter production within the context of a studio environment.
- FIL 4201** **AS 3(1,2)**  
**Advanced Film Production:** PR: FIL 3200. Advanced exploration of the aesthetic and technical facets of filmmaking.
- FIL 4208** **AS 3(3,0)**  
**Film Directing:** PR: FIL 4201. Principles and practice in directing narrative and documentary motion pictures.
- FIL 4220** **AS 3(3,0)**  
**Art Direction for Film:** PR: FIL 3200, FIL 4201. Analysis of visual structure of film. Specific problems in art direction.
- FIL 4230** **AS 3(2,3)**  
**Film Graphics Animation:** PR: FIL 3410, FIL 3242. Problems involving conceptual design and scenic space are explored using various media, materials, and techniques.
- FIL 4231** **AS 3(2,3)**  
**Computer Animation:** PR: FIL 3410, FIL 3242. Mechanics of the moment are analyzed as students prepare animation boards using computer technology.
- FIL 4504** **AS 3(2,2)**  
**Motion Picture Genre/Aesthetics:** PR: FIL 3503 Analysis and evaluation of films; major genres, directors, styles, or periods considered in depth.
- FIL 4600** **AS 3(3,0)**  
**The Film Producer:** PR: FIL 4208. The role of the producer is examined in the context of theatrical film.
- FIL 4601** **AS 3(3,0)**  
**Production Management:** PR: FIL 3200. Preproduction, budgeting, script breakdown, construction of production boards, scheduling, location scouting, and crew procurement.
- FIL 4942** **AS 3(2,3)**  
**Animation Workshop:** PR: FIL 4230, FIL 4231. An intensive study of various film animation techniques under the tutelage of professional animators.
- FIN 3100** **BA 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 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 3324** **BA 3(3,0)**  
**Management of Financial Institutions:** PR: FIN 3303, FIN 3404, FIN 3504, FIN 3453. Analysis of management policies of financial institutions, including asset, liability, and capital management. The economic and regulatory influence on competition is considered.
- FIN 3403** **BA 3(3,0)**  
**Business Finance:** PR: ACG 2001, ACG 2071, STA 3023. 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 3404** **BA 3(3,0)**  
**Intermediate Corporate Finance:** PR: FIN 3403. In-depth study of the principles of corporate finance. Investment, financing, and capital decisions are examined.
- FIN 3453** **BA 3(3,0)**  
**Financial Models:** PR: FIN 3403, ECO 3411. Mathematical models applied specifically to financial problems, including those models suitable for representation and solution on computers.



- FIN 3504** **BA 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 4127** **BA 3(3,0)**  
**Employee Benefits and Retirement Planning:** PR: FIN 3303, FIN 3404, FIN 3504, FIN 3453. This course considers the process of establishing specific financial objectives at various stages of life and how those objectives can be reached.
- FIN 4514** **BA 3(3,0)**  
**Portfolio Analysis and Management:** PR: FIN 3303, FIN 3404, FIN 3504, FIN 3453. Portfolio and capital market theory in the determination of rational investment policies. Risk analysis, portfolio analysis, and evaluation techniques.
- FIN 4424** **BA 3(3,0)**  
**Advanced Topics in Financial Management:** PR: FIN 3303, FIN 3404, FIN 3504, FIN 3453. Advanced study in financial management. Topics include capital budgeting, financial structure, and capital decisions. Case studies used extensively.
- FIN 4503** **BA 3(3,0)**  
**Speculative Financial Markets:** PR: FIN 4514. Study of options, futures, forward, and other speculative markets. Investments traded in these markets are examined analytically. Pricing and hedging models are considered.
- FIN 4604** **BA 3(3,0)**  
**International Financial Management:** PR: FIN 3403, FIN 3303, FIN 3404, FIN 3504, FIN 3453, GEB 4351. Analysis of the foreign financial methods and investment, currency futures market, capital budgeting, cash management, examination of Eurocurrency market and international bond markets.
- FIN 5405** **BA 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.
- FLE 3063** **ED 2(2,1)**  
**Foreign Language as Human Behavior:** PR: Or CR: LIN 3010 or C.I. Nature of language, language learning, and teaching basic skills. Weekly laboratory.
- FLE 3333** **ED 4(3,2)**  
**Foreign Language Instructional Analysis:** EDG 4321. Objectives for a school curriculum and of methods and materials for teaching foreign language.
- FRE 1005** **AS 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 1115** **AS 2(2,1)**  
**Basic Review of French:** A review of French grammar, vocabulary and civilization. For students with previous instruction in French. Graded S or U.
- FRE 1120** **AS 4(4,1)**  
**Elementary French Language and Civilization I:** Designed to initiate the student to the major language skills. Open only to students with no previous experience with this language.
- FRE 1121** **AS 4(4,1)**  
**Elementary French Language and Civilization II:** PR: FRE 1115, FRE 1120 or experience with this language. Continuation of FRE 1120.
- FRE 1170** **AS 8(16,10)**  
**Elementary French Study Abroad:** Elementary French language and civilization taught in the native environment.
- FRE 2200** **AS 4(4,1)**  
**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 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 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 8(16,10)**  
**Intermediate French Study Abroad:** PR: Elementary French. Intermediate French language and civilization taught in the native environment.
- FRE 3244** **AS 3(3,1)**  
**French Conversation:** PR: FRE 2201 or equivalent. Development of skills in conversation and comprehension. This course may be repeated for credit. When repeated, credit will apply to general electives only.
- FRE 3420** **AS 3(3,0)**  
**French Composition:** PR: FRE 2201 or equivalent. Development of skills in composition. This course may be repeated for credit. When repeated, credit will apply to general electives only.



- FRE 4421** **AS 3(3,0)**  
**Advanced French Conversation:** PR: FRE 3244. Advanced conversation on directed topics from various disciplines. Literature, art, psychology, philosophy, music, business, and the sciences.
- FRE 4422** **AS 3(3,0)**  
**Advanced French Composition:** PR: FRE 3420. Readings and written limitations of modern literary styles in the form of themes, sketches, poems, and original stories.
- FRE 4500** **AS 3(3,0)**  
**French Civilization and Culture:** PR: FRE 3244 or FRE 3420. A survey analyzing development of key elements of French life: its historical, artistic, intellectual, scientific, spiritual contributions to the world via readings, lectures, films, and other media. Conducted in French.
- FRE 4780** **AS 3(3,0)**  
**French Phonetics and Diction:** PR: FRE 3244 or equivalent. French phonology, with emphasis on phonic groupings.
- FRW 3100** **AS 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 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 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 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 4281** **AS 3(3,0)**  
**Twentieth Century French Literature:** PR: FRW 3101. Contemporary French novel.
- FRW 4310** **AS 3(3,0)**  
**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 3(3,0)**  
**20th Century French Literature:** PR: FRW 3101. Contemporary French drama. Authors: A. Jarry, Jules Romains, J. Giraudoux, J.P. Sartre, A. Camus, E. Ionesco, Samuel Beckett.
- FRW 4440** **AS 3(3,0)**  
**French Literature of the Eighteenth Century:** PR: FRW 3100. The philosophical movement: Montesquieu, Vauvenargues, Voltaire, Diderot, Buffon.
- FRW 4532** **AS 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 3(3,0)**  
**Nineteenth Century French Literature:** PR: FRW 3101. Realism and naturalism.
- FRW 4820** **AS 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 2202C** **HPA 3(1,3)**  
**Food Production Techniques:** PR: HFT 1000. Basic principles of menu planning, food and beverage preparation and service. Laboratory work.
- FSS 3120** **HPA 3(3,0)**  
**Quantity Food Purchasing:** PR: HFT 1000; FSS 2202C. The purchasing procedures, specifications, and controls of food products in the hospitality industry.
- FSS 3223** **HPA 3(3,0)**  
**Quantity Food Management:** PR: HFT 1000; FSS 2202C. Management of food production in institutions, quality control, recipe standardization, portion and cost control, menu planning.
- FSS 3232C** **HPA 3(1,3)**  
**Intermediate Techniques of Food Production:** PR: HFT 1000, FSS 2202C. An advanced food production course which provides the student the opportunity to develop skills in pantry, garde manager, garnishing, and convenience foods and services. Laboratory class.
- FSS 3241C** **HPA 3(1,3)**  
**Classical Cuisine/Volume Feeding:** PR: HFT 1000, FSS 2202C, FSS 3223. Provides the student with production and managerial experience in the area of world renowned traditional dishes, lecture, demonstration, and actual preparation of menu items.
- FSS 3301** **HPA 3(3,0)**  
**Nutrition Concepts and Issues in the Foodservice Industry:** PR: HFT 1000, FSS 3223. Introduces basic nutrition concepts. Discusses nutrition concepts and concerns in relation to food preparation and service in the hospitality industry.



<b>FSS 4226</b>	<b>HPA 3(3,0)</b>
<b>Sanitation in the Food Service Industry:</b> PR: HFT 1000, FSS 3223. The causes and prevention of food spoilage and food-borne illnesses. Certification through NIFI and ETS are both USDA approved.	
<b>FSS 4284C</b>	<b>HPA 3(1,3)</b>
<b>Catering and Banquet Organization:</b> PR: HFT 1000, FSS 2202C. Methods and procedures for successful on and off premise catering functions. Emphasis on food and beverage preparation, menu planning, service and sales techniques. Laboratory class.	
<b>GEA 4206</b>	<b>EN 3(3,0)</b>
<b>Physical Geography of North America:</b> Analysis of the North American landscape as affected by climate, vegetation, and geomorphology.	
<b>GEB 3004</b>	<b>BA 3(3,0)</b>
<b>Management:</b> PR: Junior standing. The interdisciplinary application of the managerial functions of planning, organizing, leading, and controlling. For Non-Business Majors ONLY.	
<b>GEB 4361</b>	<b>BA 3(3,0)</b>
<b>Business in the International Environment:</b> PR: ECO 2013, 2023, ACG 2071 or 3023, FIN 3403, MAR 3023, MAN 3025. Provides an overall understanding of the nature, magnitude, and importance of the international business sector.	
<b>GEO 1200</b>	<b>EN 3(3,0)</b>
<b>Physical Geography:</b> Basic physical elements of geography, including climate, landforms, soils, natural vegetation, minerals, and their integrated patterns of world distribution.	
<b>GEO 1200L</b>	<b>EN 1(0,2)</b>
<b>Physical Geography Laboratory:</b> CR: GEO 1200. Analysis of climatic and meteorology methods topographic and geological maps, landforms, and landscape interpretation.	
<b>GEO 3370</b>	<b>EN 3(3,0)</b>
<b>Resources Geography:</b> Analysis of basic principles and problems associated with development, use, conservation, and management of natural resources, with special emphasis on the United States.	
<b>GEO 3370H</b>	<b>EN 3(3,0)</b>
<b>Resources Geography (Honors):</b> Analysis of human management of global resources and the resulting impact on the world's environment.	
<b>GEO 3470</b>	<b>AS 3(3,0)</b>
<b>World Political Geography:</b> Analysis of factors which affect power relations among nations, including area, location, political styles, ethnic divisions, and the politics of energy.	
<b>GEO 4140</b>	<b>EN 3(2,2)</b>
<b>Remote Sensing of the Environment:</b> PR: GEO 1200 or C.I. Interpretation and application of remote sensor imagery to physical, economic, and urban analysis.	
<b>GEO 4141</b>	<b>EN 3(2,2)</b>
<b>Geographic Information Systems:</b> PR: GEO 1200 or GEO 3370 and programming experience. Analysis of land use, development, and natural resource planning through the employment of graphic and database management techniques.	
<b>GER 1005</b>	<b>AS 1(0,1)</b>
<b>German Diction:</b> This course is especially designed for music and voice students, with an emphasis on musical terms, German songs, and opera libretti.	
<b>GER 1115</b>	<b>AS 2(2,1)</b>
<b>Basic Review of German:</b> A review of German grammar, vocabulary and civilization. For students with previous instruction in German. Graded S or U.	
<b>GER 1120</b>	<b>AS 4(4,1)</b>
<b>Elementary German Language and Civilization I:</b> Designed to initiate the student to the major language skills. Open only to students with no previous experience with this language.	
<b>GER 1121</b>	<b>AS 4(4,1)</b>
<b>Elementary German Language and Civilization II:</b> PR: GER 1115, GER 1120 or experience with this language. Continuation of GER 1120.	
<b>GER 2200</b>	<b>AS 4(4,1)</b>
<b>Intermediate German Language and Civilization I:</b> PR: GER 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.	
<b>GER 2201</b>	<b>AS 3(3,1)</b>
<b>Intermediate German Language and Civilization II:</b> PR: GER 2200 or equivalent. Continuation of GER 2200 with emphasis on German civilization.	
<b>GER 2210</b>	<b>AS 3(3,0)</b>
<b>Beginning German Conversation:</b> PR: One year of German or equivalent. Practical use of the language, leading toward fluency and correctness in speaking.	
<b>GER 3240</b>	<b>AS 3(3,0)</b>
<b>Intermediate German Conversation:</b> PR: GER 2201 or equivalent. Development of skills in conversation and comprehension through practice.	
<b>GER 3420</b>	<b>AS 3(3,0)</b>
<b>Intensive German Composition:</b> PR: GER 2201 or equivalent. Development of skills in composition.	



<b>GER 3440</b>	<b>AS 3(3,0)</b>
<b>Business German I:</b> PR: GER 2200. Introduction into German business language and practices.	
<b>GER 3441</b>	<b>AS 3(3,0)</b>
<b>Business German II:</b> PR: GER-3440. Continuation of Business German I.	
<b>GER 4510</b>	<b>AS 3(3,0)</b>
<b>Life and Culture in Nazi Germany:</b> PR: C.I. Confrontation with the development of national socialist ideas and their realization in everyday life and culture. Given in German.	
<b>GER 4520</b>	<b>AS 3(3,0)</b>
<b>Modern German:</b> An introduction to the history of postwar Germany—from the two Germanies to unification and today's Germany. Given in German.	
<b>GEW 3100</b>	<b>AS 3(3,0)</b>
<b>Survey of German Literature I:</b> PR: GER 2201 or equivalent. Main literary currents and works from the Middle Ages through the 19th Century Romanticism.	
<b>GEW 3101</b>	<b>AS 3(3,0)</b>
<b>Survey of German Literature II:</b> PR: GER 2201 or equivalent. Main literary currents and works from 19th Century Realism to the present.	
<b>GEW 3370</b>	<b>AS 3(3,0)</b>
<b>Short Story:</b> PR: GER 2201 or equivalent. German short prose works of the 19th and 20th centuries.	
<b>GEW 3480</b>	<b>AS 3(3,0)</b>
<b>German Post-War Literature:</b> PR: GER 2201. This course examines the work of German, Austrian and Swiss writers after World War II.	
<b>GEW 4482</b>	<b>AS 3(3,0)</b>
<b>German Children's Literature:</b> PR: GER 2200. A look into the history of German children's literature with a concentration on work after World War II.	
<b>GEW 4531</b>	<b>AS 3(3,0)</b>
<b>The Age of Goethe and Schiller:</b> PR: GER 2201. Selected texts of Goethe and Schiller are examined, with particular attention to their relationship to both German classicism and German romanticism.	
<b>GLY 1030</b>	<b>AS 3(3,0)</b>
<b>Geology and its Applications:</b> 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.	
<b>HBR 1120</b>	<b>AS 4(4,0)</b>
<b>Elementary Modern Hebrew Language and Culture I:</b> 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.	
<b>HBR 1121</b>	<b>AS 4(4,0)</b>
<b>Elementary Modern Hebrew Language and Culture II:</b> PR: HBR 1120 or equivalent. Continuation of HBR 1120.	
<b>HBR 2200</b>	<b>AS 4(4,0)</b>
<b>Intermediate Modern Hebrew I:</b> 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.	
<b>HBR 2201</b>	<b>AS 3(3,0)</b>
<b>Intermediate Modern Hebrew II:</b> PR: HBR 2200. Continuation of HBR 2200.	
<b>HBT 3220</b>	<b>AS 3(3,0)</b>
<b>The Israeli Short Story in Translation:</b> Israeli experience as reflected in contemporary stories read in translation. Selected stories by Agnon, Hazaz, Yizhar, Appelfeld, and others will be read and analyzed.	
<b>HFT 1000</b>	<b>HPA 3(3,0)</b>
<b>Introduction to the Hospitality and Tourism Industry:</b> An orientation to the hotel, restaurant, and travel industry, and its history, structure, and operating procedures.	
<b>HFT 2252</b>	<b>HPA 3(3,0)</b>
<b>Rooms Division Management:</b> PR: HFT 1000. Practices and systems utilized in the operational management of the front office, reservation, and housekeeping in hotels/motels.	
<b>HFT 2750</b>	<b>HPA 3(3,0)</b>
<b>Fundamentals of Conventions and Conferences:</b> PR: HFT 1000. An orientation to convention management field. Designed to illustrate the importance of conventions, meeting, and trade shows to the hospitality industry.	
<b>HFT 3313</b>	<b>HPA 3(3,0)</b>
<b>Hospitality Physical Plant Management:</b> PR: HFT 1000, HFT 2252. Analysis of operational problems related to the physical plant and structure of enterprises in the hospitality industry.	
<b>HFT 3444</b>	<b>HPA 3(3,0)</b>
<b>Management Information Systems:</b> PR: HFT 1000, HFT 2252, CGS 3000. Analysis, design and implementation of specialized information systems for lodging, food service and travel operations. Special emphasis is placed on implications for management organization, planning, and control of such systems in the hospitality environment.	
<b>HFT 3600</b>	<b>HPA 3(3,0)</b>
<b>Legal Environment in the Hospitality and Tourism Industry:</b> PR: HFT 1000. Principles of law as related to the Hospitality/Tourism Industry.	



- HFT 3700** **HPA 3(3,0)**  
**Travel and Tourism Administration:** PR: HFT 1000. Foreign and domestic tourism supply and demand, economic impacts, organization of tourism, social and cultural aspects.
- HFT 3751** **HPA 3(3,0)**  
**Convention and Conference Operations:** PR: HFT 1000. HFT 2750 (Fundamentals of Conventions and Conferences) provides an in-depth understanding of the multiple facets of on-site operations associated with effective convention and conference planning and management.
- HFT 3931** **HPA 1(1,0)**  
**Hospitality Guest Lectures:** PR: HFT 1000. A series of 14 lectures by prominent hospitality practitioners intended to expose students to various aspects of the Hospitality/Tourism industry.
- HFT 3949** **AS 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.
- HFT 4210** **HPA 3(3,0)**  
**Hospitality Human Resources Development:** PR: HFT 1000, HFT 2252. Proven training systems and personnel development methods for hospitality industry employees are presented. Specific applications of alternative methodologies are identified.
- HFT 4250** **HPA 3(3,0)**  
**Hotel-Motel Management and Operations:** PR: HFT 1000, HFT 2252, MAR 3023, HFT 4503. A study of the organization and operations of hotel/motels and their various departments with emphasis on techniques and tools of management in the industry.
- HFT 4343** **HPA 3(3,0)**  
**Hospitality Facilities Planning and Design:** PR: HFT 1000, HFT 2252, HFT 3313. Principles of facility planning layout and design that maximize efficiency in hospitality operations.
- HFT 4420** **HPA 3(3,0)**  
**Profit Planning and Decision-Making in the Hospitality Industry:** PR: ACG 2001, ACG 2071 (or ACG 2023), HFT 3444. Emphasizes the use of financial statement data in the decision-making process relative to short/long-term financial goals in the hospitality industry environment.
- HFT 4735** **HPA 3(3,0)**  
**Tourism Geography:** PR: HFT 1000, HFT 3700. A seminar discussing the main geographical tourism destinations in U.S. and the World.
- HFT 4473** **HPA 3(3,0)**  
**Hotel Development Analysis:** PR: HFT 1000, HFT 4503, HFT 4420. Review of methodological operational, financial, and marketing aspects of analyses for hotel development projects.
- HFT 4503** **HPA 3(3,0)**  
**Hospitality and Tourism Marketing:** PR: MAR 3023, HFT 1000. The application of marketing concepts to the Hospitality and Tourism Industry. Special emphasis on marketing planning and strategic marketing.
- HFT 4717** **HPA 3(3,0)**  
**Tourism Planning and Development:** PR: HFT 1000, HFT 3700. Analysis and review of physical, economic, social, and environmental planning techniques used in tourism destination development.
- HFT 4722** **HPA 3(3,0)**  
**Travel Agency Management:** PR: HFT 1000, HFT 3700. The trends operation management procedures and practices of travel agents. Emphasis on tools utilized in agency operations.
- HFT 4752** **HPA 3(3,0)**  
**Convention Promotion and Public Relations:** PR: HFT 1000. HFT 2750 (Fundamentals of Conventions and Conferences) Introduces specific concepts related to marketing conventions and meetings. Also considers destination marketing and telemarketing concepts in relation to convention management.
- HFT 4753** **HPA 3(3,0)**  
**Convention and Conference Services:** PR: HFT 1000, HFT 2750. 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** **HPA 3(3,0)**  
**Exhibit and Trade Show Operations:** PR: HFT 1000. HFT 2750 (Fundamentals of Conventions and Conferences). Provides an in-depth study of exhibit and trade show operations. Focuses on both supply and demand pertaining to exhibits and trade shows.
- HFT 4860** **HPA 3(3,0)**  
**Beverage Management:** PR: HFT 1000, FSS 2202C, FSS 3223. The origin production, storing, marketing, and control of beverages in the hospitality industry.
- HFT 4949** **HPA 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.
- HIS 3462** **AS 3(3,0)**  
**History of Scientific Thought:** PR: EUH 2000 and 2001 or C.I. History of science from the Greeks to Modern Times.
- HIS 4150** **AS 3(3,0)**  
**History and Historians:** PR: C.I. A study of European and/or American historiography. May be repeated once for credit.



- HIS 4970** **AS 3**  
**Senior Thesis:** Original research paper available to advanced history majors, topics to be selected in consultation with a directing professor.
- HLP 4460** **ED 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.
- HMW 3200** **AS 3(3,0)**  
**Readings in Modern Hebrew Literature:** PR: 2 years of Hebrew or equivalent.
- HSA 3210** **HPA 3(3,0)**  
**Long Term Care Administration:** Current financing mechanisms and proposed solution, and the impact of government regulation or the operation of long-term care facilities.
- HSA 3122** **HPA 3(3,0)**  
**U.S. Health Care Systems:** PR: Major or minor in College of Health or C.I. A survey of the economic, social, and political aspects of the health care system in the United States.
- HSA 3170** **HPA 3(3,0)**  
**Health Care Finance:** PR: MRE 3000. Budgeting; resources for funding current and long-term assets; cost and cost behavior; prospective payment; DRGs as reimbursement base.
- HSA 4120** **HPA 3(3,0)**  
**Community and Public Health Services:** History and philosophy of public health, interphase of governmental, voluntary, and private health agencies; current community health problems, issues, and needs; social and economic factors.
- HSA 4121** **HPA 3(3,0)**  
**History and Future of Health Care:** Health care institutions; purposes of health agencies, organizations and allied health professionals; new trends in health care delivery. Designed for non-majors.
- HSA 4180** **HPA 3(3,0)**  
**Organization and Management for Health Agencies:** PR: STA 2014 and Major or Minor in College of Health or C.I. Organization and management of health agency organizations and management procedures.
- HSA 4193** **HPA 3(3,0)**  
**Health Data Processing:** Analysis and design of computerized systems for health data and health administration.
- HSA 4220** **(HPA 3(3,0))**  
**Long Term Patient Management:** Concepts and process of patient care planning and management in a long term care facility; individual and team roles of medicine, paramedical and supportive personnel, patient and family consideration; long term care facility coordinating.
- HSA 4502** **HPA 4(4,0)**  
**Risk Management Systems:** PR: C.I. Health Safety laws/rules; community inter-relationships; liability insurance types/contracts; malpractice.
- HSA 4700** **HPA 3(3,0)**  
**Health Sciences Research Methods:** Introduction to research design in the Health Sciences, including design, literature review, testing, analysis and conclusions.
- HSA 4852** **HPA 2(0,8)**  
**Risk Management Practicum:** PR: HSA 4424. Assignment to a selected health care facility serving in an administrative capacity under the director of Certified Risk Manager.
- HSA 5198** **HPA 3(3,0)**  
**Information Systems and Computer Applications in Medicine:** PR: Graduate standing or C.I. Overview of health information systems, with an emphasis on computer applications. Discussion of software and hardware requirements.
- HSC 2000** **HPA 2(2,0)**  
**Introduction to the Allied Health Professions:** A survey of allied health professions with regard to duties, responsibilities, education and training, ethics, and relationships with other health professionals. Satisfactory/Unsatisfactory grade.
- HSC 3110C** **HPA 3(2,2)**  
**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 3402C** **HPA 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 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 3640** **HPA 3(3,0)**  
**Health Law:** Principles of law as applied to the health field, with special reference to health practices.
- HSC 3930** **HPA 3(3,0)**  
**AIDS: A Human Concern:** Analysis of the AIDS epidemic. Topics include: epidemiology & immunology; basic facts, prevention; legal, economic, and ethical issues; psychosocial aspects; substance abuse; sexuality and decision-making.



<b>HSC 4243</b>	<b>HPA 3(3,0)</b>
<b>Analysis of Instruction in Health Professions:</b> Development of teaching aids, audiovisuals, learning packets. Course development, questioning strategies, evaluation of didactic and clinical performance.	
<b>HSC 4244</b>	<b>HPA 2(2,0)</b>
<b>Curriculum Planning in the Health Professions:</b> Curriculum design and approval process for Health Science program. Curriculum design for professional, patient, and consumer education.	
<b>HSC 4500</b>	<b>HPA 3(3,0)</b>
<b>Epidemiology:</b> A study of the distribution and determination of diseases and injuries in human population.	
<b>HSC 4550</b>	<b>HPA 3(3,0)</b>
<b>Pathophysiologic Mechanisms:</b> PR: ZOO 3733C and PCB 3703C, or C.I. A study of pathologic lesions and pathophysiologic mechanisms in causation and evolution of the various disease state.	
<b>HSC 4564</b>	<b>HPA 3(3,0)</b>
<b>Health Care Needs of the Elderly:</b> Overview of the physical and emotional needs of the elderly, including the institutional health care available.	
<b>HSC 4651</b>	<b>HPA 3(3,0)</b>
<b>Health Care Ethics:</b> A study of ethical issues in health care, including life-saving measures, rights to die, transplants, surrogate parenthood, privacy and confidentiality, and decision-making.	
<b>HSC 4910</b>	<b>HPA 3(3,0)</b>
<b>Fundamentals of Research for Health Science Professionals:</b> Concepts of developing a research protocol based on current theories and practices within the clinical area, including literature search, cost analysis, and grant preparation.	
<b>HSC 5595</b>	<b>HPA 3(3,0)</b>
<b>AIDS: A Human Concern:</b> 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.	
<b>HUM 2211</b>	<b>AS 3(3,0)</b>
<b>Western Humanities I:</b> Examples of the philosophy, religion, literature, music, and visual arts, from Ancient Greece through the Middle Ages; ideas that shaped our world.	
<b>HUM 2211H</b>	<b>AS 3(3,0)</b>
<b>Honors Western Humanities I:</b> Same as HUM 2211 with honors-level content.	
<b>HUM 2230</b>	<b>AS 3(3,0)</b>
<b>Western Humanities II:</b> PR: HUM 2211 or C.I. Continuation of HUM 221, from the Renaissance through the Modern World.	
<b>HUM 2230H</b>	<b>AS 3(3,0)</b>
<b>Honors Western Humanities II:</b> PR: HUM 2211 or C.I. Same as HUM 2230 with honors-level content.	
<b>HUM 3025</b>	<b>AS 3(3,0)</b>
<b>Critical Evaluation of the Arts:</b> An inter-disciplinary study of contemporary theory and practice in the criticism and interpretation of the arts.	
<b>HUM 3250</b>	<b>AS 3(3,0)</b>
<b>Contemporary Humanities:</b> Current trends in the arts and related developments in philosophy, science, and technology, focusing on the transition from modern to postmodern culture.	
<b>HUM 3401</b>	<b>AS 3(3,0)</b>
<b>Asian Humanities:</b> An interdisciplinary survey of the cultures of India, China, and Japan, concentrating on their traditional art, literature, religion, philosophy, and music.	
<b>HUM 3417</b>	<b>AS 3(3,0)</b>
<b>Hindu Thought and Culture:</b> 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.	
<b>HUM 3418</b>	<b>AS 3(3,0)</b>
<b>Islamic Thought and Culture:</b> A survey of the development of Islamic thought and culture, concentrating on religion, jurisprudence, philosophy, science and art.	
<b>HUM 3431</b>	<b>AS 3(3,0)</b>
<b>Ancient World: Greece:</b> History and culture of Greece from the Minoan-Mycenaean to the Hellenistic age, with emphasis on contributions in art, literature, and philosophy.	
<b>HUM 3432</b>	<b>AS 3(3,0)</b>
<b>Ancient World: Rome:</b> History and culture of Rome from the Etruscan Period to the dissolution of the empire, with emphasis on contributions in architecture, law, and literature.	
<b>HUM 3552</b>	<b>AS 3(3,0)</b>
<b>The Hebrew and Christian Heritage:</b> An examination of Hebrew and Christian documents in the larger cultural contexts of society and art.	
<b>HUM 4301</b>	<b>AS 3(3,0)</b>
<b>The Classical Ideal:</b> 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.	
<b>HUM 4302</b>	<b>AS 3(3,0)</b>
<b>The Romantic Ideal:</b> PR: HUM 2211 and HUM 2230 or C.I. The Romantic quest for identity with nature and the sublime in the arts of various times. Concerns feeling, imagination, subjectivity, creativity. Open to all Juniors and Seniors.	



- HUM 4303** **AS 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.
- HUN 2002** **HPA 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 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.
- IDH 1921** **AS 1(2,0)**  
**Honors Symposium I:** Readings, lectures and discussions covering aspects of scholarship, artistic, and other creative efforts.
- IDH 1922** **AS 1(2,0)**  
**Honors Symposium II:** Continuation of Honors Symposium I. Emphasis on understanding scholarly and creative efforts.
- INP 3004** **AS 3(3,0)**  
**Industrial Psychology:** PR: PSY 2013 and STA 2014. Analysis of the psychological principles underlying human behavior and performance in an industrial setting. Topics include selection, training, performance appraisal, job design, and employee motivation.
- INP 3102** **AS 3(3,0)**  
**Psychology Applied to Business and Industry:** PR: PSY 2013. Applications of principles of psychology to business and industrial settings. Designed for non-majors.
- INP 3803** **AS 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 3(0,10)**  
**Industrial/Organizational Field Work** PR: C.I. This course is offered as an opportunity for advanced undergraduate psychology majors to become involved in the application of I/O psychology to local organizations.
- INP 4313** **AS 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.
- INR 3002** **AS 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 4035** **AS 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 4102** **AS 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 3(3,0)**  
**American Defense Policy:** Study of the evolution of American defense policy since World War II, including consideration of the social and political costs involved and means of control.
- INR 4115** **AS 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 3(3,0)**  
**Contemporary International Politics of Asia:** Examinations of the foreign policies of major and secondary powers in Asia, with particular attention to China and Japan.
- INR 4225** **AS 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 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 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 liberations and coups.
- INR 4401** **AS 3(3,0)**  
**International Law I:** Introduction to the nature, solution, and sources of international law and such subareas as recognition of states and governments, expropriation, nationality, and aliens.



<b>INR 4402</b>	<b>AS 3(3,0)</b>
<b>International Law II:</b> PR: INR 4401 or C.I. Examination of various subareas of international law, including maritime law, laws of the sea and seabed, air law, outer space, neutrality, and laws of war.	
<b>INR 4404</b>	<b>AS 3(3,0)</b>
<b>Space Law:</b> Examination of the legal regime of outer space from both international and national perspectives, and the legal problems arising from human activity in space.	
<b>INR 4504</b>	<b>AS 3(3,0)</b>
<b>International Organizations:</b> The study of the structure and workings of international organizations of cooperation, including the UN, its affiliates, and various regional organizations.	
<b>ISM 3011</b>	<b>BA 3(3,0)</b>
<b>Management Information Systems:</b> PR: CGS 3000, MAN 3025 An introduction to planning, organization, use, and management of information systems in Business Organization.	
<b>ISM 4090</b>	<b>BA 3(3,0)</b>
<b>Seminar in Management Information Systems:</b> PR: ISM 4212: Course designed to address new developments in management information systems in a business environment, e.g. artificial intelligence, decision support systems, expert systems, and telecommunications.	
<b>ISM 4113</b>	<b>BA 3(3,0)</b>
<b>Information Systems Analysis and Design:</b> PR: ISM 4212. Introduction to the fundamentals of management information systems development, needs analysis and systems requirements.	
<b>ISM 4130</b>	<b>BS 3(3,0)</b>
<b>Implementing Information Systems:</b> PR: ISM 4113. Study of organizational information needs and systems for planning and control.	
<b>ISM 4212</b>	<b>BA 3(3,0)</b>
<b>Data Base Management Systems:</b> PR: completion of or concurrent enrollment in ISM 3011 and COP 3120. Course designed to help student understand how to build, manipulate, and manage files and data bases in a business environment.	
<b>ISM 5021</b>	<b>BA 3(3,0)</b>
<b>Introduction to Management Information Systems:</b> 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.	
<b>ISS 4155</b>	<b>AS 3(3,0)</b>
<b>Science Fiction and the Social Sciences:</b> A multi-media examination of note-worthy science fiction from the Social Science perspective.	
<b>ITA 1005</b>	<b>AS 1(1,0)</b>
<b>Italian Diction:</b> This course is especially designed for music and voice students, with an emphasis on musical terms, Italian songs, and opera libretti.	
<b>ITA 1120</b>	<b>AS 4(4,1)</b>
<b>Elementary Italian Language and Civilization I:</b> Designed to initiate the student to the major language skills: listening, speaking, reading, and writing, in addition to an introduction to Italian culture.	
<b>ITA 1121</b>	<b>AS 4(4,1)</b>
<b>Elementary Italian Language and Civilization II:</b> PR: ITA 1120 or equivalent. Continuation of ITA 1120.	
<b>ITA 1170</b>	<b>AS 8(16,10)</b>
<b>Elementary Italian Study Abroad:</b> Elementary Italian language and civilization taught in the native environment.	
<b>ITA 2200</b>	<b>AS 4(4,0)</b>
<b>Intermediate Italian Language and Civilization I:</b> PR: ITA 1121 or equivalent. Designed to continue development of language skills at intermediate level, plus a review of grammar, study of syntax, idiomatic expression, extensive readings, and further study of Italian culture.	
<b>ITA 2201</b>	<b>AS 3(3,0)</b>
<b>Intermediate Italian Language and Civilization II:</b> 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.	
<b>ITA 2210</b>	<b>AS 3(3,0)</b>
<b>Intensive Italian Conversation:</b> PR: One year of Italian or equivalent. Practical use of the language, leading toward fluency and correctness in speaking.	
<b>ITA 2270</b>	<b>AS 8(16,10)</b>
<b>Intermediate Italian Study Abroad:</b> PR: Elementary Italian. Intermediate Italian language and civilization taught in the native environment.	
<b>ITA 3240</b>	<b>AS 3(3,0)</b>
<b>Italian Conversation:</b> PR: ITA 2201 or equivalent. Development of skills in conversation and comprehension with an introduction to Italian culture.	
<b>ITA 3420</b>	<b>AS 3(3,0)</b>
<b>Italian Composition:</b> PR: ITA 2201 or equivalent. Development of skills in composition, with an introduction to Italian culture.	
<b>ITA 4500</b>	<b>AS 3(3,0)</b>
<b>Italian Civilization:</b> PR: ITA 2201. A historical approach to Italian civilization, with particular emphasis on art history.	



- ITW 3100** **AS 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 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.
- ITW 3373** **AS 3(3,0)**  
**The Modern Italian Short Story:** PR: ITA 2201. A study of the most representative modern Italian short stories.
- JOU 3004** **AS 3(3,0)**  
**History of American Journalism:** Development of mass media, leading innovators, and the media's role in the nation's history.
- JOU 3100** **AS 3(3,1)**  
**News Reporting:** PR: Grammar Proficiency Examination and departmental typing 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 3101** **AS 3(3,0)**  
**Advanced Reporting:** PR: Grammar Proficiency Examination and departmental typing examination and JOU 3100. Advanced information-gathering and development of newswriting skills.
- JOU 3201** **AS 3(3,0)**  
**Editing I:** PR: Grammar Proficiency Examination and JOU 3100. Editing copy, writing headlines, managing newsroom operations.
- JOU 3202** **AS 3(3,0)**  
**Editing II:** PR: Grammar Proficiency Examination and JOU 3200. Practical aspects of editing. Principles of design. Practice in editing and layout.
- JOU 4104** **AS 3(3,0)**  
**Public Affairs Reporting:** PR: Minimum grade of "C" in JOU 3100, Grammar Proficiency Examination, departmental typing exam, JOU 3101. Reporting on city, county and state government.
- JOU 4300** **AS 3(3,0)**  
**Feature Writing:** PR: Grammar Proficiency Examination, Typing Examination, and a minimum grade of "C" in JOU 3100 or PUR 3100. Writing feature articles for newspapers and magazines.
- JOU 4302** **AS 3(1,2)**  
**Editorial and Column Writing:** PR: Grammar Proficiency Examination, departmental typing exam, and a minimum grade of "C" in JOU 3100. Building the editorial page, backgrounding and interpreting the news.
- JOU 4306** **AS 3(1,2)**  
**Critical Writing:** PR: Grammar Proficiency Examination, departmental typing exam, and a minimum grade of "C" in JOU 3100. Writing reviews of movies, plays, television programs, concerts, books, and other cultural works.
- JOU 4310** **AS 3(3,0)**  
**Freelance Writing:** PR: Grammar Proficiency Examination, departmental typing exam, and evidence of satisfactory writing skills. A study of the techniques and procedures of freelance writing, including the preparation of several manuscripts.
- JST 3100** **AS 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 Pseudepigrapha, the Mishnah, and the Talmud, Medieval Hebrew Poetry and Prose.
- JST 3401** **AS 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 3(3,0)**  
**The Jewish People II:** The life and history of the Jews in the medieval and modern worlds.
- JST 3550** **AS 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 3751** **AS 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 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.
- JST 3820** **AS 3(3,0)**  
**Modern Hebrew Culture: The Development 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.
- LAE 3335** **ED 4(3,2)**  
**English Instructional Analysis:** PR: EDG 4321. Course objectives for a school curriculum and methods and materials which have special application for teaching English.



- LAE 3414** **Literature for Children:** PR: Phase I or C.I. General survey of books and materials; criteria for analysis and evaluation; types of books available considered in terms of interests, needs, and abilities of children. **ED 3(3,0)**
- LAE 4314** **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. **ED 3(3,0)**
- LAE 4342** **Teaching Language and Composition:** PR: EDG 4321. Techniques and methods in teaching of dialects, semantics, the various grammars. A survey of composition and rhetorical methods of selected authors. **ED 3(3,0)**
- LAE 5319** **Methods of Elementary School Language Arts:** Principles, procedures, organization and current practices in reading, writing, listening and talking. **ED 3(3,0)**
- LAE 5367** **English Composition and Literature for Teachers of Advanced Placement:** **AS 3(3,0)**
- LAE 5372** **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. **AS 3(2,1)**
- LAE 5415** **Children's Literature in Elementary Education:** Survey of children's literature: criteria for selection according to literary elements and child development needs. Methods for presenting to children; integrating literature with elementary curricula. **ED 3(3,0)**
- LAH 3130** **Latin American History I:** PR: EUH 2000 and 2001 or C.I. The Colonial period. **AS 3(3,0)**
- LAH 3200** **Latin American History II:** PR: EUH 2000 and 2001 or C.I. The National period. **AS 3(3,0)**
- LAH 3400** **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. **AS 3(3,0)**
- LAH 3470** **History of the Caribbean:** PR: EUH 2000 and 2001 or C.I. History of Cuba, Puerto Rico, Dominican Republic, and Haiti from Pre-Colombian times to the present. **AS 3(3,0)**
- LAH 5713** **Colloquium in U.S.-Latin American Relations:** PR: Senior Standing and C.I. The course will analyze U.S.-Latin American relations from an historical perspective. It will be presented through readings and discussion of selected materials. **AS 3(3,0)**
- LAT 1120** **Elementary Latin Languages and Civilization I:** Designed to develop Latin language skills at the elementary level: listening, speaking, reading, and writing, in addition to an introduction to Roman culture. **AS 4(4,1)**
- LAT 1120H** **Honors Elementary Latin & Civilization I:** Same as LAT 1120 with honors-level content. **AS 4(4,1)**
- LAT 1121** **Elementary Latin Language and Civilization II:** PR: LAT 1120 or equivalent. Continuation of LAT 1120. **AS 4(4,1)**
- LAT 1121H** **Honors Elementary Latin & Civilization II:** PR: LAT 1120H or equivalent. Same as LAT 1121 with honors-level content. **AS 4(4,1)**
- LIN 3010** **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. **AS 3(3,0)**
- LIN 3640** **Psychology of Oral Communication:** Psychological principles involved in the communicative process, with application to individuals and groups. **HPA 3(3,0)**
- LIN 4100** **History of the English Language:** PR: ENC 1102 and Sophomore standing. Study of the English language and its development from Anglo-Saxon to Modern. **AS 3(3,0)**
- LIN 4202** **Phonetics:** PR: ENC 1102. Study of the sounds of language from an articulatory perspective. **AS 3(3,0)**
- LIN 4341** **Modern English Grammar:** PR: ENC 1102 and Sophomore standing. Emphasis upon the analysis and comparison of traditional, structural, and transformational grammar. **AS 3(3,0)**
- LIN 4440** **Sounds and Forms of Language:** This course examines the sound systems (phonology) and word structure (morphology) of natural languages as two basic areas of linguistics. **AS 3(3,0)**
- LIN 4612** **Black English:** PR: ENC 1102 and Sophomore standing. A study of the phonology, morphology, and syntax of Black English. Provides an understanding of the implications of Black English in contemporary society. **AS 3(3,0)**



- LIN 4660** **AS 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, language as characterization, cohesion, sentence and discourse structure.
- LIN 4710** **HPA 3(3,0)**  
**Foundations of Language:** This course is designed to explore contributions to language from disciplines of Biology, Neurology, Psychology, and Sociology.
- LIN 4710L** **HPA 1(0,2)**  
**Foundations of Language:** Students will have practical experience in analyzing children's language samples.
- LIN 4801** **AS 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 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 5805** **AS 3(3,0)**  
**Language and Meaning:** An examination of how language conveys meaning and the implications about the nature and structure of the mind.
- LIS 3016** **ED 3(3,0)**  
**Introduction to Media Services:** Role and scope of media center. Major concepts, standards, trends, and media specialist functions emphasized.
- LIS 3412** **ED 3(3,0)**  
**Media for Children and Young Adults:** Survey of media center materials for children and young adults; analysis and evaluation of print and non-print materials K-12.
- LIS 4310** **ED 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 4422** **ED 3(3,0)**  
**Administration and Operation of the Media Center:** Administrative principles applied to developing resources and services, including planning, decision making, personnel and financial management, evaluation, acquisition, processing, maintenance, and inventory.
- LIS 4453** **ED 3(3,0)**  
**School Media Services:** PR: C.I. Planning activities and programs to assist teachers and students in utilizing the Media Center. Includes skills development, R/L/V guidance, promotion and inservice techniques. Lab TBA.
- LIS 4510** **ED 3(3,0)**  
**Development of Media Collections:** PR: C.I. Selection of policy and collection building of book and non-book media. Use of reviewing aids and media sources.
- LIS 4540** **ED 3(3,0)**  
**Interaction Techniques in Media Services:** PR: C.I. Interpretation skills and communication processes applied to working with administrators, teachers, parents, and students in the media program.
- LIS 4601** **ED 3(3,0)**  
**Reference Sources and Services:** PR: C.I. Development of skills in locating information and providing reference services.
- LIS 4731** **ED 3(3,0)**  
**Organization of Media and Information:** PR: C.I. Principles of informational science and bibliography. Methods of organizing and non-print media, with instruction in cataloging and classification using standard bibliographic tools.
- LIS 5262** **ED 3(3,0)**  
**Computer Applications in Instructional Technology:** Emphasis on the applications of the computer for the media specialist and instructional technologist.
- LIT 2110** **AS 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 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 3(3,0)**  
**World Literature II—Honors:** Same as LIT 2120, with honors-level content.
- LIT 3000** **AS 3(3,0)**  
**Introduction to Literary Interpretation:** PR: ENC 1102. Interpretation of fiction, drama, verse: conflict, characterization, point of view, rhetorical and poetic devices, figurative language, verse forms; application of critical approaches to selected works.
- LIT 3082** **AS 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 3188** **AS 3(3,0)**  
**Canadian and Commonwealth Literature:** Fiction, poetry, and drama written in English in Canada and other Commonwealth nations including Australia and Caribbean and African nations with an English-speaking tradition.
- LIT 3313** **AS 3(3,0)**  
**Science Fiction:** PR: ENC 1102. An investigation of science fiction as a literary form, together with selected readings.
- LIT 3383** **AS 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 3911H** **AS 1(1,0)**  
**Research Methods — Honors:** PR: Honors Student Status or consent of Honors coordinator. Introduction to scholarly and practical research in literature and writing.
- LIT 4303** **AS 3(3,0)**  
**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 4937H** **AS 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 4094** **AS 3(3,0)**  
**Modern Drama As Literature:** A study of important plays, playwrights, themes, movements, and styles in modern American, British, and European drama.
- LIT 4312** **AS 3(3,0)**  
**Fantasy:** PR: ENC 1102. A survey of the literature of fantasy, with emphasis on such figures as C.S. Lewis.
- LIT 4354** **AS 3(3,0)**  
**Ethnic Literature in America:** Contributions of linguistic and ethnic groups of non-English origin to the literature of the United States.
- LIT 4374** **AS 3(3,0)**  
**Literature of the Bible:** PR: ENC 1102 or LIT 3000 or C.I. Literary forms in the Bible — narrative, poetic, and dramatic — and their reflection in modern literature.
- LIT 4433** **AS 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 5039** **AS 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 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.
- LIT 5309** **AS 3(3,0)**  
**Media and Popular Literature:** PR: Senior standing or C.I. Study of the literary content of contemporary media and of popular fiction. Application to classroom teaching.
- LIT 5366** **AS 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 5367** **AS 3(3,0)**  
**The Victorian Age:** PR: Senior standing or C.I. Study of poets and essayists from 1837 to 1900, including Tennyson, the Brownings, Arnold, Hopkins, Carlyle, Mill; emphasizing Dickens, George Eliot, the Brontes, and Hardy.
- MAA 4226** **AS 4(4,0)**  
**Advanced Calculus I:** PR: MHF 2300 and MAC 3313 or C.I. Limits, sequences, and continuity; differentiation and integration. Derivatives of integrals. Infinite series and convergence. The Balzano-Weierstrass Theorem and the Heine-Borel Theorem. Extensions in Euclidian n-space.
- MAA 4227** **AS 3(3,0)**  
**Advanced Calculus II:** PR: MAA 4226 or C.I. Continuation of MAA 4226.
- MAA 5210** **AS 4(4,0)**  
**Topics in Advanced Calculus:** PR: MAC 3313 or C.I. Selected topics in multivariable calculus, including limits, continuity, Euler's theorem, the Jacobian, and double series; extension of single variable concepts, including uniform convergence and improper integrals.
- MAA 5405** **AS 3(3,0)**  
**Complex Variables:** PR: MAC 3313 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.
- MAC 1104** **AS 3(3,0)**  
**College Algebra:** PR: Intermediate algebra or 2 years of high school algebra or C.I. Inequalities. High degree polynomials. Graphs, rational, logarithmic, and exponential functions. Systems of



equations, matrices, determinants, induction. This course prepares students for higher-level mathematics courses.

**MAC 1114**

**AS 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.

**MAC 3233**

**AS 3(3,0)**

**Concepts of Calculus:** PR: MAC 1104 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 3253 or MAC 3311.

**MAC 3253**

**AS 3(3,0)**

**Applied Calculus I:** PR: MAC 1104 and MAC 1114 or C.I. Differential and integral calculus. An introduction to differential equations and Laplace Transforms. Applications to engineering technology. Not open to students with credit in MAC 3233 or MAC 3311.

**MAC 3254**

**AS 3(3,0)**

**Applied Calculus II:** PR: MAC 3253 or C.I. Continuation of MAC 3253.

**MAC 3311**

**AS 4(4,0)**

**Calculus with Analytic Geometry I:** PR: MAC 1104 and MAC 1114 (College Algebra and Trigonometry) 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.

**MAC 3311H**

**AS 4(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.

**MAC 3312**

**AS 4(4,0)**

**Calculus with Analytic Geometry II:** PR: MAC 3311 or C.I. Continuation of MAC 3311.

**MAC 3312H**

**AS 4(4,0)**

**Calculus with Analytic Geometry II (Honors):** Continuation of MAC 3311H.

**MAC 3313**

**AS 4(4,0)**

**Calculus with Analytic Geometry III:** PR: MAC 3312 or C.I. Continuation of MAC 3312.

**MAC 3313H**

**AS 4(4,0)**

**Calculus with Analytic Geometry III (Honors):** Continuation of MAC 3312H.

**MAD 4203**

**AS 4(4,0)**

**Combinatorics and Graph Theory:** PR: MAC 3312 and STA 3023. Counting principles, inclusion/exclusion principle, recurrence relations, generating functions, properties of graphs and digraphs, trees, path problems, coloring planarity, connectiveness matchings and coverings, applications.

**MAD 5205**

**AS 3(3,0)**

**Combinatorics and Graph Theory II:** PR: MAD 4203. Polya's theory of counting, Latin squares and rectangles, block designs, coding theory, networks, invariants and extremal graph theory, Ramsey theory, probabilistic methods, hypergraphs, applications.

**MAE 2XXX**

**ED 4(3,1)**

**Elementary School Mathematics:** PR: MAC 1104 or MGF 120. 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 3330**

**ED 4(3,2)**

**Mathematics Instructional Analysis:** PR: EDG 4321. Study of course objectives for the high school curriculum and survey of methods and materials which have special application for teaching mathematics.

**MAE 4326**

**ED 4(3,1)**

**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 4634**

**ED 3(2,1)**

**Programs in Teaching of Mathematics:** PR: CI. A consideration of special programs, strategies, and materials. Emphasis on individual needs of students.

**MAE 5318**

**ED 3(3,0)**

**Current Methods in Elementary School Mathematics:** PR: Regular Certificate or C.I. Strategies of instruction of computation and concepts of number, geometry, and measurement; instructional materials. (Meets Elementary Education certification requirements.)

**MAE 5325**

**ED 3(3,0)**

**Teaching Mathematics in the Middle/Junior High School:** PR: 12 s.h. of mathematics, including at least College Algebra. Consideration of the curriculum and instructional techniques appropriate for students in Middle/Junior High School.



<b>MAE 5356</b>	<b>ED 3(3,0)</b>
<b>Teaching General Mathematics in the Secondary School:</b> 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.	
<b>MAE 5637</b>	<b>ED 3(2,1)</b>
<b>Laboratory Programs in Mathematics:</b> PR: Regular Certificate or C.I. Design and development of special materials and projects for mathematics independent study. Emphasis on teaching and applying the metric system. (Meets certification requirements for secondary mathematics.)	
<b>MAN 3025</b>	<b>BA 3(3,0)</b>
<b>Management of Organizations:</b> PR: Junior standing, ACG 2071 or 3023, ECO 2023, ECO 2013. Introduction to the theory and practice of managing formal organizations, including planning, organization theory, human behavior and control.	
<b>MAN 3301</b>	<b>BA 3(3,0)</b>
<b>Personnel Management:</b> PR: Junior standing, MAN 3025 or C.I. Systematic analysis of personnel functions in organizations.	
<b>MAN 3504</b>	<b>BA 3(3,0)</b>
<b>Production/Operations Management:</b> PR: Junior standing, STA 3023. Introduction to the management of systems for the creation, distribution, and maintenance of goods and services required for modern society.	
<b>MAN 4029</b>	<b>BA 3(3,0)</b>
<b>Service Organization Management:</b> PR: MAN 3025 and MAN 3504. Study of the special characteristics, problems, and methods for managing service-oriented organizations.	
<b>MAN 4101</b>	<b>BA 3(3,0)</b>
<b>Human Relations in Management:</b> PR: MAN 3025. The study of individual, interpersonal, group, and intergroup problems in business organizations through the use of cases and experimental exercises.	
<b>MAN 4129 (pending)</b>	<b>BA 3(3,0)</b>
<b>Managerial Skills in Organizations:</b> PR: MAN 4240. The transference of management theories into practice. This course requires active student involvement in the development and practice of skills necessary to be a successful manager.	
<b>MAN 4240</b>	<b>BA 3(3,0)</b>
<b>Organizations: Theory and Behavior:</b> PR: MAN 3025. A course providing a micro/macro approach to the study of organizations by integrating organizational theory and organizational behavioral science concepts.	
<b>MAN 4310</b>	<b>BA 3(3,0)</b>
<b>Personnel Management Issues:</b> PR: Junior standing, MAN 3301. An application-oriented course to give students in the area experiences generally reserved for practitioners in the field of personnel and labor relations.	
<b>MAN 4350</b>	<b>BA 3(3,0)</b>
<b>Training and Development:</b> PR: MAN 3301. This course focuses on training and development activities as performed by organizational specialists. Theory, issues, practices and problems are discussed.	
<b>MAN 4401</b>	<b>BA 3(3,0)</b>
<b>Labor Relations Management:</b> 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.	
<b>MAN 4521</b>	<b>BA 3(3,0)</b>
<b>Production Planning and Control:</b> PR: MAN 3504. In depth study on long-range, intermediate-range and short-range planning and control methods as applied to a manufacturing organization.	
<b>MAN 4572</b>	<b>BA 3(3,0)</b>
<b>Procurement Management:</b> PR: MAN 3025 and MAN 3504. 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.	
<b>MAN 4595</b>	<b>BA 3(3,0)</b>
<b>Automated Materials Planning:</b> PR: MAN 3504. Application of production planning and control theories and Management Informations Systems concepts to an integrated, computerized, real-world production environment.	
<b>MAN 4600</b>	<b>BA 3(3,0)</b>
<b>International Management:</b> PR: GEB 4351 The course examines issues involved in multinational management of business firms, with special emphasis on comparative management.	
<b>MAN 4701</b>	<b>BA 3(3,0)</b>
<b>Business and Society:</b> PR: MAR 3023, FIN 3403, MAN 3025. A study of the interrelationship between the institution of business and other institutions of our society.	
<b>MAN 4720</b>	<b>BA 3(3,0)</b>
<b>Business Policies:</b> PR: Senior standing, completion of core. The student is expected to utilize the subject matter in the business core and his major in analyzing business problems.	
<b>MAN 4854</b>	<b>BA 3(3,0)</b>
<b>Management Science:</b> PR: MAN 3025 and MAN 3504 and ECO 3411 and CGS 3000. Study of the application of quantitative models and use of simulation in organizational systems.	
<b>MAN 5050</b>	<b>BA 2(2,0)</b>
<b>Management Concepts:</b> PR: Acceptance in MBA program. Theory and practice of managing organizations to include planning, organizational theory, human behavior, and control.	



<b>MAN 5501</b>	<b>BA 2(2,0)</b>
<b>Introduction to Production/Operations Management:</b> PR: Acceptance into the graduate program and ECO 5415 or equivalent. Introduction to the fundamental concepts, processes, and institutions involved in the production of goods and services required by modern society.	
<b>MAP 3302</b>	<b>AS 3(3,0)</b>
<b>Differential Equations:</b> PR: MAC 3313 or C.I. Methods of solution for first order equations. Linear equations. Laplace transforms. Series solutions. Selected applications.	
<b>MAP 3401</b>	<b>EN 3(3,0)</b>
<b>Problem Analysis:</b> PR: MAC 3253 and COP 1200 or equivalent. Application of numerical methods techniques to selected problems in Engineering Technology.	
<b>MAP 4103</b>	<b>AS 3(3,0)</b>
<b>Mathematical Modeling I:</b> An overview of model construction. Model fitting, optimization models, empirical construction and modeling dynamic behavior. Calculus and ordinary differential equations required.	
<b>MAP 4153</b>	<b>AS 3(3,0)</b>
<b>Vector and Tensor Analysis:</b> PR: MAC 3313 or C.I. Vector calculus. The theorems of Green, Gauss and Stokes. Introduction to tensors. Application in engineering and physical sciences.	
<b>MAP 4307</b>	<b>AS 3(3,0)</b>
<b>Applications of Complex Variables (Advanced Engineering Math Series):</b> PR: MAP 3302, analytic functions and complex integration. Residue integration, Taylor and Laurent series, conformal mapping and the application of complex analysis to Potential Theory.	
<b>MAP 4308</b>	<b>AS 3(3,0)</b>
<b>Fourier Methods (Advanced Engineering Math Series):</b> PR: MAP 3302, Fourier series, integrals and transforms. Partial differential equations or vibrating membranes and heat flow. No credit for mathematics majors.	
<b>MAP 4363</b>	<b>AS 3(3,0)</b>
<b>Applied Boundary Value Problems I:</b> PR: MAP 3302 or C.I. Systems of linear equations. Fourier series. The eigenvalue problem of Sturm-Liouville. The method of Green's functions.	
<b>MAP 4364</b>	<b>AS 3(3,0)</b>
<b>Applied Boundary Value Problems II:</b> PR: MAP 4363 or C.I. Legendre polynomials and Bessel functions. The theory of Sturm-Liouville. Separation of variables. Applications involving the wave equation, heat equation and equation of Laplace.	
<b>MAP 4411</b>	<b>AS 3(3,0)</b>
<b>Laplace Transforms:</b> PR: MAP 3302 or C.I. Laplace and Z transforms; solutions of ordinary and partial differential equations; application to circuit analysis and difference equations.	
<b>MAP 5396</b>	<b>AS 3(3,0)</b>
<b>Splines and Data Fitting:</b> PR: MAS 3103, MAS 3113, MAP 3302, 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.	
<b>MAP 5407</b>	<b>AS 3(3,0)</b>
<b>Applied Mathematics I:</b> PR: MAP 3302 or C.I. Fourier series, calculus of variations, Hamilton's principle, eigenvalues and stationary points, Rayleigh-Ritz method, partial differential equations, and approximation methods. (May be taken after Applied Math II).	
<b>MAP 5426</b>	<b>AS 3(3,0)</b>
<b>Special Functions:</b> PR: MAP 3302 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.	
<b>MAR 3023</b>	<b>BA 3(3,0)</b>
<b>Marketing:</b> PR: Junior standing. Study of functions, institutions, and basic problems in marketing of goods and services in our domestic economy and abroad.	
<b>MAR 3323</b>	<b>BA 3(3,0)</b>
<b>Advertising and Sales Promotion Management:</b> PR: MAR 3023. Analysis of the selection, use, and evaluation of advertising and sales promotion strategies and techniques directed at consumers, businesses, and channels of distribution.	
<b>MAR 3403</b>	<b>BA 3(3,0)</b>
<b>Sales Management:</b> PR: MAR 3023. An overview of the sales management process. Emphasis on sales program formulation and implementation.	
<b>MAR 3503</b>	<b>BA 3(3,0)</b>
<b>Consumer Behavior:</b> PR: MAR 3023. Analysis of the buying process, the psychological, social, and economic influences affecting consumer choice.	
<b>MAR 3613</b>	<b>BA 3(3,0)</b>
<b>Marketing Research:</b> PR: MAR 3023, ECO 3411. Study of research procedures and techniques for problem solving in marketing. Concepts are explored, and the incorporation of information resources into the management function is demonstrated.	
<b>MAR 3823</b>	<b>BA 3(3,0)</b>
<b>Marketing Management:</b> PR: MAR 3023 and any one additional MAR course or C.I. Operational framework exploring the analysis, planning, and control activities of marketing.	



- MAR 4071** **Contemporary Marketing Issues:** PR: Senior standing, marketing major, C.I. Cultural, social, political, economic, and competitive developments and their effects upon marketing activities. **BA 3(3,0)**
- MAR 4156** **International Marketing:** PR: MAR 3023, GEB 4351, or C.I. Investigates strategy, policy and the variables in international marketing decisions. **BA 3(3,0)**
- MAR 4203** **Marketing Channel Systems:** PR: MAR 3023. Marketing functions and relationships within marketing channel systems, with primary focus on the needs for interorganizational cooperation and coordination between channel organizations. **BA 3(3,0)**
- MAR 4231** **Retailing Management:** PR: MAR 3023. Analysis of the field of retailing. Emphasis on planning for profit through management, inventory control, etc. **BA 3(3,0)**
- MAR 4453** **Industrial Marketing:** PR: MAR 3023. Marketing of goods and services between organizations, including commercial, governmental, institutional, and not-for-profit. Emphasis on the development, pricing, promotion, and distribution of industrial products. **BA 3(3,0)**
- MAR 4803** **Marketing Strategy:** PR: Senior standing and marketing courses completed or C.I. Marketing problems are explored, with emphasis on strategy formulation and integrative marketing decision-making. **BA 3(3,0)**
- MAR 4831** **Product Management:** PR: MAR 3023. Components of product management, including analysis, strategy formulation and implementation are examined. **BA 3(3,0)**
- MAR 4841** **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 service strategies. **BA 3(3,0)**
- MAR 4941** **Internship:** PR: Permission of Dept. Chair. Provides qualified undergraduate marketing majors with educational experience not gained in class setting. **BA 3-6(3-6,0)**
- MAR 5055** **Marketing Concepts:** PR: Acceptance into the graduate program. Study of functions, institutions, and basic marketing of goods in the U.S. economy. **BA 3(3,0)**
- MAR 5941** **Small Business Consulting:** PR: ACG 2001, 2011, ECO 2023, 2013, MAN 3025, MAR 3023, or graduate status. 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. **BA 3(3,0)**
- MAS 3105** **Elementary Linear and Matrix Algebra:** PR: MAC 3312 or C.I. Matrices, determinants, vector spaces in  $R^n$ , linear independence, basis, solutions of systems, range of linear transformations, eigenvectors, Jordan Form, matrix functions, quadratic forms. **AS 4(4,0)**
- MAS 3106** **Linear Algebra:** PR: MHF 2300 and MAS 3105 or C.I. Abstract vector spaces, linear transformations, isomorphisms, projections, innerproducts, the spectral theorem, Jordan Canonical Form. (Only offered spring semester). **AS 4(4,0)**
- MAS 3203** **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. **AS 3(3,0)**
- MAS 4146** **Linear Systems (Advanced Engineering Math Series):** PR: MAP 3302, systems, eigenvalue problems and diagonalization. Vector calculus, line/surface integrals and integral theorems. No credit for mathematics majors. **AS 3(3,0)**
- MAS 4301** **Algebraic Structures:** PR: MHF 2300 or C.I. An introduction to groups, rings and fields. **AS 3(3,0)**
- MCB 3013C** **General Microbiology:** PR: A college course in chemistry and in basic biological sciences. Fundamentals of microbiology, including microbial structure and function, metabolism, growth, genetics, virology environmental control, ecology, pathogenicity; and laboratory techniques. **HPA 5(3,4)**
- MCB 3203** **Pathogenic Microbiology:** PR: MCB 3013C or C.I. Microorganisms producing disease in man and other animals; means of transmission; protection against disease. **HPA 3(3,0)**
- MCB 3203L** **Pathogenic Microbiology Lab:** CR: MCB 3203. Laboratory investigation of pathogenic microorganisms, with emphasis on isolation and identification of pathogenic microorganisms. **HPA 1(0,3)**
- MCB 4114C** **Microbial Systematics and Diagnosis:** PR: MCB 3013C, MCB 3203. Microbial classification, rules of taxonomy, and nomenclature. Techniques for identifying non-pathogens and bacteria pathogenic to man. **HPA 4(3,3)**



- MCB 4404** **HPA 3(3,0)**  
**Microbial Metabolism:** PR: MCB 3013C and BCH 4054. Interrelationship between cellular structure function and genetic traits in microorganisms. The interaction between microorganisms and their nutritional environment.
- MCB 4603C** **HPA 3(3,0)**  
**Environmental Microbiology:** PR: PCB 3043 and MCB 3013C. Interrelationships between the biological activities of microorganisms and their terrestrial and aquatic environments.
- MCB 5205** **HPA 3(3,0)**  
**Infectious Process:** PR: MCB 3013C or C.I. Discussion of current theories of the infectious process and the response of host cells and tissue to infection.
- MCB 5505C** **HPA 3(2,3)**  
**Virology:** PR: MCB 3013C and BCH 4054. Nature of viruses and Rickettsiae, including their structure, propagation, isolation, and identification.
- MET 3101** **EN 3(3,0)**  
**Fundamentals of Meteorology and Climatology:** PR: MAC 1104 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 1203** **AS 3(3,0)**  
**Finite Mathematics:** PR: Intermediate algebra or 2 years of high school algebra or C.I. Introduction to logical structure, sets, probability, arrays, games. This course is intended for students who are not planning to take further courses in mathematics.
- MHF 2300** **AS 3(3,0)**  
**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 3104** **AS 3(3,0)**  
**Boolean Algebra:** PR: MAC 3312 or C.I. Axiomatic development of Boolean algebra. The algebras of sets, logic and circuits as Boolean algebras.
- MHF 4404** **AS 3(3,0)**  
**History of Mathematics:** PR: MAC 3312 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.
- MIS 1031** **US 2(2,1)**  
**Basic Military Science:** Organization of the Army and ROTC. Career opportunities, significance of military courtesy, discipline, customs, and traditions. Analysis of weapons and equipment of the U.S. Army.
- MIS 1400** **US 2(2,1)**  
**Fundamentals of Leadership Development:** Development of leadership abilities, including squad movement techniques. Fundamentals of Land Nav will be discussed.
- MIS 2120** **US 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** **US 2(2,1)**  
**Leadership Development - II:** Development of leadership abilities. Includes first aid training, communications, the threat, offensive/defensive operations, patrolling, and troop leading procedures.
- MIS 3301** **US 4(4,1)**  
**The Small Unit Leader:** Analysis of the leader's role in directing and coordinating efforts of small units in tactical operations. Includes land navigation, weapon systems, communications, defensive/offensive operations and patrolling.
- MIS 3410** **US 4(4,1)**  
**Leadership Responsibilities:** A description 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** **US 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** **US 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 3220** **HPA 2(2,0)**  
**Techniques in Clinical Microscopy:** PR: Admission to the professional phase of the MLS program or C.I. Analysis of human urine and other body specimens, chemically and microscopically; interpretation of abnormal results and their correlation to disease included.
- MLS 3220L** **HPA 1(0,3)**  
**Clinical Microscopy Lab:** Analysis of body fluids both chemically and microscopically with special emphasis on correlation to disease states.
- MLS 3305** **HPA 4(2,6)**  
**Hematology:** PR: Admission to the professional phase of the MLS program or C.I. Diagnostic procedures and morphologic interpretation; correlation of this data to disease.



- MLS 4334C** **HPA 2(1,3)**  
**Hemostasis:** PR: Admission to the professional phase of the MLS program or C.I. Study of the hemostasis mechanisms; diagnostic procedures and correlation of data to pathological conditions.
- MLS 4420C** **HPA 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 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** **HPA 4(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.
- MLS 4506C** **HPA 2(1,3)**  
**Immunodiagnosics:** PR: PCB 3233. Theory and application of clinical serologic and immunologic diagnostic testing, stressing the utilization of monoclonal technology.
- MLS 4550** **HPA 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 4620** **4(4,0)**  
**Concepts and Applications in Clinical Chemistry:** Overview of clinical chemistry theory and principles for the practicing technologist to include instrumentation, protein chemistry, enzymology, and organ system physiology.
- MLS 4625** **HPA 4(4,0)**  
**Advanced Clinical Chemistry I:** PR: Admission to the professional phase of the MLS program or C.I. Theory and practice in clinical chemistry techniques; carbohydrates, protein, electrophoresis, enzymes.
- MLS 4625L** **HPA 1(0,3)**  
**Advanced Clinical Chemistry I Lab:** Practice in laboratory techniques involving spectrophotometry, ISE, and flame enzyme methodology.
- MLS 4627L** **1(0,3)**  
**Advanced Clinical Chemistry II Lab:** Laboratory analysis of lipids, cholesterol, enzymes, bilirubins and overview electrophoretic techniques.
- MLS 4630** **HPA 4(4,0)**  
**Advanced Clinical Chemistry II:** Physiology and Biochemistry of proteins, enzymes, lipids, liver function, hormones, fetal monitoring, toxicology and therapeutic drug monitoring.
- MLS 4830C** **HPA 4(0,13)**  
**Clinical Practice I:** PR: Admission to the professional phase of MLS program or rotation in one or more of the following areas: Hematology, Chemistry, Microbiology, Blood Bank, Serology-Coagulation, Clinical Microscopy, Nuclear Medicine.
- MLS 4831C** **HPA 4(0,13)**  
**Clinical Practice II:** PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4830C.
- MLS 4832C** **HPA 4(0,13)**  
**Clinical Practice III:** PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4831C.
- MLS 4833C** **HPA 4(0,13)**  
**Clinical Practice IV:** PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4832C.
- MLS 4834C** **HPA 4(0,13)**  
**Clinical Practice V:** PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4833C.
- MLS 5512** **HPA 3(3,0)**  
**Clinical Immunology:** PR: PCB 3233, MLS 4511 or C.I. Advanced theory and application of immunologic diagnostic testing, stressing the utilization of monoclonal technology.
- MMC 4200** **AS 3(3,0)**  
**Mass Communication Law:** The legal rights and responsibilities of the mass media.
- MMC 4602** **AS 3(3,0)**  
**Contemporary Media Issues:** Relationships between the mass media and society; examination of social and ethical issues and responsibilities of the media, including the media's relationship with government.
- MMC 4700** **AS 3(3,0)**  
**Mass Media and Popular Culture:** An impact of mass media upon American culture past to present.
- MMC 4945** **AS 1-8(0,1-8)**  
**Communication Internship:** PR: C.I. Internship in radio, television, film, journalism, public relations, advertising and speech involving practicum at selected communication organizations for one term.



- MRE 3000** **HPA 4(4,0)**  
**Introduction to Medical Records:** PR: Acceptance into upper-division limited access MRA program. Accrediting/approving agencies; POMR; release of information; record analysis.
- MRE 3110** **HPA 5(5,0)**  
**Medical Record Organization and Management:** PR: MRE 3000. Nomenclature/classification systems; health/vital statistics; computer abstracting; MRAs role in hospital/medical staff organization; accrediting/approving agencies; policy/procedure manuals; job descriptions; indexing.
- MRE 3800** **HPA 2(0,4)**  
**Directed Practice I:** PR: Acceptance into upper-division limited access MRA program. Interdepartmental experience and introduction to medical record departments in selected health care facilities.
- MRE 3810** **HPA 2(0,4)**  
**Directed Practice II:** PR: MRE 3800, HSC 3640, HSC 3531. Quantitative and qualitative analysis; MPI; release of information; filing; admission/discharge processing performed in a health care facility.
- MRE 4202** **HPA 5(3,4)**  
**Coding Procedures:** PR: MRE 3432, HSC 3531, or C.I. Principles and mechanics of coding systems for health information retrieval, DRGs.
- MRE 4203** **HPA 3(3,0)**  
**Coding Procedures II:** PR: MRE 4202 or C.I. Continuation of MRE 4202; HCPCS-CPT.
- MRE 4304** **HPA 2(2,0)**  
**Medical Record Department Management:** PR: MRE 4500; MRE 4312. Analysis of management functions in health care setting; in-service education; equipment demonstrations; problem-solving techniques.
- MRE 4312** **HPA 4(3,2)**  
**Analysis of Medical Record Department Operations:** PR: MRE 3110; MAN 3025; MAN 3301. Personnel administration; budgeting; forms analysis, design and control; work distribution and simplification; other evaluation techniques. Principles of word processing and medical transcription.
- MRE 4400** **HPA 4(3,3)**  
**Health Records and Standards:** PR: MRE 3110. Medical record standards and procedures for long-term care; ambulatory care; home health care; HMOs and psychiatric facilities. Principles of consulting. Labs and field trips.
- MRE 4420** **HPA 2(2,0)**  
**Health Legislation:** PR: MRE 4500. Risk management, certificate of need; legislative update for utilization review and quality assurance; new health legislation.
- MRE 4500** **HPA 4(4,0)**  
**Quality Assessment:** PR: MRE 3110. Utilization review; principles and mechanics of medical audit and quality assurance; risk management.
- MRE 4830** **HPA 2(0,4)**  
**Directed Practice III:** PR: MRE 3110; MRE 4202; MRE 3810. Incomplete record control; coding; health/vital statistics; microfilm.
- MRE 4832** **HPA 2(0,4)**  
**Directed Practice IV:** PR: MRE 3110; MRE 4312; MRE 4500; MRE 4830. Indexing abstracting; audit; quality assurance; U.R.; transcription; budget; management of activities in DP I, II, III; computer applications. Assignment to hospital and other health care facilities.
- MRE 4835** **HPA 5(0,15)**  
**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.
- MTG 4212** **AS 4(4,0)**  
**Modern Geometrics:** PR: MAC 3311 or C.I. Sets of axioms and finite geometries, groups of transformations, Euclidean motions of 2-space and 3-space, convexity in 2-space and 3-space. Euclidean geometry of polygon and circle, constructible numbers, constructions and non-Euclidean geometry.
- MTG 4302** **AS 3(3,0)**  
**Introduction to Topology:** PR: MHF 2300 or C.I. Metric spaces, topological spaces, limit points, continuity, compactness, and connectedness.
- MUC 1101** **AS 1(1,1)**  
**Composition I:** Creative work in small forms. Open to qualified non-music majors with C.I. May be repeated for credit.
- MUC 3104** **AS 1(1,0)**  
**Composition II:** PR: C.I. or by audition. Creative work in large and small forms in the area of choral, instrumental, and keyboard media. May be repeated for credit.
- MUC 3311** **AS 2(2,0)**  
**Digital Synthesis:** An introduction to the world of digital technology and its musical applications.
- MUE 1440** **AS 1(0,2)**  
**String Techniques:** Class instruction in beginning string playing techniques.
- MUE 3210** **ED 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.



<b>MUE 3450</b>	<b>AS 1(0,2)</b>
<b>Woodwind Techniques:</b> Class instruction in beginning woodwind playing techniques. May be repeated for credit.	
<b>MUE 3460</b>	<b>AS 1(0,2)</b>
<b>Brass Techniques:</b> Class instruction in beginning brass playing techniques. May be repeated for credit.	
<b>MUE 3470</b>	<b>AS 1(0,2)</b>
<b>Percussion Techniques:</b> Class instruction in beginning percussion playing techniques.	
<b>MUE 4311</b>	<b>ED 2(2,0)</b>
<b>Elementary School Music Instructional Analysis:</b> PR: Junior standing. Organization and administration of instruction for comprehensive music education, K-6; instructional planning, techniques, and materials for elementary music education.	
<b>MUE 4360</b>	<b>ED 2(2,0)</b>
<b>Secondary School Music Instructional Analysis:</b> 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.	
<b>MUE 4480</b>	<b>AS 1(1,1)</b>
<b>Marching Band Techniques:</b> PR: C.I. Principles of organizing and training marching bands: Planning, charting football shows, rehearsal problems. Guided observations. May be repeated for credit.	
<b>MUE 5611</b>	<b>ED 3(3,0)</b>
<b>Trends in Elementary School Music Education:</b> PR: MUE 3210 or equivalent, or C.I. Advanced study of instructional strategies and materials; integration of music education experiences with classroom activities; personal musical skill development; current research and new curricula.	
<b>MUE 5695</b>	<b>3(3,0)</b>
<b>Trends in Arts Education:</b> PR: Initial Certification or CI. Investigation of current trends in arts education; development of strategies for utilizing understandings of arts education in the total curriculum of elementary students.	
<b>MUG 3101</b>	<b>AS 2(1,1)</b>
<b>Basic Conducting:</b> Fundamental techniques and practice in conducting.	
<b>MUG 3202</b>	<b>AS 2(1,2)</b>
<b>Choral Conducting:</b> PR: MUG 3101. Fundamental principles of choral conducting and rehearsal techniques. May be repeated for credit.	
<b>MUG 3302</b>	<b>AS 2(1,1)</b>
<b>Instrumental Conducting:</b> PR: MUG 3101. Fundamental principles of instrumental conducting and rehearsal techniques. May be repeated for credit.	
<b>MUG 4103</b>	<b>AS 2(1,1)</b>
<b>Advanced Conducting:</b> PR: C.I. Study of advanced vocal or instrumental conducting techniques. Rehearsal procedures, selection of materials and program-building, interpretation of scores, study and performance of selected works.	
<b>MUH 4211</b>	<b>AS 3(3,0)</b>
<b>History and Literature I:</b> PR: MUT 2112. In-depth study of the development of Western musical styles from antiquity to present.	
<b>MUH 4212</b>	<b>AS 3(3,0)</b>
<b>History and Literature II:</b> PR: MUT 3116. Continuation of MUH 4211.	
<b>MUH 4218</b>	<b>AS 1(1,0)</b>
<b>Review of Music History:</b> PR: C.I. A review of music history from Ancient Greece to the present.	
<b>MUH 4341</b>	<b>AS 3(3,0)</b>
<b>Seminar in Baroque Music:</b> PR: Satisfactory music history placement examination. Study of selected music from Monteverdi through Bach and Handel. Emphasis on stylistic development and performance practice.	
<b>MUL 2010</b>	<b>AS 3(2,1)</b>
<b>Enjoyment of Music:</b> Only non-music majors. Designed to develop an understanding of musical principles and techniques for listening to music.	
<b>MUL 3400</b>	<b>AS 2(1,1)</b>
<b>Piano Literature I:</b> 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.	
<b>MUL 3401</b>	<b>AS 2(1,1)</b>
<b>Piano Literature II:</b> PR: MUL 3400. Continuation of MUL 3400.	
<b>MUL 3600</b>	<b>AS 1(1,0)</b>
<b>Song Literature I:</b> PR: Major in Music or C.I. Survey of the development of the art song from the Baroque to the present, with emphasis on technical, formal and performance problems.	
<b>MUL 3601</b>	<b>AS 1(1,0)</b>
<b>Song Literature II:</b> PR: MUL 3600. Continuation of MUL 3600.	
<b>MUN 3113</b>	<b>AS 2(0,8)</b>
<b>Marching Band:</b> PR: Admission by audition. Preparation for appearance at football games and special occasions. May be repeated for credit.	
<b>MUN 3123</b>	<b>AS 1(0,3)</b>
<b>Concert Band:</b> Open to all students with audition. Study and performance of music for large ensembles. May be repeated for credit.	

- MUN 3143** **AS 1(0,4)**  
**Wind Ensemble:** Open to all students by audition. Study and performance of music for small ensembles. May be repeated for credit.
- MUN 3283** **AS 1(0,5)**  
**Community Orchestra:** PR: C.I. Open to all students. Audition for wind and percussion players required. Repertoire from symphonic literature. May be repeated for credit.
- MUN 3313** **AS 1(0,3)**  
**University Choir:** Open to all students by audition. Study and performance of large ensemble music. Possible tours. May be repeated for credit.
- MUN 3343** **AS 1(0,3)**  
**Madrigal Singers:** Open to all students by audition. Extra rehearsals and Madrigal Dinners required. Tours. May be repeated for credit.
- MUN 3344** **AS 1(0,3)**  
**Chamber Chorus:** Open to all students by audition. Study and performance of music for small ensembles. May be repeated for credit.
- MUN 3383** **AS 1(0,3)**  
**Oratorio Choir:** Open to all students, faculty, and members of the community for performance of large works. May be repeated for credit.
- MUN 3423** **AS 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 3433** **AS 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 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 3453** **AS 1(0,3)**  
**Piano Ensemble:** Open to Music Majors or C.I. Study and performance of music for small ensembles. May be repeated for credit.
- MUN 3483** **AS 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 3713** **AS 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 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.
- MUN 4473** **AS 1(0,2)**  
**Early Music Ensemble:** PR: C.I. Study and performance of pre-classical music. May be repeated for credit.
- MUO 3503** **AS 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 0(0,2)**  
**Music Forum:** A series of special musical events required of music majors. Includes lectures and recitals by faculty, students, and guest artists.
- MUS 2321** **AS 8(6,6)**  
**Sophomore Practicum in Recording Arts:** Introduction to recording arts; recording engineering, and MIDI music.
- MUS 3322** **AS 10(8,8)**  
**Junior Practicum in Recording Arts:** PR: MUS 2320. Sound reinforcement and concert lighting, tapless studio and music video.
- MUS 4323** **AS 10(8,8)**  
**Senior Practicum in Recording Arts:** PR: MUS 3330. Music business, advanced recording and production, studio maintenance and troubleshooting.
- MUS 4330** **AS 2(1,1)**  
**Recording Techniques for Classical Music:** PR: MUS 2320 or C.I. Concert hall recording techniques for classical music.
- MUS 4401** **AS 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 4905** **AS 1-4(0-4)**  
**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.
- MUT 1111** **AS 2(2,1)**  
**Music Theory IA:** Open to all students. Writing, performance, analysis of and music of various stylistic periods.



<b>MUT 1112</b>	<b>AS 2(2,1)</b>
<b>Music Theory IB:</b> PR: MUT 1111. Continuation of MUT 1111.	
<b>MUT 1241</b>	<b>AS 1(0,2)</b>
<b>Ear Training and Sight Singing IA:</b> Aural and visual/oral comprehension of elements of music--rhythm, melody, harmony, form. Intended to be taken with MUT 1111.	
<b>MUT 1242</b>	<b>AS 1(0,2)</b>
<b>Ear Training and Sight Singing IB:</b> PR: MUT 1241. Continuation of MUT 1241. Intended to be taken with MUT 1112.	
<b>MUT 2116</b>	<b>AS 2(2,1)</b>
<b>Music Theory IIA:</b> PR: MUT 1112. Continuation of MUT 1111-1112; writing, performance, and analysis of music of various stylistic periods.	
<b>MUT 2117</b>	<b>AS 2(2,1)</b>
<b>Music Theory IIB:</b> PR: MUT 2116. Continuation of MUT 2116.	
<b>MUT 2246</b>	<b>AS 1(0,2)</b>
<b>Ear Training and Sight Singing IIA:</b> PR: MUT 1242. Continuation of MUT 1242. Intended to be taken with MUT 2116.	
<b>MUT 2247</b>	<b>AS 1(0,2)</b>
<b>Ear Training and Sight Singing IIB:</b> PR: MUT 2246. Continuation of MUT 2246. Intended to be taken with MUT 2117.	
<b>MUT 3248</b>	<b>AS 1(0,2)</b>
<b>Ear Training and Sight Singing III:</b> PR: MUT 2247. Continuation of MUT 2247. Intended to be taken with MUT 3561.	
<b>MUT 3353</b>	<b>AS 1(0,2)</b>
<b>Jazz Skills I:</b> PR: C.I. Elements of jazz improvisation. Emphasis on listening, harmony, basic arranging and jazz forms.	
<b>MUT 3354</b>	<b>AS 1(0,2)</b>
<b>Jazz Skills II:</b> PR: MUT 3353 or C.I. Continuation of Jazz Skills I.	
<b>MUT 3561</b>	<b>AS 2(2,1)</b>
<b>Music Theory III:</b> PR: MUT 2117. Continuation of MUT 2116-2117; writing, performance, and analysis of music of various stylistic periods.	
<b>MUT 4031</b>	<b>AS 1(1,0)</b>
<b>Review of Music Theory:</b> PR: C.I. A comprehensive review of harmonic and analytic skills. May be repeated for credit.	
<b>MUT 4344</b>	<b>AS 1(1,0)</b>
<b>Seminar in Music Arranging:</b> PR: MUT 3311. Scoring for choral and instrumental ensembles.	
<b>MUT 5381</b>	<b>AS 3(3,0)</b>
<b>Arranging and Composing Music:</b> 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.	
<b>MVB 1211</b>	<b>AS 1(0,1)</b>
<b>Secondary Trumpet:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in trumpet. Intended for non-music majors. May be repeated for credit.	
<b>MVB 1212</b>	<b>AS 1(0,1)</b>
<b>Secondary French Horn:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in French Horn. Intended for non-music majors. May be repeated for credit.	
<b>MVB 1213</b>	<b>AS 1(0,1)</b>
<b>Secondary Trombone:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in trombone. Intended for non-music majors. May be repeated for credit.	
<b>MVB 1214</b>	<b>AS 1(0,1)</b>
<b>Secondary Baritone:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in baritone. Intended for non-music majors. May be repeated for credit.	
<b>MVB 1215</b>	<b>AS 1(0,1)</b>
<b>Secondary Tuba:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in tuba. Intended for non-music majors. May be repeated for credit.	
<b>MVB 1411</b>	<b>AS 2(1,1)</b>
<b>Trumpet I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVB 1412</b>	<b>AS 2(1,1)</b>
<b>French Horn I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVB 1413</b>	<b>AS 2(1,1)</b>
<b>Trombone I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVB 1414</b>	<b>AS 2(1,1)</b>
<b>Baritone I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVB 1415</b>	<b>AS 2(1,1)</b>
<b>Tuba I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVB 2421</b>	<b>AS 2(1,1)</b>
<b>Trumpet II:</b> PR: MVB 1411 and competence determined by faculty jury. Continuation of MVB 1411. May be repeated for credit.	

<b>MVB 2422</b>	<b>AS 2(1,1)</b>
<b>French Horn II:</b> PR: MVB 1412 and competence determined by faculty jury. Continuation of MVB 1412. May be repeated for credit.	
<b>MVB 2423</b>	<b>AS 2(1,1)</b>
<b>Trombone II:</b> PR: MVB 1413 and competence determined by faculty jury. Continuation of MVB 1413. May be repeated for credit.	
<b>MVB 2424</b>	<b>AS 2(1,1)</b>
<b>Baritone II:</b> PR: MVB 1414 and competence determined by faculty jury. Continuation of MVB 1414. May be repeated for credit.	
<b>MVB 2425</b>	<b>AS 2(1,1)</b>
<b>Tuba II:</b> PR: MVB 1415 and competence determined by faculty jury. Continuation of MVB 1415. May be repeated for credit.	
<b>MVB 2431</b>	<b>AS 2(1,1)</b>
<b>Trumpet III:</b> PR: MVB 2421 and competence determined by faculty jury. Continuation of MVB 2421. May be repeated for credit.	
<b>MVB 2432</b>	<b>AS 2(1,1)</b>
<b>French Horn III:</b> PR: MVB 2422 and competence determined by faculty jury. Continuation of MVB 2422. May be repeated for credit.	
<b>MVB 2433</b>	<b>AS 2(1,1)</b>
<b>Trombone III:</b> PR: MVB 2423 and competence determined by faculty jury. Continuation of MVB 2423. May be repeated for credit.	
<b>MVB 2434</b>	<b>AS 2(1,1)</b>
<b>Baritone III:</b> PR: MVB 2424 and competence determined by faculty jury. Continuation of MVB 2424. May be repeated for credit.	
<b>MVB 2435</b>	<b>AS 2(1,1)</b>
<b>Tuba III:</b> PR: MVB 2425 and competence determined by faculty jury. Continuation of MVB 2425. May be repeated for credit.	
<b>MVB 4441</b>	<b>AS 2(1,1)</b>
<b>Trumpet IV:</b> PR: MVB 3431 and competence determined by faculty jury. Continuation of MVB 3431. May be repeated for credit.	
<b>MVB 4442</b>	<b>AS 2(1,1)</b>
<b>French Horn IV:</b> PR: MVB 3432 and competence determined by faculty jury. Continuation of MVB 3432. May be repeated for credit.	
<b>MVB 4443</b>	<b>AS 2(1,1)</b>
<b>Trombone IV:</b> PR: MVB 3433 and competence determined by faculty jury. Continuation of MVB 3433. May be repeated for credit.	
<b>MVB 4444</b>	<b>AS 2(1,1)</b>
<b>Baritone IV:</b> PR: MVB 3434 and competence determined by faculty jury. Continuation of MVB 3434. May be repeated for credit.	
<b>MVB 4445</b>	<b>AS 2(1,1)</b>
<b>Tuba IV:</b> PR: MVB 3435 and competence determined by faculty jury. Continuation of MVB 3435. May be repeated for credit.	
<b>MVB 5451</b>	<b>AS 2(1,0)</b>
<b>Trumpet V:</b> PR: C.I.	
<b>MVB 5452</b>	<b>AS 2(1,0)</b>
<b>French Horn V:</b> PR: C.I.	
<b>MVB 5453</b>	<b>AS 2(1,0)</b>
<b>Trombone V:</b> PR: C.I.	
<b>MVB 5454</b>	<b>AS 2(1,0)</b>
<b>Baritone V:</b> PR: C.I.	
<b>MVB 5455</b>	<b>AS 2(1,0)</b>
<b>Tuba V:</b> PR: C.I.	
<b>MVK 1111</b>	<b>AS 1(0,2)</b>
<b>Class Piano I:</b> Class instruction for beginning piano students. Not open to music majors whose major performing medium is piano.	
<b>MVK 1121</b>	<b>AS 1(0,2)</b>
<b>Class Piano II:</b> PR: MVK 1111 or C.I. Continuation of MVK 1111. Not open to music majors whose major performing medium is piano.	
<b>MVK 1131</b>	<b>AS 1(0,2)</b>
<b>Class Piano III:</b> PR: MVK 1121 or C.I. Continuation of MVK 1121.	
<b>MVK 1141</b>	<b>AS 1(0,2)</b>
<b>Class Piano IV:</b> PR: MVK 1131 or C.I. Continuation of MVK 1131.	
<b>MVK 1211</b>	<b>AS 1(0,1)</b>
<b>Secondary Piano:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in piano. Intended for non-music majors. May be repeated for credit.	
<b>MVK 1213</b>	<b>AS 1(1,1)</b>
<b>Secondary Organ:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in organ. Intended for non-music majors. May be repeated for credit.	



<b>MVK 1411</b>	<b>AS 2(1,1)</b>
<b>Piano I:</b> PR: Major in music or consent of chairperson; audition. May be repeated for credit.	
<b>MVK 1413</b>	<b>AS 2(1,1)</b>
<b>Organ I:</b> PR: Major in music or consent of chairperson; audition. May be repeated for credit.	
<b>MVK 2421</b>	<b>AS 2(1,1)</b>
<b>Piano II:</b> PR: MVK 1411 and competence determined by faculty jury. Continuation of MVK 1411. May be repeated for credit.	
<b>MVK 2423</b>	<b>AS 2(1,1)</b>
<b>Organ II:</b> PR: MVK 1413 and competence determined by faculty jury. Continuation of MVK 1413. May be repeated for credit.	
<b>MVK 3431</b>	<b>AS 2(1,1)</b>
<b>Piano III:</b> PR: MVK 2421 and competence determined by faculty jury. Continuation of MVK 2421. May be repeated for credit.	
<b>MVK 3433</b>	<b>AS 2(1,1)</b>
<b>Organ III:</b> PR: MVK 2423 and competence determined by faculty jury. Continuation of MVK 2423. May be repeated for credit.	
<b>MVK 4441</b>	<b>AS 2(1,1)</b>
<b>Piano IV:</b> PR: MVK 3431 and competence determined by faculty jury. Continuation of MVK 3431. May be repeated for credit.	
<b>MVK 4443</b>	<b>AS 2(1,1)</b>
<b>Organ IV:</b> PR: MVK 3433 and competence determined by faculty jury. Continuation of MVK 3433. May be repeated for credit.	
<b>MVK 4640</b>	<b>AS 1(1,0)</b>
<b>Piano Pedagogy I:</b> 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.	
<b>MVK 4641</b>	<b>AS 1(1,0)</b>
<b>Piano Pedagogy II:</b> PR: C.I. Continuation of MVK 4640. Emphasis on intermediate through advanced levels. May be repeated for credit.	
<b>MVK 5451</b>	<b>AS 2(1,0)</b>
<b>Piano V:</b> PR: C.I.	
<b>MVK 5453</b>	<b>AS 2(1,0)</b>
<b>Organ V:</b> PR: C.I.	
<b>MVO 1214</b>	<b>AS 1(0,1)</b>
<b>Secondary Recorder:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in recorder. Intended for non-music majors. May be repeated for credit.	
<b>MVO 3114</b>	<b>AS 3(2,1)</b>
<b>Recorder I:</b> Open to non-music majors. Class instruction in beginning recorder playing.	
<b>MVO 3124</b>	<b>AS 2(1,1)</b>
<b>Recorder II:</b> PR: C.I. Class instruction in advanced recorder solo and ensemble playing. Open to music students and non-music students who have taken MVO 3114.	
<b>MVO 5250</b>	<b>AS 1(1,0)</b>
<b>Advanced Secondary Instruction:</b> PR: Graduate Standing and C.I. Advanced instructional techniques on a secondary instrument or in voice. May be repeated for credit.	
<b>MVP 1211</b>	<b>AS 1(0,1)</b>
<b>Secondary Percussion:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in percussion. Intended for non-music majors. May be repeated for credit.	
<b>MVP 1411</b>	<b>AS 2(1,1)</b>
<b>Percussion I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVP 2421</b>	<b>AS 2(1,1)</b>
<b>Percussion II:</b> PR: MVP 1411 and competence determined by faculty jury. Continuation of MVP 1411. May be repeated for credit.	
<b>MVP 3431</b>	<b>AS 2(1,1)</b>
<b>Percussion III:</b> PR: MVP 2421 and competence determined by faculty jury. Continuation of MVP 2421. May be repeated for credit.	
<b>MVP 4441</b>	<b>AS 2(1,1)</b>
<b>Percussion IV:</b> PR: MVP 3431 and competence determined by faculty jury. Continuation of MVP 3431. May be repeated for credit.	
<b>MVP 5451</b>	<b>AS 2(1,0)</b>
<b>Percussion V:</b> PR: C.I.	
<b>MVS 1211</b>	<b>AS 1(0,1)</b>
<b>Secondary Violin:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in violin. Intended for non-music majors. May be repeated for credit.	
<b>MVS 1212</b>	<b>AS 1(0,1)</b>
<b>Secondary Viola:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in viola. Intended for non-music majors. May be repeated for credit.	

<b>MVS 1213</b>	<b>AS 1(0,1)</b>
<b>Secondary Cello:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in cello. Intended for non-music majors. May be repeated for credit.	
<b>MVS 1214</b>	<b>AS 1(0,1)</b>
<b>Secondary Bass:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in bass. Intended for non-music majors. May be repeated for credit.	
<b>MVS 1215</b>	<b>AS 1(1,1)</b>
<b>Secondary Harp:</b> Instruction in beginning harp playing.	
<b>MVS 1216</b>	<b>AS 1(0,1)</b>
<b>Secondary Guitar:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in guitar. Intended for non-music majors. May be repeated for credit.	
<b>MVS 1411</b>	<b>AS 2(1,1)</b>
<b>Violin I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVS 1412</b>	<b>AS 2(1,1)</b>
<b>Viola I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVS 1413</b>	<b>AS 2(1,1)</b>
<b>Cello I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVS 1414</b>	<b>AS 2(1,1)</b>
<b>Bass I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVS 1415</b>	<b>AS 2(1,1)</b>
<b>Harp I:</b> Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVS 1416</b>	<b>AS 2(1,1)</b>
<b>Guitar I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVS 1876</b>	<b>AS 1(0,1)</b>
<b>Class Guitar I:</b> Open only to non-music majors. Class instruction in beginning guitar playing.	
<b>MVS 2421</b>	<b>AS 2(1,1)</b>
<b>Violin II:</b> PR: MVS 1411 and competence determined by faculty jury. Continuation of MVS 1411. May be repeated for credit.	
<b>MVS 2422</b>	<b>AS 2(1,1)</b>
<b>Viola II:</b> PR: MVS 1412 and competence determined by faculty jury. Continuation of MVS 1412. May be repeated for credit.	
<b>MVS 2423</b>	<b>AS 2(1,1)</b>
<b>Cello II:</b> PR: MVS 1413 and competence determined by faculty jury. Continuation of MVS 1413. May be repeated for credit.	
<b>MVS 2424</b>	<b>AS 2(1,1)</b>
<b>Bass II:</b> PR: MVS 1414 and competence determined by faculty jury. Continuation of MVS 1414. May be repeated for credit.	
<b>MVS 2425</b>	<b>AS 2(1,1)</b>
<b>Harp II:</b> PR: MVS 1415 and competence determined by faculty jury. Continuation of MVS 1415. May be repeated for credit.	
<b>MVS 2426</b>	<b>AS 2(1,1)</b>
<b>Guitar II:</b> PR: MVS 1416 and competence determined by faculty jury. Continuation of MVS 1416. May be repeated for credit.	
<b>MVS 2826</b>	<b>AS 1(0,1)</b>
<b>Class Guitar II:</b> Open to music students or non-music students who have taken Guitar I or C.I. Class instruction in advanced guitar solo and ensemble playing.	
<b>MVS 3431</b>	<b>AS 2(1,1)</b>
<b>Violin III:</b> PR: MVS 2421 and competence determined by faculty jury. Continuation of MVS 2421. May be repeated for credit.	
<b>MVS 3432</b>	<b>AS 2(1,1)</b>
<b>Viola III:</b> PR: MVS 2422 and competence determined by faculty jury. Continuation of MVS 2422. May be repeated for credit.	
<b>MVS 3433</b>	<b>AS 2(1,1)</b>
<b>Cello III:</b> PR: MVS 2423 and competence determined by faculty jury. Continuation of MVS 2423. May be repeated for credit.	
<b>MVS 3434</b>	<b>AS 2(1,1)</b>
<b>Bass III:</b> PR: MVS 2424 and competence determined by faculty jury. Continuation of MVS 2424. May be repeated for credit.	
<b>MVS 3435</b>	<b>AS 2(1,1)</b>
<b>Harp III:</b> PR: MVS 2425 and competence determined by faculty jury. Continuation of MVS 2425. May be repeated for credit.	
<b>MVS 3436</b>	<b>AS 2(1,1)</b>
<b>Guitar III:</b> PR: MVS 2426 and competence determined by faculty jury. Continuation of MVS 2426. May be repeated for credit.	
<b>MVS 4441</b>	<b>AS 2(1,1)</b>
<b>Violin IV:</b> PR: MVS 3431 and competence determined by faculty jury. Continuation of MVS 3431. May be repeated for credit.	



<b>MVS 4442</b>	<b>AS 2(1,1)</b>
<b>Viola IV:</b> PR: MVS 3432 and competence determined by faculty jury. Continuation of MVS 3432. May be repeated for credit.	
<b>MVS 4443</b>	<b>AS 2(1,1)</b>
<b>Cello IV:</b> PR: MVS 3433 and competence determined by faculty jury. Continuation of MVS 3433. May be repeated for credit.	
<b>MVS 4444</b>	<b>AS 2(1,1)</b>
<b>Bass IV:</b> PR: MVS 3434 and competence determined by faculty jury. Continuation of MVS 3434. May be repeated for credit.	
<b>MVS 4445</b>	<b>AS 2(1,1)</b>
<b>Harp IV:</b> PR: MVS 3435 and competence determined by faculty jury. Continuation of MVS 3435. May be repeated for credit.	
<b>MVS 4446</b>	<b>AS 2(1,1)</b>
<b>Guitar IV:</b> PR: MVS 3436 and competence determined by faculty jury. Continuation of MVS 3436. May be repeated for credit.	
<b>MVS 5451</b>	<b>AS 2(1,0)</b>
<b>Violin V:</b> PR: C.I.	
<b>MVS 5452</b>	<b>AS 2(1,0)</b>
<b>Viola V:</b> PR: C.I.	
<b>MVS 5453</b>	<b>AS 2(1,0)</b>
<b>Cello V:</b> PR: C.I.	
<b>MVS 5454</b>	<b>AS 2(1,0)</b>
<b>Bass V:</b> PR: C.I.	
<b>MVS 5455</b>	<b>AS 2(1,0)</b>
<b>Harp V:</b> PR: C.I.	
<b>MVS 5456</b>	<b>AS 2(1,0)</b>
<b>Guitar V:</b> PR: C.I.	
<b>MVV 1111</b>	<b>AS 1(0,1)</b>
<b>Class Voice:</b> Class instruction in beginning voice. May be repeated for credit.	
<b>MVV 1211</b>	<b>AS 1(0,1)</b>
<b>Secondary Voice:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in voice. Intended for non-music majors. May be repeated for credit.	
<b>MVV 1411</b>	<b>AS 2(1,1)</b>
<b>Voice I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVV 2421</b>	<b>AS 2(1,1)</b>
<b>Voice II:</b> PR: MVV 1411 and competence determined by faculty jury. Continuation of MVV 1411. Major in music or consent of chair; audition. Private and class lessons. May be repeated for credit.	
<b>MVV 3431</b>	<b>AS 2(1,1)</b>
<b>Voice III:</b> PR: MVV 2421 and competence determined by faculty jury. Continuation of MVV 2421. May be repeated for credit.	
<b>MVV 4441</b>	<b>AS 2(1,1)</b>
<b>Voice IV:</b> PR: MVV 3431 and competence determined by faculty jury. Continuation of MVV 3431. May be repeated for credit.	
<b>MVV 4640</b>	<b>AS 1(1,0)</b>
<b>Voice Pedagogy I:</b> PR: C.I. Methods, materials for vocalists; teachers, conductors; voice production; diagnosis of problems and correction; demonstration and observation of teaching; beginning to intermediate levels. May be repeated for credit.	
<b>MVV 4641</b>	<b>AS 1(1,0)</b>
<b>Voice Pedagogy II:</b> PR: C.I. Continuation of MVV 4640. Intermediate to advanced levels. May be repeated for credit.	
<b>MVV 5451</b>	<b>AS 2(1,0)</b>
<b>Voice V:</b> PR: C.I.	
<b>MVW 1211</b>	<b>AS 1(0,1)</b>
<b>Secondary Flute:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in flute. Intended for non-music majors. May be repeated for credit.	
<b>MVW 1212</b>	<b>AS 1(0,1)</b>
<b>Secondary Oboe:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in oboe. Intended for non-music majors. May be repeated for credit.	
<b>MVW 1213</b>	<b>AS 1(0,1)</b>
<b>Secondary Clarinet:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in clarinet. Intended for non-music majors. May be repeated for credit.	
<b>MVW 1214</b>	<b>AS 1(0,1)</b>
<b>Secondary Bassoon:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in bassoon. Intended for non-music majors. May be repeated for credit.	
<b>MVW 1215</b>	<b>AS 1(0,1)</b>
<b>Secondary Saxophone:</b> PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in saxophone. Intended for non-music majors. May be repeated for credit.	

<b>MVW 1411</b>	<b>AS 2(1,1)</b>
<b>Flute I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVW 1412</b>	<b>AS 2(1,1)</b>
<b>Oboe I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVW 1413</b>	<b>AS 2(1,1)</b>
<b>Clarinet I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVW 1414</b>	<b>AS 2(1,1)</b>
<b>Bassoon I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVW 1415</b>	<b>AS 2(1,1)</b>
<b>Saxophone I:</b> PR: Major in music or consent of chair; audition. May be repeated for credit.	
<b>MVW 2421</b>	<b>AS 2(1,1)</b>
<b>Flute II:</b> PR: MVW 1411 and competence determined by faculty jury. Continuation of MVW 1411. May be repeated for credit.	
<b>MVW 2422</b>	<b>AS 2(1,1)</b>
<b>Oboe II:</b> PR: MVW 1412 and competence determined by faculty jury. Continuation of MVW 1412. May be repeated for credit.	
<b>MVW 2423</b>	<b>AS 2(1,1)</b>
<b>Clarinet II:</b> PR: MVW 1413 and competence determined by faculty jury. Continuation of MVW 1413. May be repeated for credit.	
<b>MVW 2424</b>	<b>AS 2(1,1)</b>
<b>Bassoon II:</b> PR: MVW 1414 and competence determined by faculty jury. Continuation of MVW 1414. May be repeated for credit.	
<b>MVW 2425</b>	<b>AS 2(1,1)</b>
<b>Saxophone II:</b> PR: MVW 1415 and competence determined by faculty jury. Continuation of MVW 1415. May be repeated for credit.	
<b>MVW 3431</b>	<b>AS 2(1,1)</b>
<b>Flute III:</b> PR: MVW 2421 and competence determined by faculty jury. Continuation of MVW 2421. May be repeated for credit.	
<b>MVW 3432</b>	<b>AS 2(1,1)</b>
<b>Oboe III:</b> PR: MVW 2422 and competence determined by faculty jury. Continuation of MVW 2422. May be repeated for credit.	
<b>MVW 3433</b>	<b>AS 2(1,1)</b>
<b>Clarinet III:</b> PR: MVW 2423 and competence determined by faculty jury. Continuation of MVW 2423. May be repeated for credit.	
<b>MVW 3434</b>	<b>AS 2(1,1)</b>
<b>Bassoon III:</b> PR: MVW 2424 and competence determined by faculty jury. Continuation of MVW 2424. May be repeated for credit.	
<b>MVW 3435</b>	<b>AS 2(1,1)</b>
<b>Saxophone III:</b> PR: MVW 2425 and competence determined by faculty jury. Continuation of MVW 2425. May be repeated for credit.	
<b>MVW 4441</b>	<b>AS 2(1,1)</b>
<b>Flute IV:</b> PR: MVW 3431 and competence determined by faculty jury. Continuation of MVW 3431. May be repeated for credit.	
<b>MVW 4442</b>	<b>AS 2(1,1)</b>
<b>Oboe IV:</b> PR: MVW 3432 and competence determined by faculty jury. Continuation of MVW 3432. May be repeated for credit.	
<b>MVW 4443</b>	<b>AS 2(1,1)</b>
<b>Clarinet IV:</b> PR: MVW 3433 and competence determined by faculty jury. Continuation of MVW 3433. May be repeated for credit.	
<b>MVW 4444</b>	<b>AS 2(1,1)</b>
<b>Bassoon IV:</b> PR: MVW 3434 and competence determined by faculty jury. Continuation of MVW 3434. May be repeated for credit.	
<b>MVW 4445</b>	<b>AS 2(1,1)</b>
<b>Saxophone IV:</b> PR: MVW 3435 and competence determined by faculty jury. Continuation of MVW 3435. May be repeated for credit.	
<b>MVW 5451</b>	<b>AS 2(1,0)</b>
<b>Flute V:</b> PR: C.I.	
<b>MVW 5452</b>	<b>AS 2(1,0)</b>
<b>Oboe V:</b> PR: C.I.	
<b>MVW 5453</b>	<b>AS 2(1,0)</b>
<b>Clarinet V:</b> PR: C.I.	
<b>MVW 5454</b>	<b>AS 2(1,0)</b>
<b>Bassoon V:</b> PR: C.I.	
<b>MVW 5455</b>	<b>AS 2(1,0)</b>
<b>Saxophone V:</b> PR: C.I.	
<b>NUR 3066</b>	<b>HPA 3(2,1)</b>
<b>Health Assessment:</b> PR: PCB 3703C, ZOO 3733C or Florida RN License. Concepts of health assessment of clients.	



- NUR 3119** **Introduction to Baccalaureate Nursing:** Overview of baccalaureate nursing philosophy, objectives, conceptual framework, scope of practice, history, legal and ethical issues. **HPA 3(3,0)**
- NUR 3166** **Critical Inquiry:** PR: NUR 3066, 3119, 3748C or Florida RN license. A study of approaches to problematic situations in nursing. Selected experiences in investigating, analyzing, and interpreting nursing research. **HPA 3(3,0)**
- NUR 3748C** **Concepts Basic to Nursing Practice:** PR: Admission to the nursing program and completion of prerequisites. Beginning principles and concepts of nursing theory and practice utilizing the nursing process in selected clinical settings. **HPA 6(3,3)**
- NUR 3749C** **Scientific Theories of Nursing I:** PR: NUR 3748C and HSC 4550, NUR 3066 and 3119. CR: NUR 3795C and 3166. Theories and practice related to individuals with acute health problems. **HPA 6(3,3)**
- NUR 3755C** **Scientific Theories of Nursing III:** PR: NUR 3749C, 3795C, 3166. CR: NUR 3796. Theories and practice applicable to the nurse's role in care of the family from conception through delivery. Focus is on family system. **HPA 5(3,2)**
- NUR 3795C** **Scientific Theories of Nursing II:** PR: NUR 3748C, 3119, 3066. CR: NUR 3749C, 3166. Theories and practice related to individuals with long-term and chronic health care problems. **HPA 6(4,2)**
- NUR 3796C** **Scientific Theories of Nursing IV:** PR: NUR 3749C, 3795C, 3166, CR: NUR 3755C. Theories and practice in the care of children and their families. **HPA 5(3,2)**
- NUR 3809** **Transitional Concepts in Nursing:** PR: Florida RN Status; All nursing prerequisites, NUR 3066, 3119, 3166, and C.I. Theoretical bases of professional nursing practice. **HPA 6(6,0)**
- NUR 3905** **Independent Study:** Directed Study. **HPA 1-3(1-3,0)**
- NUR 4196** **Crisis Intervention:** Crisis theory and techniques; recognition and intervention in crisis events. Applicable to all areas of nursing and all helping professions. **HPA 3(3,0)**
- NUR 4297** **Introduction to Cardiovascular Nursing:** Nursing management of cardiac disorders as they affect adaptation of individuals and family. **HPA 3(3,0)**
- NUR 4756C** **Scientific Theories of Nursing V:** PR: NUR 3755C, 3796C or 3709. Theories and principles of psychiatric/mental health nursing. Clinical application in selected settings. **HPA 6(3,3)**
- NUR 4757C** **Scientific Theories of Nursing VII:** PR: NUR 4756C, 4758C. CR: NUR 4941, 4196. Scientific theories and principles of leadership and management of patient care. Application of the decision-making process in selected clinical experiences. **HPA 6(3,9)**
- NUR 4758C** **Scientific Theories of Nursing VI:** PR: NUR 3755C, 3796C or 3709. Theories and principles of public health nursing. Clinical applications in selected settings. **HPA 6(3,3)**
- NUR 4797** **Professional Development and Issues:** PR: NUR 4756C & NUR 4758C or C.I. CR: NUR 4757C. Diagnoses of professional development and issues relating to the baccalaureate graduate entering professional nursing practice. **HPA 3(3,0)**
- NUR 4880** **Introduction to Critical Care Nursing:** PR: NUR 3749C and NUR 3795C or C.I. Theories and principles of comprehensive nursing care of individuals and families in critical care settings. **HPA 3(3,0)**
- NUR 4905C** **Nursing Independent Study:** PR: NUR 4756C. An opportunity for in-depth study in an area of special interest to the student. **HPA 1-10**
- NUR 4906** **Independent Study:** Directed Study. **HPA 1-3(1-3,0)**
- NUR 4941** **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. **HPA 3(0,9)**
- OST 4335** **Business Correspondence:** Originating written business correspondence to include letters, memoranda, and business forms. (Typewriting skill recommended.) **ED 3(3,0)**
- PAD 3003** **Public Administration:** An examination of the basic environment, culture, and organization of public administration in the United States. **HPA 3(3,0)**

- PAD 4034** **HPA 3(3,0)**  
**The Administration of Public Policy:** 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 3(3,0)**  
**Administrative Theory:** A review of the behavioral aspects of the administrative process, its impact on organizational goal achievement and on supervisory strategies. Some social and structural pathologies affecting administrative practice.
- PAD 4110** **HPA 3(3,0)**  
**Intergovernmental Administration:** Various approaches to studying and explaining the American Intergovernmental system. Emphasis on interorganizational activities, i.e., negotiation, cooperation, and coordination within the legal setting.
- PAD 4131** **HPA 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 4204** **HPA 3(3,0)**  
**Fiscal Management:** PR: C.I. Analysis of methods of securing public funds, the process of budgetmaking, and techniques of management used in managing public funds.
- PAD 4414** **HPA 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 4720** **HPA 3(3,0)**  
**Survey Research in Public Administration:** Introduction to the concepts, design, methodology, computer applications, and data analysis in applied research in the public sector.
- PAD 4941** **HPA 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 3(3,u)**  
**Ethics and Values in Public Administration:** Examination of ethics in the public sector. Public concerns, past patterns, and individual/social aspects of ethical behavior are explored.
- PAD 5336** **HPA 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 3(3,0)**  
**Urban Design:** Planning techniques such as planned unit developments, capital improvements planning, and growth management, and planning methods, including needs assessment and graphic design.
- PAD 5338** **HPA 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 5424** **HPA 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.
- PAD 5425** **HPA 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 5806** **HPA 3(3,0)**  
**Local Government Operations:** Operational Functions of municipal and county governments and the role of the chief executive officer.
- PAD 5807** **HPA 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.
- PCB 3023** **AS 3(3,0)**  
**Molecular Cell Biology:** PR: One semester of Organic Chemistry. Molecular structure and function of eukaryotic organelles. Transcription, RNA processing, translation and post translation targeting and modification of gene products.
- PCB 3043** **AS 3(3,0)**  
**Principles of Ecology:** 8 hours in biological sciences. Elements of ecosystems, biogeochemical cycling, environmental factor interactions, population dynamics, and community development.
- PCB 3043L** **AS 1(0,3)**  
**Principles of Ecology Laboratory:** CR: PCB 3043. Field and laboratory investigations of natural ecosystems, with emphasis on current methodology in ecology.
- PCB 3063** **AS 3(3,0)**  
**Genetics:** PR: BSC 2010C. Basic principles of heredity as applied to prokaryotes and eukaryotes.



<b>PCB 3063L</b>	<b>AS 1(0,3)</b>
<b>Genetics Laboratory:</b> CR: PCB 3063. Introduction to laboratory techniques of genetics.	
<b>PCB 3233</b>	<b>HPA 3(3,0)</b>
<b>Immunology:</b> PR: BSC 2010C. Basic principles of immune reactions, antigen antibody interactions, cell mediated immunity, tumor immunology, and immuno therapy.	
<b>PCB 3233L</b>	<b>HPA 1(0,3)</b>
<b>Immunology Laboratory:</b> :CR: PCB 3233. Introduction to laboratory techniques in immunology.	
<b>PCB 3301C</b>	<b>AS 4(3,3)</b>
<b>Aquatic Biology:</b> PR: C.I. An introduction to the plant and animal components of freshwater environments.	
<b>PCB 3523</b>	<b>HPA 3(3,0)</b>
<b>Molecular Biology I:</b> PR: CHM 4053. The general principles governing the structure and function of both prokaryotic and eucaryotic genes.	
<b>PCB 3703C</b>	<b>HPA 4(3,3)</b>
<b>Human Physiology:</b> PR: BSC 2010C or equivalent. The physiology and interrelationships of organ systems of the human body.	
<b>PCB 4302C</b>	<b>AS 4(2,6)</b>
<b>Limnology I:</b> PR: PCB 3043 or C.I. Introduction to limnology and methods for freshwater ecology, with respect to physical, chemical and biological parameters.	
<b>PCB 4303C</b>	<b>AS 4(2,6)</b>
<b>Limnology II:</b> PR: PCB 4302C or C.I. Primary and secondary productivity and interaction among factors such as nutrients, pollutants, temperature radiation, turbidity, and seasons.	
<b>PCB 4524</b>	<b>HPA 3(3,0)</b>
<b>Molecular Biology II:</b> PR: PCB 3523. The processes regulating gene function in prokaryotes and eucaryotes; specialized genetic aspects underlying multicellular existence, DNA evolution.	
<b>PCB 4683</b>	<b>AS 4(4,0)</b>
<b>Population Biology and Evolution:</b> PR: PCB 3043 and PCB 3063 or equivalents. The demographic and genetic structure of populations and their relationships to basic aspects of evolution and adaptation.	
<b>PCB 4723</b>	<b>AS 4(4,0)</b>
<b>Animal Physiology:</b> PR: PCB 3023 or C.I. Functions of body processes occurring in animals, with emphasis on vertebrate physiology.	
<b>PCB 5044C</b>	<b>AS 5(3,2)</b>
<b>Ecosystems of Florida:</b> PR: PCB 3043, PCB 3043L or equivalent. Ecosystems of Florida will be discussed to include geography, geology, climate, energetics, nutrient cycling, community structure and conservation.	
<b>PCB 5045C</b>	<b>AS 4(3,2)</b>
<b>Conservation Biology:</b> PR: PCB 3043 and PCB 3063. Scientific basis of conservation; conservation of ecosystems, populations, exploited species, and endangered species. Weekend field trips are required.	
<b>PCB 5046C</b>	<b>AS 5(3,4)</b>
<b>Advanced Ecology:</b> PR: Ecology, statistics and 2 years of biological science. Population and community ecology with emphasis on growth, regulation, species interactions, succession, and community classification.	
<b>PCB 5235</b>	<b>HPA 3(3,0)</b>
<b>Immunopathology:</b> PR: PCB 3233. In-depth overview of diseases due to deficiencies or over-reactivity of the immune system.	
<b>PCB 5675C</b>	<b>AS 4(3,2)</b>
<b>Evolutionary Biology:</b> PR: PCB 3043 and PCB 3063 or C.I. Review of concepts in evolutionary biology. Emphasis on evolution at and below the species level; consideration of genetic and ecological factors in divergence and speciation.	
<b>PCB 5721</b>	<b>AS 3(3,0)</b>
<b>Comparative Animal Physiology:</b> PR: An undergraduate course in animal physiology or equivalent. Comparison of structural and functional adaptations of animal organ systems. Emphasis upon maximization of fitness under given environmental conditions.	
<b>PCB 5806</b>	<b>HPA 3(3,0)</b>
<b>Endocrinology:</b> PR: PCB 4723 and BCH 4053 or C.I. Mechanisms of action of hormones; interrelationship between the nervous and endocrine systems.	
<b>PCO 4203</b>	<b>AS 4(3,2)</b>
<b>Interviewing and Counseling:</b> PR: PSY 2013, PPE 3003. A review of various interviewing and counseling theories and techniques as well as practical experience in interviewing and counseling procedures.	
<b>PEL 2021</b>	<b>ED 2(2,1)</b>
<b>Racket Sports:</b> Study of performance and application of advanced skills, rules, and etiquette of the sports of racketball and badminton. Physiological and social values accruing from this lifetime sport.	
<b>PEL 2121</b>	<b>ED 2(2,1)</b>
<b>Beginning Golf:</b> Performance and application of basic skills, rules, and etiquette. Physiological and social values accruing from this lifetime sport.	
<b>PEL 2122</b>	<b>ED 2(2,1)</b>
<b>Intermediate Golf:</b> 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.	
<b>PEL 2320</b>	<b>ED 2(2,1)</b>
<b>Basic Volleyball and Softball:</b> The analysis of offensive and defensive alignment, techniques, and strategies.	



- PEL 2341** **ED 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 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 2(2,1)**  
**Basic Football and Basketball:** The analysis of offensive and defensive alignment, techniques, and strategies.
- PEM 2101** **ED 2(2,1)**  
**Body Development:** An in-depth study of individual physical (musculo-skeletal, neuromuscular, cardio-respiratory) fitness. Emphasis on individual diagnosis, principles, procedures, and conduct of related exercise programs.
- PEM 2104** **ED 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 2131** **ED 2(2,1)**  
**Strength Resistance Training:** Study of fitness and strength development through resistance exercise.
- PEM 2171** **ED 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 2351** **ED 2(2,1)**  
**Cycling:** Study of the techniques and physiological benefits of the lifetime sport of cycling. This course is activity oriented and requires access to any model bicycle.
- PEN 1121** **ED 2(2,1)**  
**Elementary Swimming:** For non-swimmers and beginning swimmers. Development and study of technique in the basic skills of water safety and swimming.
- PEO 3005** **ED 3(2,1)**  
**Advanced Sports Analysis:** Advanced analysis of sports for the purpose of teaching and coaching.
- PEO 3011** **ED 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 3031** **ED 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 programs.
- PEO 3041** **ED 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.
- PEP 3204** **ED 3(2,1)**  
**Gymnastics:** This course is designed to develop skill proficiency and instructional strategies in gymnastics.
- PEQ 3101** **ED 2(1,1)**  
**Instructional Analysis in Aquatics:** PR: Sophomore standing or C.I. Analysis of aquatic activities for purposes of teaching and coaching. Includes techniques, conditioning, and strategy.
- PET 3012** **ED 1(1,0)**  
**Physical Education Professional Development:** (Unsatisfactory/Satisfactory grading). The development in the profession of physical education, and action participation in current activities.
- PET 3210** **AS 3(3,0)**  
**Sports Psychology:** A review of principles of psychology related to the enhancement of satisfaction and performance in sports.
- PET 3041** **3(2,1)**  
**Games for the Elementary School Physical Education Program:** The understanding, designing and teaching of the low-organizational game-activities for the elementary school child.
- PET 3720C** **ED 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.
- PET 3740C** **ED 2(1,1)**  
**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 3760** **ED 3(3,0)**  
**Coaching Theory and Officiating:** Theory and methods of coaching and officiating techniques.
- PET 4002** **ED 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 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 4310C** **ED 2(2,1)**  
**Anatomic and Mechanical Kinesiology:** Anatomic and mechanical principles involved in producing skilled human movement; applications.
- PET 4312** **ED 3(2,1)**  
**Biomechanics:** PR: Anatomy. The comprehension and application of anatomical and mechanical principles involved in human movement.
- PET 4351** **ED 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 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 3(3,0)**  
**Administration and Measurement in Physical Education:** This course is designed to address administrative, measurement and evaluation considerations of physical education programs.
- PET 4601** **ED 3(3,0)**  
**Motor Development: Habilitation and Remediation for Exceptional Students:** The comparative study of motor development in typical and atypical children, evaluative processes, methods of enrichment, and prescriptive techniques.
- PET 4603** **HLTH 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** **HLTH 3(3,0)**  
**Sports Medicine Field Application:** Demonstration and Application of the treatment for various sports injuries.
- PET 4622** **ED 3(2,1)**  
**Human Injuries:** PR: Biomechanics or C.I. The prevention, identification, care, and rehabilitation of human injuries.
- PET 4623** **ED 3(3,0)**  
**Sports Medicine Field Application:** Demonstration and Application of the treatment for various sports injuries.
- PET 4640** **ED 3(3,0)**  
**Adapted Physical Education:** Principles and methods of adapting physical education activities and programs for exceptional children and adults; mainstreaming rationale and methods analyzed.
- PET 5355** **HPA 3(3,0)**  
**Exercise Physiology and Health:** In-depth study of adaptations of cardiovascular and respiratory systems during varying degrees of exercise.
- PGY 3401C** **AS 3(3,0)**  
**Photography:** PR: 18 credits of the art core requirement. Beginning photography, technical and aesthetic basis. Designed for upper division art majors with studio skills. Recommended for art majors.
- PGY 3610** **AS 3(3,0)**  
**Photojournalism I:** Introduction to visual communication. History, picture appreciation, layout and design, picture story development, basic camera operation, and ethics. Camera required.
- PGY 3620** **AS 3(1,2)**  
**Photojournalism II:** PR: PGY 3610. Newspaper Photojournalism. Black and white shooting and processing. Newspaper assignments. 35mm SLR camera required.
- PGY 3630** **AS 3(2,1)**  
**Photojournalism III:** PR: PGY 3620. Color photojournalism. Color shooting and processing for commercial and editorial purposes with electronicStrobes in the studio and on location.
- PGY 3640** **AS 3(1,2)**  
**Photojournalism IV:** PR: PGY 3620. The Picture Story. Individual and group projects for extended documentary coverage.

- PGY 3680** **AS 3(3,0)**  
**Photojournalism V:** PR: PGY 3620. Photography Editing. Assignment selection, picture and copy editing, cropping, picture desk management, and ethics of photojournalism, and the new technological advances.
- PGY 4420C** **AS 3(2,3)**  
**Advanced Photography:** PR: ART 2201C, 2202C, and PGY 3401. Designed for upper division art majors with photography concentration. Developing advanced photographic image making skills.
- PGY 4440C** **AS 3(2,3)**  
**Special Problems in Photography:** PR: ART 2201C, 2202C, and PGY 3401C. Designed for upper division art majors with photography concentration. A series of directed photographic problems of a research nature.
- PGY 4580C** **AS 4(3,2)**  
**Special Problems in Film Design:** A series of exercises in craft, techniques, and design for film production, including animation.
- PHH 3100** **AS 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 3400** **AS 3(3,0)**  
**Modern Continental Philosophy:** Continental European philosophy from the 17th through the 19th century (Descartes to Nietzsche). Rationalism, Kant, and post-Kantian idealism, materialism, and the critique of reason.
- PHH 3402** **AS 3(3,0)**  
**Modern British Philosophy:** A study of the major British philosophers from approximately 1600 to 1900. Concentrates on Bacon, Hobbes, Locke, Berkeley, Hume, and Mill.
- PHH 3601** **AS 3(3,0)**  
**Contemporary Continental Philosophy:** Current trends in philosophy as represented by the phenomenologists, Frankfurt School, structuralists, ecophilosophers, and postmodern deconstructionists. Examples range from Husserl, Habermas to Foucault, Derrida.
- PHH 3620** **AS 3(3,0)**  
**Contemporary Analytic Philosophy:** Anglo-American philosophy oriented toward recent developments by Russell, Wittgenstein, and Kripke, including a study of positivism, ideal and ordinary language, and possible-worlds analysis.
- PHI 1100** **AS 3(3,0)**  
**Critical Thinking:** An examination of fallacies and other logical abuses in conjunction with an analysis of traditional modes in an attempt to encourage meaningful thought and usage.
- PHI 2010** **AS 3(3,0)**  
**Introduction to Philosophy:** Inquiry into the meaning and justification of fundamental ideas and beliefs concerning reality, knowledge, and values; application to relevant topics in ethics, religion, and politics.
- PHI 2010H** **AS 3(3,0)**  
**Honors Introduction to Philosophy:** Same as PHI 2010 with honors-level content.
- PHI 3011** **AS 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 contrast and paradigm case arguments.
- PHI 3130** **AS 3(3,0)**  
**Formal Logic I:** A study of sentence and predicate logics, with introduction to modal, epistemic, deontic, multi-valued, and indeterminate logics.
- PHI 3131** **AS 3(3,0)**  
**Formal Logic II:** PR: PHI 3130. Systematic study of propositional and first-order predicate logic; logistic systems and axiomatic methods; problems of metatheory, including consistency, completeness, and decidability.
- PHI 3320** **AS 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 3(3,0)**  
**Philosophy of Law:** Study of the nature of, and justifications for, law and punishment. Examination of the concepts of legal personhood, rights and responsibilities.
- PHI 3600** **AS 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 3601** **AS 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 3630** **AS 3(3,0)**  
**Practical Ethical Dilemmas:** Probes practical ethical problems arising out of advancement and complexities in modern professional life. Considers one or more of the following: medicine, business, technology, law.



<b>PHI 3700</b>	<b>AS 3(3,0)</b>
<b>Philosophy of Religion:</b> An examination of basic ideas, beliefs, attitudes, and functions of religion, with emphasis upon questions of conceptual meaning and cognitive justification.	
<b>PHI 3800</b>	<b>AS 3(3,0)</b>
<b>Aesthetics:</b> An investigation into the nature of human artistic experience, with special reference to questions of form, perception, and style.	
<b>PHI 3803</b>	<b>AS 3(3,0)</b>
<b>Philosophy and Creativity:</b> A companion course to PHI 3800, Aesthetics. Examines the empirical and metaphysical claims made for creativity; attempts to account for intuition, genius, and intelligence.	
<b>PHI 4220</b>	<b>AS 3(3,0)</b>
<b>Philosophy of Language:</b> PR: PHI 2010 and 2130. Develops philosophically illuminating descriptions of certain general features of language, such as reference, truth meaning, and necessity.	
<b>PHI 4360</b>	<b>AS 3(3,0)</b>
<b>Epistemology:</b> PR: Philosophy Major or C.I. Contemporary epistemology, especially theories of justification, radical skepticism, analysis of knowledge, holism, naturalized epistemology, cognitive science, and the possible death of epistemology.	
<b>PHI 4400</b>	<b>AS 3(3,0)</b>
<b>Philosophy of Science:</b> An examination of the conceptual foundations and methodology of modern science.	
<b>PHI 4420</b>	<b>AS 3(3,0)</b>
<b>Philosophy of Social Science:</b> An examination of the objectives, methods and guiding norms of the social sciences and their role in the development of human knowledge.	
<b>PHI 4500</b>	<b>AS 3(3,0)</b>
<b>Metaphysics:</b> 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.	
<b>PHM 3100</b>	<b>AS 3(3,0)</b>
<b>Freedom and Justice:</b> 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.	
<b>PHM 3350</b>	<b>AS 3(3,0)</b>
<b>Introduction to Marxism:</b> A study of the basic principles of Marxism, formulated and developed by Marx and Engels.	
<b>PHM 4123</b>	<b>AS 3(3,0)</b>
<b>Feminist Theory:</b> Study of the evolution of feminist thought and an examination of contemporary issues and perspectives in feminist theory and their relation to divergent feminist practices.	
<b>PHP 3786</b>	<b>AS 3(3,0)</b>
<b>Existentialism:</b> Study of existentialist analysis and criticisms of the human situations as found in the writings of such philosophers as Kierkegaard, Nietzsche, Heidegger, Sartre, and Camus.	
<b>PHT 3002C</b>	<b>HPA 2(1,3)</b>
<b>Foundations of Physical Therapy I:</b> The role of the therapist in the health care team. Professionalism, professional communication and care-giving skills and attitudes are emphasized.	
<b>PHT 3003C</b>	<b>HPA 2(1,3)</b>
<b>Foundations of Physical Therapy II:</b> A continuation of Foundations I. Focus will be on establishing effective helping relationships and interpersonal competence.	
<b>PHT 3110C</b>	<b>HPA 6(4,6)</b>
<b>Clinical Gross Anatomy:</b> An in-depth study of human morphology emphasizing musculoskeletal, neuromuscular, cardiovascular and respiratory systems. Regional cadaver dissection. Surface anatomy and developmental considerations will be integrated.	
<b>PHT 3120C</b>	<b>HPA 4(2,6)</b>
<b>Clinical Kinesiology:</b> A multidisciplinary consideration of normal and abnormal human movement, including recognition, measurement, evaluation and characterization from musculoskeletal, neurological and pathological perspectives.	
<b>PHT 3142C</b>	<b>HPA 4(3,3)</b>
<b>Clinical Neuroscience:</b> An integrated study of normal and disturbed neuromorphology and behavioral sequelae. Focus on motor and sensory functioning and related assessment skills.	
<b>PHT 3155C</b>	<b>HPA 3(2,3)</b>
<b>Physiology of Therapeutic Exercise:</b> PR: PCB 3703C. Principles of exercise physiology in conditioning and deconditioning integrated into assessment and treatment plans for healthy patients and those with cardiopulmonary musculoskeletal neurological or selected metabolic disease.	
<b>PHT 3170</b>	<b>HPA 2(2,0)</b>
<b>Functional Histology:</b> A rigorous treatment of the histology of primary tissues followed by musculoskeletal, neuromuscular, cardiovascular and respiratory systems. Structural interrelationships relative to function will be emphasized.	
<b>PHT 3200C</b>	<b>HPA 3(2,3)</b>
<b>Introduction to Caring For Patients:</b> Basic skills of patient care: evaluation, intervention strategies, gait training, massage, and medical terminology. Includes on week of supervised orientation in a clinical facility. CPR certification required.	



- PHT 3216C** **HPA 3(2,3)**  
**Theory and Procedures of Physical Therapy I:** Theory and practice in the use of electrotherapy and hydrotherapy in the evaluation and treatment of pain and dysfunction. Factors contributing to success of therapy.
- PHT 3217C** **HPA 2(1,3)**  
**Theory and Procedures of Physical Therapy II:** Continuation of Theory and Procedures I. Focus on electrodiagnosis and electrophysiologic assessment and treatment of pain and broad spectrum of disabilities.
- PHT 3222C** **HPA 2(1,3)**  
**Therapeutic Exercise I:** Theory and practice in developing, implementing, and evaluating an exercise program for patients with musculoskeletal dysfunction.
- PHT 3223C** **HPA 2(1,3)**  
**Therapeutic Exercise II:** Development of care plans for patients with special peripheral pathology. Management of cord injured patient. Acute care and home care. Team approach to long-term disability.
- PHT 3350** **HPA 2(0,4)**  
**Medical Science and Pharmacology I:** Organized seminars on the pathophysiology and clinical manifestations of various medical conditions as they relate to medical management in physical therapy practice.
- PHT 3600** **HPA 2(2,0)**  
**Introduction to Clinical Research:** PR: STA 3023. Methods of research applied to clinical environment of physical therapy. Coverage of the language, logic, design and analysis of clinical research.
- PHT 3821** **HPA 1(0,8)**  
**Clinical Education I:** Three weeks of supervised education in clinical facilities. Application of objectives of courses previously completed.
- PHT 4001** **HPA 1(0,2)**  
**Professional Issues:** Current issues on professionalism in physical therapy practice. Student presentations.
- PHT 4004C** **HPA 2(0,4)**  
**Foundations in Physical Therapy III:** Philosophical and theoretical bases of health and illness, health promotion and prevention, the role of physical therapy and the health care delivery system.
- PHT 4232C** **HPA 2(1,3)**  
**Therapeutic Exercise III:** Development of care plans for patients with brain/brain stem pathology. Introduction to the theoretical applications for Boboth, Brunnstrom, Rood and Voss.
- PHT 4233C** **HPA 2(1,3)**  
**Therapeutic Exercise IV:** Application of prosthetic and orthotic components, alignment, fabrication and fitting, with emphasis on the lower extremity. Includes gait analysis and exercise programs.
- PHT 4300** **HPA 2(2,0)**  
**Medical Science and Pharmacology II:** The impact on movement and posture of various orthopedic and neurological disorders; drugs used in their management. Relates neuropathology and orthopedic pathology to the study of movement.
- PHT 4310C** **HPA 2(1,2)**  
**Orthopedic Problems in Physical Therapy:** Critical study of physical therapy examination, assessment and treatments for pain and stress management related to musculoskeletal system.
- PHT 4311C** **HPA 2(1,2)**  
**Neurological Problems in Physical Therapy:** 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 4320** **HPA 3(2,2)**  
**Pedontogeny:** PR: PSY 2013, PTH 3XXXC (Clinical Neuroscience) and PTH 3XXXC (Clinical Kinesiology). Examination of the psychosocial, gross morphological and neurodevelopmental sequences that provide the baseline for pediatric clinical assessment of individuals from birth to twenty one years of age.
- PHT 4370C** **HPA 2(1,2)**  
**Cardiopulmonary Problems in Physical Therapy:** Evaluation, treatment and management of chronic and acute cardiopulmonary problems. Teaching patients strategies for preventing/managing dysfunction.
- PHT 4372** **HPA 2(0,4)**  
**Gerontology in Physical Therapy Practice:** Normal aging processes and the health status of older people. Assessment strategies, implications of altered functional health states, drug use, referral sources, plus legal/ethical considerations.
- PHT 4410C** **HPA 3(3,0)**  
**Teaching and Learning in Physical Therapy:** Educating the patient and caregiver concerning the patient's disability, and treatment regimen and goals. The role of the patient and caregiver in the planning and implementation.
- PHT 4510** **HPA 3(3,0)**  
**Management of Physical Therapy Services:** Planning, organizing, delivering and evaluating physical therapy services within a health care system, including quality assurance, third party payers, DRG's and legislative impact.
- PHT 4610** **HPA 1(0,2)**  
**Clinical Research Problems I:** Exploration of the clinical problem-solving, decision making process.



<b>PHT 4620</b>	<b>HPA 1(0,2)</b>
<b>Clinical Research Problems II:</b> Continuation of Clinical Problems I.	
<b>PHT 4822</b>	<b>HPA 2(0,16)</b>
<b>Clinical Education II:</b> Six weeks of supervised clinical education in a general hospital setting. All previous education objectives apply and are accumulative.	
<b>PHT 4823</b>	<b>HPA 1(0,8)</b>
<b>Clinical Education III:</b> Clinical practicum in a long-term care setting. Emphasis on gerontology. Supervised by a licensed physical therapist, the student will integrate and apply all previous coursework.	
<b>PHT 4831</b>	<b>HPA 2(0,13)</b>
<b>Clinical Internship I:</b> Full-time residence at selected facilities where, under supervision of a licensed therapist, the student may practice and integrate the skills and knowledge from his previous courses.	
<b>PHT 4832</b>	<b>HPA 3(0,40)</b>
<b>Clinical Internship II:</b> Continuation of Clinical Internship I.	
<b>PHY 3014C</b>	<b>AS 3(2,2)</b>
<b>Physics for Teachers I:</b> PR: C.I. "Hands-on" lecture-laboratory course. Statics, simple machines, density, solar energy, heat, weather, waves, optical reflections, naked eye astronomy.	
<b>PHY 3048</b>	<b>AS 3(3,0)</b>
<b>Physics for Engineers and Scientists I:</b> PR: MAC 3311, or equivalent. Mechanics, special relativity, fluids.	
<b>PHY 3048H</b>	<b>AS 1(0,3)</b>
<b>Honors Physics for Engineers &amp; Scientists I:</b> PR: MAC 3311 or equivalent. Same as PHY 3048 with honors-level content.	
<b>PHY 3048L</b>	<b>AS 1(0,3)</b>
<b>Physics Laboratory for Engineers and Scientists I:</b> CR: PHY 3048. Laboratory experiments covering selected topics in physics related to PHY 3048.	
<b>PHY 3048H</b>	<b>AS 3(3,0)</b>
<b>Honors Physics for Engineers and Scientists I:</b> PR: MAC 3311, PHY 3053C or High School Physics, and selection in the Univ. Honors program. Same as PHY 3048 with honors-level content.	
<b>PHY 3049</b>	<b>AS 3(3,0)</b>
<b>Physics for Engineers and Scientists II:</b> PR: PHY 3048 or PHY 3048H. Electricity and magnetism.	
<b>PHY 3049H</b>	<b>AS 3(3,0)</b>
<b>Honors Physics for Engineers and Scientists II:</b> PR: PHY 3048H or PHY 3049. Same as PHY 3049 with honors-level content.	
<b>PHY 3049L</b>	<b>AS 1(0,3)</b>
<b>Physics Laboratory for Engineers and Scientists II:</b> CR: PHY 3049. Laboratory experiments covering selected topics in physics related to PHY 3049.	
<b>PHY 3049H</b>	<b>AS 3(3,0)</b>
<b>Honors Physics for Engineers and Scientists II:</b> PR: PHY 3048H, MAC 3312. Same as PHY 3049 with honors-level content.	
<b>PHY 3053C</b>	<b>AS 4(3,3)</b>
<b>College Physics I:</b> PR: MAC 1104 and MAC 1114 or equivalent or C.I. Mechanics, waves, thermodynamics.	
<b>PHY 3054C</b>	<b>AS 4(3,3)</b>
<b>College Physics II:</b> PR: PHY 3053C. Fluids, electricity and magnetism, optics, x-rays, radioactivity.	
<b>PHY 3101</b>	<b>AS 3(3,0)</b>
<b>Physics for Engineers &amp; Scientists III:</b> PR: PHY 3049 or PHY 3049H. Thermodynamics, oscillations, modern physics.	
<b>PHY 3110H</b>	<b>3(3,0)</b>
<b>Honors Physics for Engineers &amp; Scientists III:</b> PR: PHY 3049 or PHY 3049H. Same as PHY 3101 with honors-level content.	
<b>PHY 3221</b>	<b>AS 3(3,0)</b>
<b>Mechanics I:</b> PR: PHY 3048 or PHY 3048H. Particle dynamics, rigid bodies, Lagrangian formulation of mechanics, Hamilton's equations.	
<b>PHY 3323</b>	<b>AS 3(3,0)</b>
<b>Electricity and Magnetism I:</b> PR: PHY 3049, MAP 3302. Electrostatics, magnetostatics, Lorentz force current electricity, Maxwell's equations.	
<b>PHY 3464</b>	<b>AS 3(3,0)</b>
<b>Physical Basis of Music:</b> PR: MUT 1112 or C.I. Lectures, demonstrations, and student practicum; covers topics in wave motion, acoustics of musical instruments, musical scales, timbre, architectural acoustics, human ear, sound reproduction.	
<b>PHY 3503</b>	<b>AS 3(3,0)</b>
<b>Thermal &amp; Statistical Physics:</b> PR: PHY 3101 or PHY 3101H or C.I. Thermodynamics, kinetic theory, elements of statistical mechanics.	
<b>PHY 3722C</b>	<b>AS 3(1,5)</b>
<b>Physics Laboratory-Electronics:</b> PR: PHY 3752C or C.I. State-of-the-art electronics, transducers, operational amplifiers, phase sensitive circuits, active filters.	
<b>PHY 3752C</b>	<b>AS 4(3,3)</b>
<b>Physics of Scientific Instruments:</b> PR: PHY 3101 or C.I. Applications, functions and operation of electronic instruments.	



- PHY 3802L** **AS 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 4222** **AS 3(3,0)**  
**Mechanics II:** PR: PHY 3221. Hamiltonian dynamics, continuum mechanics, special relativity, special topics.
- PHY 4324** **AS 3(3,0)**  
**Electricity & Magnetism II:** PR: PHY 3323. Dielectrics, magnetic materials, electromagnetic waves, reflection, complex impedance, static solutions to Laplace's Equation, radiation from an accelerated charge & antennae, special relativity.
- PHY 4424** **AS 3(3,0)**  
**Optics:** PR: PHY 3101 and PHY 3323. Wave optics, absorption, stimulated emission, lasers, transforms, coherence, holography.
- PHY 4424L** **AS 3(0,3)**  
**Optical Physics Laboratory:** A laboratory course on geometric optics, inference, diffraction, materials and modern optics.
- PHY 4604** **AS 3(3,0)**  
**Wave Mechanics I:** PR: PHY 3XXX (Intro to Theory Methods in Physics). Postulates of Quantum Mechanics. Operators and Observables, Schroedinger equation with simple applications.
- PHY 4605** **AS 3(3,0)**  
**Wave Mechanics II:** PR: PHY 4604. Further applications of quantum mechanics, perturbation theory, scattering theory, identical particles.
- PHY 4803L** **AS 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 3(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 3(2,2)**  
**Physics for Teachers II:** PR: C.I. "Hands-on" lecture-laboratory course. Dynamics, electricity, magnetism, optics, nuclear radiation.
- PHY 5081C** **AS 1(0.5,1.5)**  
**Physics of Astronomy for Teachers:** P.R.: C.I. Laws of motion, law of gravity, Kepler's Laws, two body orbits, light & spectroscopy. The doppler shift, blackbody radiation, gas laws & stellar evolution.
- PHY 5100** **AS 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.
- PHY 5200C** **AS 1(0.5,1.5)**  
**Newtonian Mechanics for Teachers:** PR: C.I. A lab, lecture, demonstration course studying selected topics in classical mechanics.
- PHY 5240** **AS 3(3,0)**  
**Advanced Mechanics:** PR: PHY 4220 or C.I. Elements of continuum mechanics. Generalized coordinates, virtual work, Lagrange's equations, Hamilton's equation. Inertia tensors, stress tensors. Eulerian description of rigid body motion. Theory of small vibrations.
- PHY 5300C** **AS 1(0.5,1.5)**  
**Electricity for Teachers:** PR: C.I. Circuits, multimeters, oscilloscopes, circuit elements.
- PHY 5302C** **AS 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 3(3,0)**  
**Electrodynamics I:** PR: PHY 3320, MAP 3302, or C.I. Boundary value problems in electrostatics and magnetostatics. Maxwell equations. EM fields in matter, wave generation and propagation; wave guides, resonant cavities.
- PHY 5401C** **AS 1(0.5,1.5)**  
**Optics for Teachers:** PR: C.I. Geometrical and physical optics, spectrometers and lasers.
- PHY 5431** **AS 3(3,0)**  
**Optical Properties of Materials:** PR: PHY 4324, MAP 3302, PHY 4424. Normal modes (dipole and Raman active); microscopic theory of absorption, dispersion, and refraction; wave propagation, crystal optics; scattering mechanisms; optical activity.
- PHY 5446** **AS 3(3,0)**  
**Laser Principles:** PR: PHY 3101, MAP 3302, PHY 4424. Classical introduction to the basic principles of laser gain media, properties of resonators and modes, description of specific laser systems.
- PHY 5500C** **AS 1(0.5,1.5)**  
**Thermal Physics for Teachers:** PR: C.I. Engines, heat pumps, kinetic theory, phase changes, radiation, weather.



- PHY 5524** **AS 3(3,0)**  
**Statistical Physics:** PR: PHY 3503, STA 3032, PHY 4604 or C.I. A study of physical concepts and methods appropriate for the description of systems involving many particles. Ensemble theory, partition functions. Maxwell Boltzmann, Bose-Einstein, Fermi-Dirac statistics.
- PHY 5601** **AS 1(1,0)**  
**Quantum Physics for Teachers:** PR: C.I. Hydrogen atom, diatomic molecules, heat capacity transition rates.
- PHY 5606** **AS 3(3,0)**  
**Quantum Mechanics I:** PR: PHY 4604 or C.I. Basic postulates of quantum mechanics, operators, eigenvalues, parity, potential wells, harmonic oscillator, time dependent and time independent Schrodinger equation, matrix formulation, time independent perturbation theory.
- PHZ 3151** **AS 3(3,0)**  
**Computer Methods in Physics:** PR: PHY 3101. Nonanalytical problems in physics and astronomy solved by approximation with computer assistance.
- PHZ 3271** **AS 3(3,0)**  
**Geophysics:** PR: PHY 3049 and MAP 3302. Introduction to the methods and techniques used in applied geophysics. Seismic wave propagation, flow through porous media, electromagnetic remote sensing gravitation.
- PHZ 5150C** **AS 1(0.5,1.5)**  
**Computer Methods in Physics for Teachers:** PR: C.I. Trajectories with air resistance, trajectories in rotating space colonies, refraction of waves in continuous media, luminosity patterns, temperature profiles.
- PHZ 5301C** **AS 1(0.5,1.5)**  
**Nuclear Physics for Teachers:** PR: C.I. The interaction of ionizing radiation with matter, alpha, beta, gamma decay, fission, fusion, neutron activation, half lives, and equilibrium.
- PHZ 5304** **AS 3(3,0)**  
**Nuclear Physics:** PR: PHY 4604. Nuclear forces, structure, models, reactions, radioactivity, fission, fusion, strange particles.
- PHZ 5405** **AS 3(3,0)**  
**Condensed Matter Physics:** PR: PHY 4604. Crystal lattice cell structure, phonons, free electron model, band theory of solids, Fermi surface, solid state applications, and polymers.
- PHZ 5505** **AS 3(3,0)**  
**Plasma Physics:** PR: PHY 4220, PHY 3320, 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 1(1,0)**  
**Special Relativity for Teachers:** PR: C.I. Length contraction, time dilation, simultaneity, conservation of mass-energy, conservation of momentum, Compton scattering.
- PHZ 5800C** **AS 1(0.5,1.5)**  
**Wave Motion for Teachers:** PR: C.I. Water waves, waves on strings, sound and vibrations.
- PLA 3013** **HPA 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 3105** **HPA 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 3(3,0)**  
**Legal Writing:** PR: PLA 3105. A study of legal writing format and technique and the preparation of memoranda and other legal documents, using research skills learned in PLA 3105.
- PLA 3XXX (pending)** **HPA 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 3203** **HPA 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.
- PLA 3273** **HPA 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 3308** **HPA 3(3,0)**  
**Criminal Procedure:** PR: PLA 3013 or CCJ 3020 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 3504** **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. **HPA 3(3,0)**
- PLA 4003** **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. **HPA 1(1,0)**
- PLA 4020** **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. **HPA 3(3,0)**
- PLA 4263** **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. **HPA 3(3,0)**
- PLA 4408** **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. **HPA 3(3,0)**
- PLA 4433** **Florida Partnerships and Corporations:** Statutory requirements of Florida partnerships and corporations; creation and dissolution of business organizations, responsibilities of officers and basic rights of stockholders. **HPA 3(3,0)**
- PLA 4483** **Administrative Law:** PR: PLA 3013 or PAD 3003. The law regarding governmental agencies with emphasis on the administrative process, Administrative Procedure Acts and special problems of state administrative law. **HPA 3(3,0)**
- PLA 4584** **Land Use and Environmental Law:** PR: PLA 3013, 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. **HPA 3(3,0)**
- PLA 4585** **Landlord and Tenant Law:** PR: PLA 3013, LEA 3504. Study of the basic law regarding landlord and tenant relationship, both commercial and residential, as it applies to the practitioner. **HPA 3(3,0)**
- PLA 4603** **Estates and Trusts:** PR: PLA 3013, 3504. A study of wills and trusts, and applicable legal principles of administration of estates through the processes of the Probate Court. **HPA 3(3,0)**
- PLA 4623** **Estate Administration:** PR: PLA 4603. Study of the laws and procedures applicable to administration of estates. **HPA 3(3,0)**
- PLA 4700** **Professional Ethics and Liability:** PR: PLA 3013. Ethical responsibilities of professionals. Canons of legal ethics, liability for professional malpractice. **HPA 3(3,0)**
- PLA 4763** **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. **HPA 3(3,0)**
- PLA 4803** **Domestic Relations Law:** PR: PLA 3013, 3504. Role of the legal assistant in all phases of family and juvenile law. Fundamental procedures and principles applied by the courts to family problems. **HPA 3(3,0)**
- PLA 4813** **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. **HPA 3(3,0)**
- PLA 5546** **Consumer Rights and the Law:** PR: C.I. The development of the modern law of consumer rights and remedies available to today's consumer. **HPA 3(1,2)**
- PLA 5937** **Seminar in Contemporary Legal Problems:** PR: C.I. Analysis of current trends in legislation and court decisions and their significance to American society. **HPA 3(1,2)**
- POS 2041** **American National Government:** A study of the dynamics of American national government, including its structure, organization, powers, and procedures. **AS 3(3,0)**
- POS 2041H** **Honors American National Government.** Same as POS 2041 with honors-level content. **AS 3(3,0)**
- POS 3122** **State Government and Public Policy:** A comparative study of American state governments, political processes, and public policies, with emphasis on Florida. **AS 3(3,0)**
- POS 3173** **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. **AS 3(3,0)**



- POS 3233** **AS 3(3,0)**  
**Public Opinion:** A substantive and theoretical study of public opinion, with emphasis on opinion formation, opinion measurement, policy linkages. May include field experiences in polling.
- POS 3235** **AS 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 3(3,0)**  
**Contemporary Revolution and Political Violence:** Theories and cases of revolutionary change and political violence in the contemporary world.
- POS 3273** **AS 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 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 responsibilities, leadership, and decision-making.
- POS 3424** **AS 3(3,0)**  
**Congress & 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 3(3,0)**  
**Political Parties & 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 3703** **AS 3(3,0)**  
**Scope and Methods of Political Science:** Introduction to the scope and methodology of political analysis. Extensive examination of the discipline, research design and methodology.
- POS 4142** **AS 3(3,0)**  
**Metropolitan Politics:** Analysis of political patterns, processes, and issues in American communities. Intergovernmental relations and structural and political arrangements in the existing and emerging metropolitan areas.
- POS 4206** **AS 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 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 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 3(3,0)**  
**Judicial Process & Politics:** Study of the formal and informal judicial process. Legal culture, bureaucratic model, judicial recruitment and outputs, comparative judicial behavior.
- POS 4412** **AS 3(3,0)**  
**Presidential Campaigning:** PR: C.I. Introduces the process of candidate selection, convention behavior, actual campaign process and the transition of power.
- POS 4445** **AS 3(3,0)**  
**Comparative Political Parties:** The study of political party systems and processes. The course may include U.S., Canada, and other political systems.
- POS 4603** **AS 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.
- POS 4604** **AS 3(3,0)**  
**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 3(3,0)**  
**Politics and Civil Rights:** Examination of development and issues of civil rights in the second reconstruction. Course emphasis process and analysis of policy.
- POS 4941** **AS 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 organization, elected or appointed official.
- POS 5746** **AS 3(3,0)**  
**Quantitative Methods in Political Research:** PR: C.I. Methods of model building and research design, including conceptualization and measurement of political variables; techniques of data collection and quantitative analysis and computer usage.
- POT 3204** **AS 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 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 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 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 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 3(3,0)**  
**Contemporary Political Theory:** Introduction to the contemporary debate about the status of rights, utilitarianism, and liberalism, and communitarian marxist, libertarian, and feminist critiques of liberalism.
- POT 4314** **AS 3(3,0)**  
**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 4414** **AS 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.
- PPE 3003** **AS 3(3,0)**  
**Personality Theory:** PR: PSY 2013. A survey of theory and research on the development of personality characteristics.
- PPE 5055** **AS 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 3002** **AS 4(4,0)**  
**Physiological Psychology:** PR: PSY 2013. A survey of the physiological basis of behavior, emphasizing the relationship between the nervous system and behavior. Lecture and demonstration/lab.
- PSB 3442** **AS 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 3842** **AS 3(3,0)**  
**Sleep and Dreams:** PR: PSY 2013. An overview of the psychological and physiological foundation of sleep and dreams. Concrete facts and disturbances of sleep. Cultural perspectives on, and contemporary applications of dreams.
- PSB 4013C** **AS 4(2,2)**  
**Introduction to Neuropsychology:** PR: PSB 3002. Study of brain function, with particular emphasis on human behavior. Lecture/Lab.
- PSB 4103C** **AS 3(2,2)**  
**Biofeedback Applications:** PSY 2013, PSB 3002 and C.I. Introduction to theory, instrumentation, research and clinical application of biofeedback. Training in use of biofeedback equipment. Lec./Lab.
- PSB 5005** **AS 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 1512** **AS 3(3,0)**  
**Physical Science:** PR: MAC 1104 or MGF 1203. Fundamental laws of mechanics, heat, waves, electricity, magnetism; chemical processes and equations, properties of gases, liquids, solids, solutions. Mathematical analysis and logic applied to conclusions, inferences.
- PSC 1512L** **AS 1(0,2)**  
**Physical Science Lab:** CR: PSC 1512. Experiments to apply the scientific method to observation and analysis in mechanics, heat, light, electricity and magnetism, chemical and physical transformations.
- PSY 2013** **AS 3(3,0)**  
**General Psychology:** An introductory survey of the basic principles, theories, and methods of contemporary psychology.
- PSY 2013H** **AS 3(3,0)**  
**Honors General Psychology:** Same as PSY 2013 with honors-level content.
- PSY 2023** **AS 1(1,0)**  
**Careers in Psychology:** PR: PSY 2013. An examination of various career opportunities in Psychology, including educational entry requirements, and related professional issues. Graded "S" or "U."
- PSY 3204** **AS 4(3,2)**  
**Statistical Methods in Psychology:** PR: STA 2014 and PSY 3214. Standard scores, confidence intervals, sampling distributions, hypothesis testing, correlation and regression as applied to research in psychology.



- PSY 3214** **Research Methods in Psychology:** PR: PSY 2013 and STA 2014 or STA 3023. Investigation of experimental designs and research methods utilized in psychology. Analysis and preparation of experimental designs in psychology. **AS 4(3,2)**
- PSY 3302** **Psychological Measurement:** PR: PSY 2013 and STA 2014 or 3023. A study of the theory underlying psychological tests and measurements procedures, including reliability, validity, and item analysis. **AS 3(3,0)**
- PSY 3303** **Applied Testing:** PR: PSY 3302: A critical review of the substantive and psychometric properties of selected psychological tests; procedures for the construction of psychological instruments. **AS 3(3,0)**
- PSY 3624** **Parapsychology:** PR: PSY 2013. An examination of the history and development of research on paranormal phenomena, with special emphasis on recent developments in extrasensory perception and psychokinesis. **AS 3(3,0)**
- PSY 3951** **Undergraduate Field Work:** PR: C.I. Placement in a community agency for supervised experience in applications of psychology to community problems. **AS 3(1,5)**
- PSY 4215** **Advanced Research Methods in Psychology:** PR: STA 2014, PSY 3214, PSY 3204. Design, analysis, and interpretation of complex research projects in psychology. **AS 4(2,3)**
- PSY 4604** **History and Systems of Psychology:** PR: EXP 3404 and PPE 3003. Historical development of psychology, with emphasis on classical theoretical positions. **AS 3(3,0)**
- PUP 3204** **Environmental Politics:** An examination of politics and policy-making concerning issues of conservation, pollution and development of land, air, and water resources. **AS 3(3,0)**
- PUP 3314** **Minorities in American Politics:** Historical and contemporary role of minority groups in the American political process, including an examination of their electoral significance and relevant legislative, executive, and judicial policies. **AS 3(3,0)**
- PUP 3510** **Introduction to Space Studies:** Broad-based multidisciplinary introduction to space studies, providing familiarity with some technical aspects as well as the relationship between technical and public policy considerations. **AS 3(3,0)**
- PUP 4003** **American Public Policy:** PR: POS 2041 or C.I. Policy formation, implementation and evaluation, with a focus upon contemporary American problems, including the malapportionment of societal power and social conflict. **AS 3(3,0)**
- PUP 4009** **Topics in Public Policy:** Intensive analysis of a current policy problem. Sample topics include education, growth management, housing, affirmative action, welfare, and transportation. May be repeated once. **AS 3(3,0)**
- PUP 4323** **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. **AS 3(3,0)**
- PUP 4503** **Government & Science:** PR: C.I. Examination of interface between science and government. Focus is upon governmental support for science, social accountability, and role of the scientist-policy maker in comparative context. **AS 3(3,0)**
- PUP 4510** **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. **AS 3(3,0)**
- PUP 4602** **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. **AS 3(3,0)**
- PUR 3100** **Writing for Public Relations:** PR: Grammar Proficiency Examination, and typing test. Development of skills in writing for public relations. **AS 3(2,1)**
- PUR 4000** **Public Relations:** Principles and practice of Public Relations including techniques, research, tools, publicity, and management. **AS 3(3,0)**
- PUR 4800** **Public Relations Campaigns:** PR: PUR 4000 or C.I. Planning and execution of public relations campaigns for profit and non-profit organizations. **AS 3(3,0)**



<b>RAT 3001</b>	<b>HPA 3(3,0)</b>
<b>Introduction to Radiation Oncology:</b> PR: Acceptance to program. An overview of radiation therapy treatment procedures and patient care considerations.	
<b>RAT 3241</b>	<b>HPA 3(3,0)</b>
<b>Clinical Radiobiology:</b> Application of the principles and theories of radiobiology to the clinical practice of radiation therapy	
<b>RAT 3242</b>	<b>HPA 2(2,0)</b>
<b>Oncologic Pathology:</b> PR: Acceptance to program. Study of neoplastic diseases, including causative factors, characteristics, histologic grading, staging and treatment.	
<b>RAT 3614</b>	<b>HPA 2(2,0)</b>
<b>Radiation Therapy Physics I:</b> PR: Acceptance to program. Study of radiation production, properties, interactions, measurement, and protection.	
<b>RAT 4247</b>	<b>HPA 3(3,0)</b>
<b>Radiation Oncology I:</b> Methods of radiation therapy treatment of malignant conditions of the skin, oral cavity, pharynx, sinuses, thyroid, digestive and respiratory systems.	
<b>RAT 4248</b>	<b>HPA 3(3,0)</b>
<b>Radiation Oncology II:</b> Methods of treatment of malignant conditions of the nervous system, eye, reproductive system, urinary system, connective tissue, and lympho-reticular system.	
<b>RAT 4618C</b>	<b>HPA 4(3,3)</b>
<b>Radiation Therapy Physics II:</b> PR: RAT 3614. Study of radiation protection techniques, design considerations, modes and characteristics of decay, handling of radionuclides and clinical dosimetry.	
<b>RAT 4619C</b>	<b>HPA 4(3,3)</b>
<b>Radiation Therapy Physics III:</b> PR RAT 3614. Study of treatment planning principles and techniques, including multiple beam therapy, rotation therapy, arc therapy, and irregular field techniques.	
<b>RED 3012</b>	<b>ED 3(3,0)</b>
<b>Basic Foundations of Reading:</b> 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.	
<b>RED 4519</b>	<b>ED 3(3,1)</b>
<b>Diagnostic and Corrective Reading Strategies:</b> 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.	
<b>RED 5147</b>	<b>ED 3(3,0)</b>
<b>Developmental Reading:</b> Principles, procedures, organization, and current practices in the elementary reading program. Materials and methods of instruction.	
<b>RED 5514</b>	<b>ED 3(3,1)</b>
<b>Classroom Diagnosis and Development of Reading Proficiencies:</b> PR: RED 5147 or equivalent. Classroom diagnosis and corrective teaching in reading; instructional materials. Case study required.	
<b>REE 3043</b>	<b>BA 3(3,0)</b>
<b>Fundamentals of Real Estate:</b> PR: Junior standing. Emphasis placed upon the application of basic tools of economics, finance, and marketing to solve private and public sector real estate problems.	
<b>REE 4103</b>	<b>BA 3(3,0)</b>
<b>Real Estate Appraisal &amp; Valuation:</b> PR: FIN 3403, FIN 3303, FIN 3404, FIN 3504, FIN 3453. Focus on the fundamentals of real estate valuation utilizing tools of financial and economic analysis.	
<b>REE 4204</b>	<b>BA 3(3,0)</b>
<b>Real Estate Finance:</b> PR: FIN 3403, FIN 3303, FIN 3404, FIN 3504, FIN 3453. Focus on the fundamentals of real estate finance utilizing tools of financial and economic analysis.	
<b>REE 4303</b>	<b>BA 3(3,0)</b>
<b>Real Estate Investment Analysis:</b> PR: FIN 3403, FIN 3303, FIN 3404, FIN 3504, FIN 3453. Focus on real estate decision-making in the private sector utilizing tools of financial and economic analysis.	
<b>REL 2300</b>	<b>AS 3(3,0)</b>
<b>World Religions:</b> Basic features and historical background on Confucianism, Taoism, Hinduism, Buddhism, Judaism, Christianity, and Islam.	
<b>REL 3600</b>	<b>AS 3(3,0)</b>
<b>Studies in Judaism:</b> An inquiry into the foundations and development of Jewish thought in various parts of the world.	
<b>RET 3026C</b>	<b>HPA 4(3,3)</b>
<b>Introduction to Respiratory Therapy:</b> 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.	
<b>RET 3264C</b>	<b>HPA 3(2,3)</b>
<b>Mechanical Ventilation:</b> PR: RET 3026C. Function and use of mechanical ventilators, patient evaluation methods. All forms of ventilatory support will be studied. Lecture and laboratory.	
<b>RET 3483</b>	<b>HPA 1(1,1)</b>
<b>Respiratory Disease Assessment:</b> PR: RET 3026C. Physical examination of the chest, demonstrating equipment use, methods and theory. Chest radiography will be extensively covered. Lecture and demonstration.	



<b>RTV 3210</b>	<b>AS 4(1,3)</b>
<b>Radio Production:</b> PR: 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.	
<b>RTV 3223</b>	<b>AS 3(2,1)</b>
<b>Lighting for Video:</b> PR: RTV 3200. Basic lighting techniques for both studio and location, single and multiple-camera video production.	
<b>RTV 3231</b>	<b>AS 4(1,3)</b>
<b>Broadcast Announcing and Performance:</b> PR: RTV 3200 or C.I. A study of communication problems on camera and microphone. Development of performance skills in announcing, interviewing, narrating, and reporting. Lab TBA.	
<b>RTV 3260</b>	<b>AS 4(1,3)</b>
<b>Electronic Field Production/Video Editing:</b> PR: RTV 3200. Introduction to non-studio video instruction. Electronic field production and electronic news gathering. Utilization of portable video equipment and control track videotape editing equipment.	
<b>RTV 3300</b>	<b>AS 4(1,3)</b>
<b>Broadcast Newswriting:</b> PR: Grammar Proficiency Examination and departmental typing exam. The study and practice of writing news for radio and television.	
<b>RTV 3301</b>	<b>AS 4(1,3)</b>
<b>Advanced Broadcast Newswriting:</b> PR: RTV 3300. The writing of in-depth news items, including documentaries, features, and investigative materials.	
<b>RTV 3501</b>	<b>AS 4(1,3)</b>
<b>Broadcast Copywriting:</b> PR: Grammar Proficiency Examination and departmental typing exam. Preparation of written commercial copy for radio and television and public service.	
<b>RTV 3810</b>	<b>AS 3(2,1)</b>
<b>Broadcast Promotion:</b> PR: RTV 3200. Examination of techniques that stations use to keep listeners and viewers and to attract new ones. Use of advertising and merchandising.	
<b>RTV 3942</b>	<b>AS 1(0,3)</b>
<b>Television Practicum:</b> PR: 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.	
<b>RTV 4206</b>	<b>AS 4(1,3)</b>
<b>Television Directing:</b> PR: RTV 3200 and RTV 3260. Preparation and direction of programs, with emphasis on dramatic values of composition.	
<b>RTV 4270</b>	<b>3(2,1)</b>
<b>Radio Production and Programming:</b> PR: RTV 3200 or C.I. The study and production of current radio formats and their effects on today's radio listener.	
<b>RTV 4403</b>	<b>AS 3(3,0)</b>
<b>Radio, Television and Society:</b> PR: RTV 3000 for RTV majors. A study of the impact of electronic media upon the habits, customs, and thinking of our times. Considerations of internal media problems.	
<b>RTV 4404</b>	<b>AS 3(3,0)</b>
<b>International Broadcasting:</b> PR: RTV 3000. Comparative analysis of national broadcast systems. World broadcasting as a social, political, and economic force.	
<b>RTV 4600</b>	<b>AS 4(3,1)</b>
<b>Non-Commercial Broadcasting:</b> The uses of the electronic mass media for the dissemination of non-commercial programming. Public broadcasting and educational uses of the media.	
<b>RTV 4700</b>	<b>AS 3(3,0)</b>
<b>Regulation of Broadcasting:</b> PR: RTV 3000. Federal, state, local and self-regulatory agencies and practices which govern electronic media.	
<b>RTV 4800</b>	<b>AS 3(3,0)</b>
<b>Broadcast Management:</b> PR: RTV 4700. Consideration of broadcast management problems in station operations at the local, regional, and national levels.	
<b>RUS 1115</b>	<b>AS 2(2,1)</b>
<b>Basic Review of Russian:</b> A review of Russian grammar, vocabulary and civilization. For students with previous instruction in German. Graded S or U.	
<b>RUS 1120</b>	<b>AS 4(4,1)</b>
<b>Elementary Russian Language and Civilization I:</b> Designed to initiate the student to the major language skills: Open only to students with no previous experience with this language.	
<b>RUS 1121</b>	<b>AS 4(4,1)</b>
<b>Elementary Russian Language and Civilization II:</b> PR: RUS 1115, RUS 1120, or experience with this language. Continuation of RUS 1120.	
<b>RUS 2210</b>	<b>AS 3(3,0)</b>
<b>Intensive Russian Conversation:</b> PR: One year of Russian or equivalent. Practical use of the language, leading toward fluency and correctness in speaking.	
<b>RUS 2230</b>	<b>AS 4(4,1)</b>
<b>Intermediate Russian Language and Civilization I:</b> PR: RUS 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.	
<b>RUS 2231</b>	<b>AS 3(3,1)</b>
<b>Intermediate Russian Language and Civilization II:</b> PR: RUS 2230 or equivalent. Continuation of RUS 2230, with emphasis on Russian civilization.	



- RUS 3240** **Russian Conversation:** PR: RUS 2231 or equivalent. Development of skills in conversation and comprehension through practice. This course may be repeated for credit. When repeated, credit will apply to general electives only. **AS 3(3,0)**
- RUS 3420** **Russian Composition:** PR: RUS 2231 or equivalent. Development of skills in composition. This course may be repeated for credit. When repeated, credit will apply to general electives only. **AS 3(3,0)**
- RUS 4411** **Advanced Russian Conversation:** PR: RUS 3240. An advanced conversation course on directed topics from various domains of public life and disciplines. **AS 3(3,0)**
- RUS 4421** **Advanced Russian Composition:** PR: RUS 3420. An in-depth study of stylistic and grammatical mechanisms of Russian literary styles. **AS 3(3,0)**
- R UW 3100** **Survey of Russian Literature I:** PR: RUS 2231. A survey course of the major Russian writers and poets from Pushkin to Turgeniev. **AS 3(3,0)**
- R UW 3101** **Survey of Russian Literature II:** PR: RUS 2231. A survey course of the major Russian writers and poets from Dostoyevsky to the present. **AS 3(3,0)**
- R UW 3370** **The Russian Short Story:** PR: RUS 2231. Masterpieces of the Russian short story from Pushkin to Bulgakov. **AS 3(3,0)**
- R UW 4330** **Russian Poetry:** PR: RUS 2231. A survey of Russian poetry from Zhukovsky to the present. **AS 3(3,0)**
- R UW 4480** **Contemporary Soviet Literature:** PR: RUS 2231. A study of the major trends in Soviet literature from Sologub to Aksyenov. **AS 3(3,0)**
- R UW 4481** **Soviet Underground and Emigré Literature:** PR: RUS 2231. A study of Soviet underground and dissident literature from Zamyatin to the present. **AS 3(3,0)**
- SCE 3310** **Teaching Science in Elementary School:** PR: Junior standing or C.I. Selected concepts; organizing for instruction; techniques; evaluation procedures. **ED 4(4,0)**
- SCE 3330** **Science Instructional Analysis:** PR: EDG 4321 or C.I. Course objectives for a school curriculum and methods and materials. **ED 4(3,2)**
- SCE 5716** **Methods in Elementary School Science:** Organization of instruction in elementary school science including methods, evaluation, materials, strategies, and current practices. **ED 3(3,0)**
- SCE 5825** **Space Science for Educators:** PR: Senior standing or C.I. Introduction to space science, manned space flight and space education curriculum. **ED 3(3,0)**
- SLS 2311** **Overview of Selected Medical Careers:** Introduction to medical careers in medicine, dentistry, veterinary medicine, osteopathic medicine, optometry, chiropractic medicine, podiatry, and pharmacy. Graded "S" or "U." **AS 1(1,0)**
- SOP 3004** **Social Psychology:** PR: PSY 2013. Effects of social situations and social variables on the behavior of individuals. **AS 3(3,0)**
- SOP 3724** **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. **AS 3(3,0)**
- SOP 3742** **Psychology of Women:** PR: PSY 2013. Examination of the psychological impact of changing sex roles on women in modern society. Topics include childrearing, working women, and sex differences in personality and cognition. **AS 3(3,0)**
- SOP 3772** **Sexual Behavior:** PR: PSY 2013. Physiological, social, and clinical aspects of human sexuality. **AS 3(3,0)**
- SOW 3104** **Assessing Human Development:** Skill development in assessing "person-in-environment" throughout the life cycle. Study of the interaction of bio-psychosocial, cultural, and systemic influences on human functioning. **HPA 3(3,0)**
- SOW 3111** **Assessing Human Systems:** Development of skills in assessing families, groups, organizations, and communities, their impact on human functioning, and their potential for providing social support. **HPA 3(3,0)**



- SOW 3203** **HPA 3(2,1)**  
**Social Welfare and Community Resources:** Study of social welfare, programs and services, including socio-cultural, political, economic, and historical forces affecting changes in societal responses to human needs.
- SOW 3232** **HPA 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 3300** **HPA 3(2,1)**  
**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 3(1,2)**  
**Interpersonal Skills in Social Work Practice:** 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 3(3,0)**  
**Social Work Research:** Study of quantitative and qualitative methods of building knowledge for social work and the ethical use of research in professional practice.
- SOW 4341** **HPA 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 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 4381** **HPA 3(1,2)**  
**Agency Management:** Basic administrative practice, including planning, staffing, delegating, managing and developing personnel, monitoring services, budgeting, and fund raising.
- SOW 4431** **HPA 3(2,1)**  
**Evaluating Social Work Practice and Service Programs:** PR: SOW 3403, SOW 3000. The study of systematic data collection and of measurement of change in individuals, families, groups, programs, and communities.
- SOW 4510** **HPA 9(0,27)**  
**Field Education:** PR: Completion of required courses in major: GPA 2.5 in major. CR: SOW 4522, SOW 4620. Supervised learning experiences in agencies which relate social work practice to theory, involving 420 clock hours in the field.
- SOW 4522** **HPA 3(2,1)**  
**Field Education Seminar:** PR: Completion of required courses in major: CR: SOW 4510, SOW 4620. Weekly seminar to examine the field experience and to relate theory with practice situations.
- SOW 4602** **HPA 3(3,0)**  
**Social Work in Health Settings:** Study of social work roles, interventions, and issues related to helping patients in health settings.
- SOW 4620** **HPA 3(2,1)**  
**Social Work with Minorities:** PR: SOW 4341, SOW 4343, or C.I. Study of oppressed groups and relevant social work interventions; skill development in work with, and in behalf of, people of minority groups.
- SOW 4644** **HPA 3(3,0)**  
**Social Services for the Elderly:** Development of interventive skills for obtaining, providing, and improving social services in behalf of elderly persons and their families.
- SOW 4645** **HPA 3(3,0)**  
**Children's Services:** 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.
- SPA 3000** **HPA 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 3(3,0)**  
**Introduction to Communicative Disorders:** Etiology, symptoms, and methods of diagnosing and treating communicative disorders. For beginning and prospective majors in communicative disorders.
- SPA 3050** **HPA 3(0,6)**  
**Clinical Observation and Practice:** PR: SPA 3550, C.I. Observation and supervised participation in speech pathology and audiology in the university clinic and local clinics. May be taken twice for credit.
- SPA 3101** **HPA 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.

<b>SPA 3112</b>	<b>HPA 3(3,0)</b>
<b>Basic Phonetics:</b> Physiological descriptions and visual notation of speech patterns and regional dialects.	
<b>SPA 3112L</b>	<b>HPA 1(0,2)</b>
<b>Basic Phonetics Laboratory:</b> Students will have practical experiences in transcription of normal and deviant speech.	
<b>SPA 3333</b>	<b>HPA 3(3,0)</b>
<b>Introduction to Signed English and Culture of the Deaf.</b> Vocabulary and grammar through introductory level. Conceptual basis of ASL discussed.	
<b>SPA 3550</b>	<b>HPA 3(3,0)</b>
<b>Clinical Methods in Communicative Disorders:</b> PR: SPA 3002. An analysis of techniques and methods of planning and executing therapeutic programs for communicatively handicapped individuals.	
<b>SPA 3550L</b>	<b>HPA 1(0,2)</b>
<b>Clinical Methods in Communicative Disorders Laboratory:</b> Students will have practical experience in analysis of live and videotaped diagnosis and therapy sessions.	
<b>SPA 4011</b>	<b>HPA 3(3,0)</b>
<b>Fundamentals of Speech and Hearing Science:</b> Lectures and demonstrations in basic acoustics and speech acoustics.	
<b>SPA 4032</b>	<b>HPA 3(3,0)</b>
<b>Audiology I:</b> Introduction to physics of sound, anatomy of hearing mechanism, pure tone audiometry, hearing aids, problems of the hearing handicapped. Clinical skills development will be required.	
<b>SPA 4033</b>	<b>HPA 3(3,0)</b>
<b>Audiology II:</b> PR: SPA 4030. An overview of medical aspects of hearing loss, electrophysiological audiometry, and other differential diagnostic testing.	
<b>SPA 4201</b>	<b>HPA 3(3,0)</b>
<b>Communicative Disorders: Articulation:</b> PR: SPA 3002, 3112. Survey of articulation disorders and their management.	
<b>SPA 4201L</b>	<b>HPA 1(0,2)</b>
<b>Communicative Disorders: Articulation Laboratory:</b> Students will have practical experience in diagnosis and treatment in articulation disorders.	
<b>SPA 4210</b>	<b>HPA 4(3,1)</b>
<b>Communicative Disorders: Voice:</b> PR: SPA 3101, 3550. Survey of voice disorders and their management. Observations required.	
<b>SPA 4222</b>	<b>HPA 3(3,0)</b>
<b>Nonorganic Speech Disorders:</b> PR: SPA 3550, 4201. Survey of nonorganic aspects of stuttering and voice disorders and their management.	
<b>SPA 4222L</b>	<b>HPA 1(0,2)</b>
<b>Nonorganic Speech Disorders Laboratory:</b> Students will have practical experience in diagnosis and treatment in nonorganic speech disorders.	
<b>SPA 4251</b>	<b>HPA 3(3,0)</b>
<b>Organic Speech Disorders:</b> PR: SPA 3101, 4032, 4201. Survey of organically based communication disorders and their management. Observations required.	
<b>SPA 4251L</b>	<b>HPA 1(0,2)</b>
<b>Organic Speech Disorders Laboratory:</b> Students will have practical experience in observations of organic speech disorders.	
<b>SPA 4310</b>	<b>HPA 3(3,0)</b>
<b>Audiology II:</b> PR: SPA 4032. An overview of medical aspects of hearing loss, electrophysiological audiometry, and other differential diagnostic testing.	
<b>SPA 4321</b>	<b>HPA 4(4,0)</b>
<b>Aural Habilitation-Rehabilitation:</b> PR: SPA 4011, 4201. Principles and procedures in the utilization of residual hearing, auditory training, speech reading, and the use of hearing aids.	
<b>SPA 4380</b>	<b>HPA 3(3,0)</b>
<b>Introduction to American Sign Language:</b> Development of ASL vocabulary and grammar. Deaf culture, literature, research examined.	
<b>SPA 4381</b>	<b>HPA 3(3,0)</b>
<b>Intermediate American Sign Language:</b> Expansion of ASL vocabulary with increased development of knowledge concerning deaf culture.	
<b>SPA 4382</b>	<b>HPA 4(3,1)</b>
<b>Intermediate American Sign Language:</b> Conversation. Emphasis on refining fluency receptively and expressively. Practicum with the deaf community.	
<b>SPA 4402</b>	<b>HPA 3(3,0)</b>
<b>Communicative Disorders: Language:</b> PR: SPA 3550, LIN 3710. Survey of language disorders and their management. Observations required.	
<b>SPA 4402L</b>	<b>HPA 1(0,2)</b>
<b>Communicative Disorders: Language Laboratory:</b> Students will have practical experience in diagnosis and treatment in language disorders.	



- SPA 4412** **HPA 3(3,0)**  
**Augmentative Communications Systems:** PR: LIN 3710, SPA 4032. Students will learn the rudiments of nonverbal communication systems, for example, Bliss, Rebus, Manual Signing, Language Boards, and finger spelling.
- SPA 4941** **HPA 1(1,1)**  
**Practicum in Communicative Disorders.**
- SPA 5005** **HPA 3(3,0)**  
**Survey of Communicative Disorders:** A survey of speech, language, and hearing disorders for habilitative personnel and other interested professionals.
- SPA 5120** **HPA 4(4,3)**  
**Physiological Acoustics:** PR: SPA 4032; Graduate status or C.I. Lectures, readings, and experiments pertaining to the subjective reception of sound.
- SPA 5225** **HPA 3(3,0)**  
**Fluency Disorders:** PR: Graduate status or C.I. Identification and evaluation of disorders of rhythm. Emphasis will be on methods of intervention in disorders of fluency.
- SPA 5225L** **HPA 1(0,2)**  
**Fluency Disorders Laboratory:** PR: Graduate status or C.I. Practical application of clinical skills in fluency disorders.
- SPA 5307** **HPA 3(3,0)**  
**Differential Diagnosis of Auditory Disorders:** PR: SPA 4032; Graduate status or C.I. Clinical techniques in pure tone speech, acoustic impedance, and electrophysiologic response audiometry.
- SPA 5327** **HPA 4(4,0)**  
**Aural Habilitation/Rehabilitation:** PR: Graduate status or C.I. Principles and procedures involved in speech and language acquisition management, utilization of residual hearing, speech reading, and the use of hearing aids.
- SPA 5553** **HPA 3(3,0)**  
**Differential Diagnostic in Speech and Language:** PR: SPA 6204, 6403, 6211, 5805. Administration and interpretation of evaluation techniques, including standardized tests, will be presented. Emphasis on techniques allowing for differential diagnosis of speech and language disorders.
- SPA 5553L** **HPA 1(0,4)**  
**Differential Diagnosis in Speech and Language Laboratory:** PR: SPA 6204, 6403, 6211, 5805. Assignment to diagnostic teams to apply the diagnostic techniques presented in SPA 5553. Experiences include test administration, interviewing, writing diagnostic reports, and oral presentations.
- SPA 5554** **HPA 3(3,0)**  
**Therapeutic Communication:** PR: Graduate status or C.I. Practical interviewing and counseling in the area of communicative disorders.
- SPA 5600** **HPA 3(3,0)**  
**Administration and Management of Communicative Disorders Programs:** PR: SPA 3002. 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 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 1600** **AS 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 3(3,0)**  
**Honors Fundamentals of Oral Communication:** PR: University Honors Program. Same as SPC 1600 with honors-level content.
- SPC 3301** **AS 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 3410** **AS 2(2,0)**  
**Parliamentary Procedures:** Principles and rules governing participation and leadership in the conduct of formal business meetings.
- SPC 3425** **AS 3(2,1)**  
**Group Interaction and Decision-Making:** A study of small group processes. Attention is given to problem solving, leadership emergence, conformity behavior, and group member role responsibilities.
- SPC 3445** **AS 3(3,0)**  
**Leadership Through Oral Communication:** A theoretical and practical investigation of leadership in oral communication situations, principles of parliamentary law, and approaches to problem solving.
- SPC 3511** **AS 3(1,2)**  
**Argumentation and Debate:** PR: SPC 1600 or C.I. Study and practice in the preparation and delivery of argumentative speeches emphasizing argument, evidence, and organization.



<b>SPC 3601</b>	<b>AS 3(1,2)</b>
<b>Advanced Public Speaking:</b> PR: SPC 1600 or C.I. Advanced training in selecting and organizing materials for various types of speeches. Practice in thinking and speaking before audiences.	
<b>SPC 4330</b>	<b>AS 3(3,0)</b>
<b>Nonverbal Communication:</b> Review of current behavioral research in such areas as proxemics, kinesics, physical characteristics, tactile communication, and paralanguage. Lectures are supplemented by frequent nonverbal exercises.	
<b>SPC 4350</b>	<b>AS 3(3,0)</b>
<b>Studies in Listening:</b> 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.	
<b>SPC 4440</b>	<b>AS 3(3,0)</b>
<b>Group Dynamics:</b> A study of human behavior in group situations.	
<b>SPC 4540</b>	<b>AS 3(3,0)</b>
<b>Attitudes and Communication:</b> PR: Grammar Proficiency Examination. A survey of the immediate and direct ways in which persuasive communications and social groups come to influence attitudes.	
<b>SPC 5200</b>	<b>AS 3(3,0)</b>
<b>Evolution of Communication Theory: General Survey:</b> Major communication trends from classical era to the present. Comparison of Aristotelian and non-Aristotelian rhetorics. Contributions of principal figures will be discussed.	
<b>SPN 1115</b>	<b>AS 2(2,1)</b>
<b>Basic Review of Spanish:</b> A review of Spanish grammar, vocabulary and civilization. For students with previous instruction in Spanish. Graded S or U.	
<b>SPN 1120</b>	<b>AS 4(4,1)</b>
<b>Elementary Spanish Language and Civilization I:</b> Designed to initiate the student to the major language skills. Open only to students with no previous experience with this language.	
<b>SPN 1121</b>	<b>AS 4(4,1)</b>
<b>Elementary Spanish Language and Civilization II:</b> PR: SPN 1115, SPN 1120 or experience with this language. Continuation of SPN 1120.	
<b>SPN 1170</b>	<b>AS 8(16,10)</b>
<b>Elementary Spanish Study Abroad:</b> Elementary Spanish language and civilization taught in the native environment.	
<b>SPN 2140</b>	<b>AS 3(3,0)</b>
<b>Business Spanish I:</b> Spanish language and culture for beginning Spanish language students from a business professional perspective. Emphasis on communicative skills in a professional setting. (Does not fulfill University foreign language requirement.)	
<b>SPN 2230</b>	<b>AS 4(3,1)</b>
<b>Intermediate Spanish Language and Civilization I:</b> PR: SPN 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.	
<b>SPN 2231</b>	<b>AS 3(3,1)</b>
<b>Intermediate Spanish Language and Civilization II:</b> PR: SPN 2230 or equivalent. Continuation of SPN 2230, with emphasis on Spanish civilization.	
<b>SPN 2240</b>	<b>AS 3(3,1)</b>
<b>Intensive Spanish Conversation:</b> PR: One year of Spanish or equivalent. Practical use of the language, leading toward fluency and correctness in speaking at the intermediate level.	
<b>SPN 2270</b>	<b>AS 8(16,10)</b>
<b>Intermediate Spanish Study Abroad:</b> PR: Elementary Spanish. Designed to continue development of language skills at the intermediate level taught in the native environment.	
<b>SPN 3141</b>	<b>AS 3(3,0)</b>
<b>Business Spanish II:</b> PR: C.I. Continuation of Business Spanish I.	
<b>SPN 3142</b>	<b>AS 3(3,0)</b>
<b>Business Spanish III:</b> PR: C.I. Continuation of Business Spanish II.	
<b>SPN 3241</b>	<b>AS 3(3,0)</b>
<b>Spanish Conversation:</b> PR: SPN 2231 or equivalent. Development of skills in conversation and comprehension through practice. This course may be repeated for credit. When repeated, credit will apply to general electives only.	
<b>SPN 3420</b>	<b>AS 3(3,0)</b>
<b>Spanish Composition:</b> PR: SPN 2231 or equivalent. Development of skills in composition. This course may be repeated for credit. When repeated, credit will apply to general electives only.	
<b>SPN 4143</b>	<b>AS 3(3,0)</b>
<b>Business Spanish IV:</b> PR: C.I. Advanced course in business terminology and development of advanced language skills.	
<b>SPN 4410</b>	<b>AS 3(3,0)</b>
<b>Advanced Spanish Conversation:</b> PR: SPN 3241. Advanced conversation on directed topics from various disciplines: literature, art, psychology, philosophy, music, business, and the sciences.	
<b>SPN 4420</b>	<b>AS 3(3,0)</b>
<b>Advanced Spanish Composition:</b> PR: SPN 3420. Readings and written imitations of modern literary styles in the form of themes, sketches, poems, and original stories.	



<b>SPW 4450</b>	<b>AS 3(3,0)</b>
<b>Stylistics:</b> PR: SPN 3420 or equivalent. An intense study of textural criticism. An examination of the relationship between language and literature, explications and linguistic analysis of literary texts.	
<b>SPN 4510</b>	<b>AS 3(3,0)</b>
<b>Spanish Civilization and Culture:</b> PR: SPN 3241 or SPN 3420. A study of Spanish civilization and culture from Pre-Roman times to the present. Conducted in Spanish.	
<b>SPN 4520</b>	<b>AS 3(3,0)</b>
<b>Latin American Civilization and Culture:</b> PR: SPN 3241 or SPN 3420. An overview of the currents in Latin American culture and civilization from the Pre-Columbian period to the present. Conducted in Spanish.	
<b>SPN 4800</b>	<b>AS 3(3,0)</b>
<b>Spanish-American Syntax:</b> The course examines the Spanish language from its beginning to the present, with special emphasis as it is written and spoken in Latin America and the U.S.	
<b>SPW 3100</b>	<b>AS 3(3,0)</b>
<b>Survey of Spanish Literature I:</b> PR: SPN 2231 or equivalent. Main literary currents and works from the Middle Ages through the Eighteenth century.	
<b>SPW 3101</b>	<b>AS 3(3,0)</b>
<b>Survey of Spanish Literature II:</b> PR: SPN 2231 or equivalent. Main literary currents and works of the Nineteenth century to the present.	
<b>SPW 3130</b>	<b>AS 3(3,0)</b>
<b>Survey of Latin-American Literature I:</b> PR: SPN 2231 or equivalent. Main literary currents and works from the colonial period to the Nineteenth Century Romanticism.	
<b>SPW 3131</b>	<b>AS 3(3,0)</b>
<b>Survey of Latin-American Literature II:</b> PR: SPN 2231 or equivalent. Main literary currents and works of the Nineteenth century from the Realism to the present.	
<b>SPW 3370</b>	<b>AS 3(3,0)</b>
<b>Spanish Short Story:</b> PR: SPN 2231 or equivalent. A study of representative 19th and 20th-century Spanish short stories and their authors.	
<b>SPW 4310</b>	<b>AS 3(3,0)</b>
<b>Golden Age Drama:</b> PR: SPW 3100. 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.	
<b>SPW 4450</b>	<b>AS 3(3,0)</b>
<b>Spanish Literary Theory:</b> PR: SPN 3420 or equivalent. A study of textual criticism with emphasis in the theory of genre.	
<b>SPW 4460</b>	<b>AS 3(3,0)</b>
<b>Nineteenth Century Spanish Literature:</b> PR: SPW 3101. A study of the representative authors and works in Spanish Romanticism, Realism, and Naturalism.	
<b>SPW 4480</b>	<b>AS 3(3,0)</b>
<b>Twentieth Century Spanish Literature:</b> PR: SPW 3101. A study of the representative authors and works in drama and the novel.	
<b>SPW 4600</b>	<b>AS 3(3,0)</b>
<b>Cervantes I:</b> PR: SPW 3100. Don Quixote.	
<b>SPW 4720</b>	<b>AS 3(3,0)</b>
<b>The Generation of 1898:</b> PR: SPW 3101. A study of the generation's main authors and their works.	
<b>SPW 4770</b>	<b>AS 3(3,0)</b>
<b>Caribbean Spanish Literature:</b> An overview of the literature of the Spanish-speaking Caribbean countries from colonial time to the present.	
<b>SSE 3312</b>	<b>ED 4(4,0)</b>
<b>Teaching Social Science in the Elementary School:</b> PR: Admission to Phase II or C.I. Selected themes, problems, and concepts; organizing for instruction; techniques; evaluation procedures.	
<b>SSE 3333</b>	<b>ED 4(3,2)</b>
<b>Social Science Instructional Analysis:</b> PR: EDG 4321 or C.I. Study of instructional programs in social sciences; objectives; materials; techniques; organization of instruction; evaluation procedures; current research.	
<b>SSE 5113</b>	<b>3(3,0)</b>
<b>Methods in Elementary School Social Science:</b> Study of instructional programs in social sciences; objectives; materials; techniques; current research; and their application in elementary school setting.	
<b>STA 2014</b>	<b>AS 3(3,0)</b>
<b>Principles of Statistics:</b> Introduction to statistical concepts in modern society. Basic principles, frequency distributions, measures of location and dispersion, probability, statistical inference.	
<b>STA 3023</b>	<b>AS 3(3,0)</b>
<b>Statistical Methods I:</b> PR: MAC 1104 or MGF 1203. First methods course introducing probability and statistical inference, including estimation, hypothesis testing, binomial and normal distributions, sample size.	
<b>STA 3023H</b>	<b>AS 3(3,0)</b>
<b>Honors Statistical Methods I:</b> PR: Honors Program Student; Calculus desired but not necessary. Same as STA 3023 with honors-level content.	
<b>STA 3032</b>	<b>EN 3(3,0)</b>
<b>Probability and Statistics for Engineers:</b> PR: MAC 3312 and computer programming. Axioms 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 3(3,0)**  
**Statistical Graphics:** PR: STA 3023 or STA 3032 and a knowledge of a programming language. Principles of graph construction, graphical perception, graphical methods, computer programs for graph construction.
- STA 4095** **AS 1(1,0)**  
**Statistical Problem Solving:** PR: STA 4164. Course presents approaches to solving a wide variety of statistics problems. Emphasizes assumptions, parametric and nonparametric approaches to problems in all areas of statistics.
- STA 4102** **AS 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 4163** **AS 3(3,0)**  
**Statistical Methods II:** PR: STA 3023 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 3(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 4173** **AS 3(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 4202** **AS 3(3,0)**  
**Design of Experiments:** Methods of constructing and analyzing designs for experimental investigations, concepts of blocking, randomization, replication, confounding in factorial experiments, incomplete block designs.
- STA 4222** **AS 3(3,0)**  
**Sample Survey Methods:** PR: STA 3023 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 3(3,0)**  
**Statistical Theory I:** PR: STA 3023 or STA 3032; CR: MAC 3313. 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 3(3,0)**  
**Statistical Theory II:** PR: STA 4321. Conditional distributions, sums of random variables, Chebyshev's inequality, central limit theorem, method of moments, maximum likelihood, confidence intervals, hypothesis testing, transformations of two random variables.
- STA 4502** **AS 3(3,0)**  
**Nonparametric Statistical Methods:** PR: STA 3023 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 4664** **AS 3(3,0)**  
**Statistical Quality Control:** PR: STA 3023 or STA 3032. Statistical concepts and methods applied to the control of quality of manufactured products.
- STA 4852** **AS 3(3,0)**  
**Applied Time Series:** PR: STA 4163. Forecasting methods, time series analysis, stationary and nonstationary time series, Arima models, forecasting processes.
- STA 5156** **EN 3(3,0)**  
**Probability and Statistics for Engineers:** PR: STA 3032 or equivalent. Theory and applications of discrete and continuous random variables, hypothesis tests, confidence intervals, regression analysis and correlation.
- STA 5205** **AS 3(3,0)**  
**Experimental Design:** PR: STA 4164, STA 5206 or STA 5156. Construction and analysis of designs for experimental investigations. Blocking, randomization, replication; Incomplete block designs. Factorial and fractional designs; design resolution.
- STA 5206** **AS 3(3,0)**  
**Statistical Analysis:** PR: STA 3023; not open to students who have completed STA 4164. Data analysis; statistical models; estimation; tests of hypotheses; analysis of variance, covariance, and multiple comparisons; regression and nonparametric methods.
- STA 5505** **AS 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 5825** **AS 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.
- SUR 3101C** **EN 3(2,3)**  
**Surveying:** PR: MAC 3311 and Junior standing. Theory and field practice in surveying measurements and the reduction and adjustment of field data.
- SYA 3110** **AS 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 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 4(3,2)**  
**Research Methods:** PR: SYG 2000 and STA 2014. 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 3301** **AS 3(2,1)**  
**Social Research:** PR: SYG 2000. Study of scientific method, problem formulation, data collection and interpretation, reporting and criticism.
- SYA 3400** **AS 4(3,1)**  
**Research Methods and Statistics:** PR: SYG 2000 and one other sociology course.
- SYA 4450** **AS 4(3,2)**  
**Data analysis:** PR: SYA 3300 and STA 2014. 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 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 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.
- SYD 3410** **AS 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 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 3800** **AS 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 3(3,0)**  
**Population:** Concerned with the study of human population, its distribution, composition, and change.
- SYD 4680** **AS 3(3,0)**  
**Soviet Sociology:** Analysis of relations of various Soviet institutions such as education, religion, and the Communist party to society; class structure and social problems.
- SYG 2000** **AS 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 3(3,0)**  
**Honors General Sociology:** Same as SYG 2000, with honors-level content.
- SYG 3010** **AS 3(3,0)**  
**Social Problems:** Analysis of major social problems such as mental disorders, sexual deviance, racial discrimination, poverty, community disorganization, and violence.
- SYO 3000** **AS 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 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 3(3,0)**  
**Sociology of Mental Illness:** A sociological examination of mental illness as a social problem; legal aspects of mental illness, and the mental health professions.



<b>SYO 3530</b>	<b>AS 3(3,0)</b>
<b>Social Stratification:</b> PR: SYG 2000. Study of class, status and power, cultural variations in stratification systems; patterns of mobility and change.	
<b>SYO 4100</b>	<b>AS 3(3,0)</b>
<b>Family Trends :</b> PR: SYG 2000. Study of intimate relationships, practices, trends and issues affecting today's marriages and families.	
<b>SYO 4250</b>	<b>AS 3(3,0)</b>
<b>Sociology of Education:</b> 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.	
<b>SYO 4300</b>	<b>AS 3(3,0)</b>
<b>Political Sociology:</b> Sociological analysis of political and parapolitical groups; socioeconomic variable of voting behavior, power elites; societies and systems of government.	
<b>SYO 4400</b>	<b>AS 3(3,0)</b>
<b>Medical Sociology:</b> Analysis of patient beliefs and behavior, health practitioners, the social organization of hospitals and health services, contemporary problems in the delivery of health care.	
<b>SYP 3300</b>	<b>AS 3(3,0)</b>
<b>Collective Behavior:</b> PR: SYG 2000. Analysis of relatively unstructured social situations, such as mobs, crowds, etc. as well as more structured forms of collective behavior such as social movements.	
<b>SYP 3400</b>	<b>AS 3(3,0)</b>
<b>Social Change:</b> PR: SOC 2000. Concerned with the context and essential sources of social development and change.	
<b>SYP 3510</b>	<b>AS 3(3,0)</b>
<b>Sociology of Deviant Behavior:</b> An examination of the nature, types, and societal reactions to deviant behavior; special emphasis on the process of stigmatization and the emergence of deviant subcultures.	
<b>SYP 3520</b>	<b>AS 3(3,0)</b>
<b>Criminology:</b> 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.	
<b>SYP 3530</b>	<b>AS 3(3,0)</b>
<b>Juvenile Delinquency:</b> Types of delinquency behavior found among juveniles; possible causes and ways society attempts to treat the various forms of delinquency.	
<b>SYP 3540</b>	<b>AS 3(3,0)</b>
<b>Sociology and Law:</b> The relationship between law and society, including the functions of law and its organization, social and economic consequences, jury selection, and moder trends.	
<b>SYP 3551</b>	<b>AS 3(3,0)</b>
<b>Sociology of Alcoholism:</b> Introduction to the nature of alcoholism and review of its impact on society.	
<b>SYP 3602</b>	<b>AS 3(3,0)</b>
<b>Sociology of Popular Music:</b> 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.	
<b>SYP 3650</b>	<b>AS 3(3,0)</b>
<b>Sociology and Sport:</b> 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.	
<b>SYP 4000</b>	<b>AS 3(3,0)</b>
<b>Sociological Social Psychology:</b> 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.	
<b>SYP 4550</b>	<b>AS 3(3,0)</b>
<b>Sociology of Drug Abuse:</b> Analysis of the socio-culture elements of the drug culture.	
<b>SYP 4730</b>	<b>AS 3(3,0)</b>
<b>Sociology of Aging:</b> Sociological aspects of aging in America.	
<b>TAX 3000</b>	<b>BA 3(3,0)</b>
<b>Personal Income Tax:</b> A study of federal income tax designated to convey basic tax concepts and skills related to the individual taxpayer. Not open to accounting majors.	
<b>TAX 4001</b>	<b>BA 3(3,0)</b>
<b>Federal Income Tax I:</b> PR: Junior standing and ACG 3103 with a grade of "C" or better or C.I. Concepts and methods of determining taxable income of individuals, and selected topics.	
<b>TAX 5015</b>	<b>BA 3(3,0)</b>
<b>Federal Income Tax II:</b> PR: ACG 4123, TAX 4001 and meet school admission requirements. Concepts and methods of determining taxable income for partnerships and corporations, and selected topics.	
<b>THE 1020</b>	<b>AS 3(2,1)</b>
<b>Theatre Survey:</b> PR: None. An overview of the theatre arts.	
<b>THE 1020H</b>	<b>AS 3(2,1)</b>
<b>Theatre Survey—Honors:</b> An honors-level over-view of the art and craft of the theatre.	
<b>THE 2071</b>	<b>AS 3(2,2)</b>
<b>Cinema Survey:</b> A broad cultural approach to the study of cinema.	



<b>THE 2925</b>	<b>AS 2(0,10)</b>
<b>Theatre Practicum I:</b> Open to all students interested in participating in productions of University Theatre. May be repeated for credit. Primarily an activity course.	
<b>THE 3110</b>	<b>AS 3(3,0)</b>
<b>Theatre History I:</b> PR: None. Development of theatre art from the earliest times through the seventeenth century.	
<b>THE 3111</b>	<b>AS 3(3,0)</b>
<b>Theatre History II:</b> PR: None. Development of theatre art from the seventeenth century to the twentieth century.	
<b>THE 3251</b>	<b>AS 3(2,2)</b>
<b>History of the Motion Picture:</b> Development of the film industry; its social and economic impact. Major films and trends in context.	
<b>THE 3260</b>	<b>AS 3(2,2)</b>
<b>Theatrical Costume History and Design:</b> PR: TPA 2211. History and theory of theatrical costumes.	
<b>THE 3370</b>	<b>AS 3(3,0)</b>
<b>Modern Drama:</b> Drama from Ibsen to Theatre of the Absurd, with reference to developing production styles and dramatic movements.	
<b>THE 3925</b>	<b>AS 2(0,10)</b>
<b>Theatre Practicum II:</b> PR: THE 2925 and C.I. Primarily an activity course. Student will serve in some position of responsibility in production. May be repeated for credit.	
<b>THE 4760C</b>	<b>AS 3(3,0)</b>
<b>Theatre for the Schools:</b> PR: None. Designed to aid the student in teaching theatre. Philosophy, methodology, objectives, planning, evaluative techniques, and production procedures relative to performance.	
<b>THE 4800</b>	<b>AS 3(2,2)</b>
<b>Children's Theatre:</b> An introduction to the bases of theatre production for young people. Production of children's theatre, play selection, costumes, management, and touring.	
<b>TPA 2200</b>	<b>AS 3(2,2)</b>
<b>Technical Theatre Production I:</b> PR: None. History, theory, and practice of technical theatre production. [Service on crew as required.]	
<b>TPA 2204</b>	<b>AS 3(2,2)</b>
<b>Technical Theatre Production II:</b> PR: None. A continuation of TPA 2210 [Service on crew as required].	
<b>TPA 3060</b>	<b>AS 3(2,2)</b>
<b>Scene Design I:</b> PR: THE 1020, TPA 2210 or C.I. Study of and practice of scene design; perspective drawing, fundamentals of design, and drafting.	
<b>TPA 3077</b>	<b>AS 3(3,0)</b>
<b>Scene Painting:</b> PR: TPA 3060 or C.I. Study of the art and craft of painting for the theatre. Research into period designs and execution of examples of a variety of styles.	
<b>TPA 3220</b>	<b>AS 3(2,2)</b>
<b>Stage Lighting:</b> PR: THE 1020 and TPA 2210 or C.I. Study of stage lighting techniques, practices, and equipment. [Service on light crew as required].	
<b>TPA 3221</b>	<b>AS 3(2,2)</b>
<b>Lighting Design:</b> PR: TPA 3220. Continuation of Stage Lighting with emphasis on theory, style, and individual lighting design projects.	
<b>TPA 3230</b>	<b>AS 3(2,2)</b>
<b>Theatrical Costume Construction and Technique:</b> A continuation of THE 3260, in which emphasis is placed on design and construction, planning, and execution of costumes. (Service on crew as required.)	
<b>TPA 3250</b>	<b>AS 3(2,2)</b>
<b>Make-up Technique:</b> Analysis and design of stage make-up.	
<b>TPA 3400</b>	<b>AS 3(3,0)</b>
<b>Theatre Management:</b> Study of the development, organization, management, funding, and promotion of theatre programs.	
<b>TPA 4061</b>	<b>AS 3(2,2)</b>
<b>Advanced Design:</b> PR: TPA 3060, and 3221 or THE 3260. Continuation of design series, with emphasis on planning and executing scenery, lighting, and/or costume designs.	
<b>TPP 2110</b>	<b>AS 3(2,2)</b>
<b>Acting I:</b> Emphasis on movement, motivation, voice, characterizational techniques, makeup, and other basic requirements for acting.	
<b>TPP 2700</b>	<b>AS 3(2,2)</b>
<b>Stage Diction:</b> The role of the voice in the art of acting through practice in vocal characterization.	
<b>TPP 3111</b>	<b>AS 3(2,2)</b>
<b>Acting II:</b> PR: TPP 2110 or C.I. Continuation of TPP 2110. May be repeated for credit.	
<b>TPP 3310</b>	<b>AS 3(2,2)</b>
<b>Directing I:</b> PR: TPP 2110 or C.I. Fundamental principles of theatrical directing. Each student to direct short scenes and a one-act play for laboratory presentation and critique.	
<b>TPP 4150</b>	<b>AS 3(2,2)</b>
<b>Scene Study and Character Development:</b> PR: C.I. The study, development and training of performance skills, with an emphasis on scene study and character development.	

<b>TPP 4260</b>	<b>AS 3(2,2)</b>
<b>Acting III:</b> PR: C.I. Entry by audition. Advanced study of the problems and techniques of auditioning, creating and developing subtext, and acting in specialized forms.	
<b>TPP 4311</b>	<b>AS 3(2,2)</b>
<b>Directing II:</b> PR: C.I. Techniques of period styles directing. Cuttings from Greek theatre, Shakespeare, Restoration, Experimental, and Musical theatre will be presented and criticized in a laboratory format.	
<b>TSL 5140</b>	<b>3</b>
<b>ESOL Strategies:</b> 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.	
<b>TTE 4004</b>	<b>EN 3(3,0)</b>
<b>Transportation Engineering:</b> PR: EGN 3613 and STA 3032. Investigation of all forms of transport-highway, rail, water, air. Systems approach to planning, design, construction, operation, and administration of transportation networks.	
<b>TTE 4601</b>	<b>EN 2(1,2)</b>
<b>Urban Systems Design.</b> PR: TTE 4004. Project course on design of transportation and urban systems using engineering design methodologies.	
<b>TTE 5204</b>	<b>EN 3(3,0)</b>
<b>Traffic Engineering:</b> PR: TTE 4004. Study of operator and vehicle characteristics, and design for street capacity, signals, signs, and markings.	
<b>TTE 5205</b>	<b>EN 3(3,0)</b>
<b>Highway Capacity and Traffic Flow Analysis:</b> PR: TTE 4004.	
<b>TTE 5805</b>	<b>EN 3(3,0)</b>
<b>Geometric Designs of Transportation Systems:</b> PR: TTE 4004. Study of geometric and construction design elements in the engineering of transportation systems.	
<b>TTE 5835</b>	<b>EN 3(3,0)</b>
<b>Pavement Design:</b> PR: CEG 4101C. Pavement types, wheel loads, stresses in pavement components, design factors such as traffic configurations, environment, and economy.	
<b>VIC 3000</b>	<b>AS 3(3,0)</b>
<b>Visual Communication:</b> A study of the visual system of man and the influences of the visual media on modern society.	
<b>ZOO 2010C</b>	<b>AS 4(2,4)</b>
<b>General Zoology:</b> PR: High school biology or C.I. Introduction to zoology; structure, function and representative groups; current concepts in zoological sciences.	
<b>ZOO 3303C</b>	<b>AS 4(2,6)</b>
<b>Vertebrate Zoology:</b> PR: 6 hours of zoology or C.I. Evolution and classification followed by an introduction to vertebrate ecology, natural history, and behavior.	
<b>ZOO 3713C</b>	<b>AS 5(3,6)</b>
<b>Comparative Vertebrate Anatomy:</b> PR: ZOO 2010C. The vertebrate animals, relationship of organs and systems, and their phylogenetic significance.	
<b>ZOO 3733C</b>	<b>HPA 4(3,3)</b>
<b>Human Anatomy:</b> PR: BSC 2010C or equivalent. Structure of the human body.	
<b>ZOO 4203C</b>	<b>AS 4(3,3)</b>
<b>Invertebrate Zoology:</b> PR: 8 hours of biology or C.I. Taxonomy, anatomy and ecology of the invertebrate animals.	
<b>ZOO 4603C</b>	<b>AS 5(3,4)</b>
<b>Embryology/Development:</b> PR: 8 hours of biology or C.I. Concepts of developmental processes. Emphasis on embryology of vertebrates.	
<b>ZOO 4753C</b>	<b>HPA 5(4,4)</b>
<b>Vertebrate Histology:</b> PR: BSC 2010C and ZOO 2010C. Microanatomical detail plus appropriate developmental and functional considerations of major cell types, primary tissues, organs, and organ systems. Survey of modern animal-tissue microtechnique.	
<b>ZOO 4880C</b>	<b>AS 4(2,6)</b>
<b>Fisheries Management:</b> PR: ZOO 2010C or C.I. Fisheries Management of freshwater environments to include identification, sampling methods, farming and hatchery operations, propagation and population estimates.	
<b>ZOO 5456C</b>	<b>AS 4(2,6)</b>
<b>Ichthyology:</b> PR: ZOO 3303C or C.I. Introduction to the biology of the fishes, their classification, evolution, and life histories.	
<b>ZOO 5463C</b>	<b>AS 4(2,6)</b>
<b>Herpetology:</b> PR: 6 hours of zoology or C.I. Introduction to the biology of the amphibians and reptiles, their classification, evolution, and life histories.	
<b>ZOO 5475C</b>	<b>AS 4(2,6)</b>
<b>Ornithology:</b> PR: 6 hours of zoology or C.I. Introduction to the biology of birds, their classification, evolution, and life histories.	
<b>ZOO 5483C</b>	<b>AS 4(2,6)</b>
<b>Mammalogy:</b> PR: 6 hours of zoology or C.I. Introduction to the biology of mammals, their classification, evolution, and life histories.	



ZOO 5745C

HPA 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 3(3,0)

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 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

ZOO 5815

# FACULTY

The date indicates the first year of employment at the University of Central Florida.

- ABBOTT, DAVID W.**, *Professor of Psychology*  
(1968), B.A., M.S., Ph.D. (University of Massachusetts)
- ABEL, EILEEN M.**, *Assistant Professor of Social Work*  
(1978), A.B., M.S.W. (University of Maryland)
- ABRAMOWITZ, BENJAMIN L.**, *Instructor of Management*  
(1983), M.B.A. (George Washington University)
- ACIERNO, LOUIS J.**, *Professor of Health Sciences*  
(1981), B.S., M.D. (Georgetown University)
- ADICKS, RICHARD R.**, *Professor of English*  
(1968), B.A.E., M.A., Ph.D. (Tulane University)
- ALLEN, JEFFERY W.**, *Assistant Professor of Marketing*  
(1990), B.S., M.B.A., D.B.A. (University of Kentucky)
- ALLEN, KAY WILLIAMSON**, *Assistant Professor of Education*  
(1990), B.S., M.Ed., Ph.D., (University of South Carolina)
- ALLISON, ANNE MARIE**, *Director of Libraries*  
(1983), B.A., M.A.L.S. (Rosary College)
- ALSAKA, Y. A.**, *Assistant Professor of Engineering*  
(1986), B.S., M.S., Ph.D. (University of Florida)
- AMATANGELO, JUDITH**, *Visiting Assistant Professor, Exceptional and Physical Education*  
(1991), (Ball State University)
- ANDERSEN, SUSAN M.**, *Assistant Professor of Communication*  
(1988), B.A., M.A., Ed.D., (University of Central Florida)
- ANDERSON, B. BETTY**, *Professor of Education*  
(1968), B.A., M.A., Ed.D. (University of Maryland)
- ANDERSON, HENRY R.**, *Professor of Accounting*  
(1983), B.A., M.S., Ph.D. (University of Missouri - Columbia), C.P.A., C.M.A., C.C.A.
- ANDERSON, LOREN A.**, *Associate Professor of Engineering*  
(1982), B.S., M.S.E., Ph.D. (University of Dayton), P.E. (Florida and Ohio)
- ANDREWS, JOSEPH C.**, *Head, Collection Development and Acquisitions Department and Associate University Librarian*  
(1988), B.A., M.A., M.L.S. (North Carolina Central University)
- ANDREWS, LARRY C.**, *Professor of Mathematics*  
(1972), B.S., M.S., Ph.D. (Michigan State University)
- ANTHONY, JOBY M.**, *Associate Professor of Mathematics*  
(1970), B.S., M.A.M., Ph.D. (North Carolina State University)
- ARISTIQUETA, MARIA P.**, *Instructor of Public Service Administration*  
(1988), B.S.W., M.P.A., (University of South Florida)
- ARMACOST, ROBERT**, *Assistant Professor of Engineering*  
(1991), B.S., M.S., D.Sc. (George Washington University)
- ARMSTRONG, JOHN H.**, *Associate Professor of Education*  
(1970), B.S., M.S., Ed.D. (Oklahoma State University)
- ARMSTRONG, LEE H.**, *Associate Professor of Mathematics*  
(1968), B.A., M.S., Ph.D. (Florida State University)
- ARNOLD, ROBERT L.**, *Director of Instructional Resources and Professor of Communication*  
(1968), B.A., M.A., Ph.D. (Ohio University)
- ASHLEY, ROBERT A.**, *Assistant Professor of Hospitality Management*  
(1984), B.S., M.S. (Florida International University)
- ASTRO, RICHARD**, *Provost and Vice President of Academic Affairs and Professor of English*  
(1986), B.A., M.A., Ph.D., (University of Washington)
- ATKINSON, STANLEY M.**, *Associate Professor of Finance*  
(1981), B.B.A., M.B.A., D.B.A. (Mississippi State University)



- AVERY, CLARENCE G.**, *Visiting Assistant Professor*  
(1990), B.S., B.A., M.S.A., Ph.D. (University of Illinois), C.P.A. (State of Illinois and Ohio)
- AZIMI, CYRUS**, *Visiting Instructor of Psychology*  
(1985), B.S., M.A., Ph.D. (Michigan State)
- BAILEY, CHARLES D.**, *Peat Marwick Professor of Accounting*  
(1991), B.B.A., M.B.A., M.P.A., Ph.D. (Georgia State University)
- BAILEY, REBECCA A.**, *Associate Professor of Education*  
(1988), B.S., M.A., Ph.D. (Florida State University)
- BAIN, JANICE W.**, *Head, Access Services Department and University Librarian*  
(1986), B.A., M.L.S. (University of Maryland)
- BALADO, CARL**, *Assistant Professor of Education*  
(1987), B.A., M.S., M.Ed., Ed.D. (Florida Atlantic University)
- BALLARD, R. ROCHELLE**, *Assistant University Librarian*  
(1989), B.S., M.L.S. (University of Maryland)
- BANDY, DALTON D.**, *Professor of Accounting*  
(1985), B.S., M.B.A., Ph.D. (The University of Texas at Austin), C.P.A.
- BARNES, BETH**, *Associate Professor of English*  
(1975), B.A., M.A., Ph.D. (University of North Carolina at Chapel Hill)
- BARR, CAROL J.**, *Director and Instructor of Health Sciences*  
(1986), B.S., M.A. (University of Central Florida)
- BARSCH, KARL-HEINRICH**, *Associate Professor of Foreign Languages and Literatures*  
(1977), B.A., M.A., Ph.D. (University of Colorado)
- BASS, MICHAEL**, *Vice President of Research and Professor of Engineering Science*  
(1987) B.S., M.S., Ph.D. (University of Michigan)
- BASSIOUNI, MOSTAFA**, *Associate Professor of Computer Science*  
(1981), B.S., M.S., Ph.D. (Pennsylvania State University)
- BATARSEH, ISSA E.**, *Assistant Professor of Engineering*  
(1991), B.S., M.S., Ph.D. (University of Illinois at Chicago)
- BAUER, CHRISTIAN S., JR.**, *Chair, Department of Computer Engineering and Professor of Engineering*  
(1970), B.S.I.E., M.S.E., Ph.D. (University of Florida), P.E. (Florida)
- BAUMBACH, DONNA J.**, *Professor of Education*  
(1978), B.S., M.S., Ed.D. (Indiana University)
- BAZEMORE, NORRIS S.**, *Associate University Librarian*  
(1984), B.A., M.A., M.L.S. (University of South Carolina)
- BEADLE, JAMES S.**, *Associate Professor of Education*  
(1968), B.S., M.S., Ph.D. (Michigan State University)
- BECK, BARRY F.**, *Director, Florida Sinkhole Research Institute*  
(1983), B.S., M.S., Ph.D. (Rice University), P. Geol. (Georgia)
- BECK, JAMES K.**, *Associate Professor of Engineering*  
(1970), B.S.A.E., M.S.E. (University of Central Florida), P.E. (Florida)
- BECK, KENNETH M.**, *Assistant Professor of Chemistry*  
(1991), B.A., M.A., Ph.D. (University of Illinois at Chicago)
- BECKER, DONALD C.**, *Assistant Professor of Criminal Justice*  
(1976), B.A., M.Ed. (Wayne State University)
- BECKER, STEPHEN**, *Distinguished Lecturer in English*  
(1986), B.A. (Harvard College)
- BELKERDID, MADJID A.**, *Associate Professor of Engineering*  
(1979), B.S.E., M.S.E., Ph.D. (University of Central Florida), P.E. (Florida)
- BELL, KATHLEEN**, *Associate Professor of English*  
(1991), B.S., M.Ed., Ph.D. (Arizona State)
- BELL, MARTHA**, *Associate Professor of Education*  
(1989), B.A., M.A., Ed.S., Ph.D. (University of Florida)
- BENSON, CYNTHIA**, *Instructor of Political Science*  
(1985), B.S., M.A. (Ohio University)
- BERGNER, JOHN F., JR.**, *Professor of Health Sciences*  
(1985), B.S., M.S.P.H., Ph.D., M.P.H. (University of North Carolina)
- BERRINGER, ORVILLE M.**, *Professor of Molecular Biology and Microbiology*  
(1981), B.S., M.S., Ph.D. (University of Oregon)

- BIEGEL, JOHN E.**, *Professor of Engineering*  
(1982), B.S.I.E., M.S.E.S., Ph.D. (Syracuse University), P.E. (Florida and New Mexico)
- BIRAIMAH, KAREN L.**, *Associate Professor of Education*  
(1985), B.A., M.A., M.S.Ed., Ph.D. (State University of New York at Buffalo)
- BISHOP, PATRICIA J.**, *Professor of Engineering*  
(1978), B.S.E., M.S.M.E., Ph.D. (Purdue University), P.E. (Florida)
- BLAIR, TIMOTHY R.**, *Assistant Dean, College of Education and Professor of Education*  
(1991), B.S., M.S., Ph.D. (University of Illinois)
- BLAU, BURTON I.**, *Associate Professor of Psychology*  
(1972), B.A., M.A., Ph.D. (Southern Illinois University)
- BLEDSON, ROBERT L.**, *Professor of Political Science*  
(1968), A.B., M.A., Ph.D. (University of Florida)
- BLOCK, DAVID L.**, *Director, Florida Solar Energy Center and Professor of Engineering*  
(1968), B.S., M.S., Ph.D. (Virginia Polytechnic Institute), P.E. (Florida)
- BLUME, DELORYS M.**, *Associate Professor of Education*  
(1972), B.S., M.A., Ed.S., Ed.D. (University of Florida)
- BOGUMIL, WALTER A., JR.**, *Associate Professor of Management*  
(1972), B.S., M.B.A., Ph.D. (University of Georgia)
- BOJACK, JOCELYN C.**, *Visiting Instructor of Marketing*  
(1988), B.B.A., M.B.A. (Delta State University)
- BOLEMON, JAY S.**, *Associate Professor of Physics*  
(1968), B.S., Ph.D. (University of South Carolina)
- BOLLET, ROBERT M.**, *Associate Professor of Education*  
(1973), B.S., M.S., Ed.D. (Ball State University)
- BOLTE, JOHN R.**, *Vice President, Administration and Finance and Professor of Physics*  
(1968), B.A., M.A., M.S., Ph.D. (State University of Iowa)
- BOREMAN, GLENN D.**, *Associate Professor of Engineering*  
(1984), B.S., M.S., Ph.D. (University of Arizona), P.E. (Florida)
- BOSE, SUBIR K.**, *Professor and Chair, Department of Physics*  
(1987), B.Sc., M.Sc., Ph.D. (University of Allahabad)
- BOSTON, RALPH C.**, *Director of Community College Relations*  
(1967), B.S., Ed.M. (University of Buffalo)
- BOYER, DOROTHY M.**, *Assistant Professor of Social Work*  
(1990), A.B., M.S.W., M.P.H. (University of Pittsburgh)
- BOYTE, JUDITH P.**, *Director, Office of Academic Support and Information Services*  
(1984), B.A., M.P.A. (University of Central Florida)
- BOZEMAN, WILLIAM C.**, *Chair, Educational Services and Professor of Education*  
(1985), B.A., M.Ed., Ph.D. (University of Wisconsin)
- BRAIN, PRISCILLA V.**, *Instructor in English*  
(1984), B.A., M.A. (University of Central Florida)
- BRAUN, BRADLEY M.**, *Associate Professor of Economics*  
(1986), B.S., M.A., Ph.D. (Tulane University)
- BRAY, DENNIS W.**, *Assistant Professor of Military Science*  
(1989), B.S. (Arizona State University)
- BRENNAN, DAVID C.**, *Assistant Professor of Legal Studies*  
(1983), B.S., J.D. (University of Florida)
- BRENNAN, JOHN J.**, *Professor of Physics*  
(1968), B.S., M.S., Ph.D. (Georgia Institute of Technology)
- BRIGHAM, ROBERT C.**, *Professor of Mathematics and Computer Science*  
(1970), B.S., M.S., Ph.D. (New York University)
- BROCK, TIMOTHY R.**, *Assistant Professor of Aerospace Studies*  
(1990), B.A., M.A. (Central Missouri State University)
- BRODIE, LYMAN A.**, *Associate Professor of Music*  
(1990), B.A., M.M.E. (North Texas State University)
- BROPHY, JAMES C.**, *Associate Professor of Psychology*  
(1969), B.A., Ph.D. (Vanderbilt University)
- BROWN, HAROLD K.**, *Assistant Professor of Engineering*  
(1985), B.S., M.S., Ph.D. (Ohio State University)



- BROWN, WILLIAM R.**, *Professor of Sociology*  
(1972), B.S., M.S., Ph.D. (Purdue University)
- BROWNE-KRIMSLEY, VALERIE A.**, *Coordinator and Assistant Professor - Brevard Campus*  
(1989) M.A. (New York University)
- BRUMBAUGH, DOUGLAS K.**, *Professor of Education*  
(1969), B.S., M.Ed., Ed.D. (University of Georgia)
- BUCHOFF, RITA B.**, *Instructor of Education*  
(1989) B.A., M.A., Ed.D. (University of Florida)
- BURNETTE, CHARLES D.**, *Instructor in Management*  
(1977), B.S., M.B.A. (Northwest Missouri State University)
- BURROUGHS, WAYNE A.**, *Professor of Psychology*  
(1969), B.A., M.A., Ph.D. (University of Tennessee)
- BUTLER, JOHN F.**, *Associate Professor of Communication*  
(1971), B.A., M.A., Ph.D. (University of Florida)
- BYERS, ROBERT M.**, *Assistant Professor of Aerospace Engineering*  
(1991), B.S., M.S., Ph.D. (Texas A & M University) E.I. (Texas)
- BYERS, WILLIAM S.**, *Program Coordinator-Electronics Engineering Technology, Professor of Engineering Technology*  
(1984), B.E.E., B.A., M.B.A., M.Eng., M.Ed., D.Eng., Ed.D. (Nova University), P.E. (Florida)
- CALDWELL, C. DENISE**, *Associate Professor of Physics*  
(1985), B.S., M.A., M.Ph., Ph.D. (Columbia University)
- CALI, JAMES**, *Assistant Professor of Theatre*  
(1990), B.A., M.F.A. (University of Pittsburgh)
- CALLARMAN, MARY HELEN**, *Director of Academic Support, Undergraduate Studies*  
(1985), B.A., M.A., Ed.S., Ed.D. (Florida Atlantic University)
- CALLARMAN, WILLIAM G.**, *Associate Professor of Management*  
(1972), B.B.A., M.B.A., Ph.D. (Arizona State University)
- CAMP, DONNA J.**, *Assistant Professor of Education*  
(1989) B.A., M.Ed., Ph.D. (University of Oklahoma)
- CARON, RICHARD M.**, *Assistant Professor of Mathematics*  
(1972), B.A., Ph.D. (Louisiana State University)
- CARROLL, WILLIAM F.**, *Professor of Engineering*  
(1985), B.S., M.S., Ph.D. (University of Illinois), P.E. (California, Florida and Illinois)
- CATANIA, MEM T.**, *Assistant University Librarian, Brevard Campus*  
(1990), B.A., M.L.S. (University of Pittsburgh)
- CELSO, ANTHONY**, *Assistant Professor of Political Science*  
(1990), B.A., M.A., Ph.D. (Ohio State University)
- CERVONE, ANTHONY V.**, *Professor of Foreign Languages and Literatures*  
(1968), B.A., Ph.D. (St. Louis University)
- CHAI, BRUCE**, *Professor of Physics*  
(1989), B.S., Ph.D. (Yale University)
- CHANDRASEKHARAN, NARAYANAN**, *Professor of Computer Science*  
(1990), B.E., B.S., M.E., Ph.D. (Clemson University)
- CHARBA, JULIUS F.**, *Associate Professor of Molecular Biology and Microbiology and Preprofessional Coordinator*  
(1969), B.S., M.S., Ph.D. (Washington State University)
- CHASE, ARLEN F.**, *Associate Professor of Anthropology*  
(1984), B.A., Ph.D. (University of Pennsylvania)
- CHASE, DIANE Z.**, *Associate Professor of Anthropology*  
(1984), B.A., Ph.D. (University of Pennsylvania)
- CHAVDA, JAGDISH J.**, *Acting Chair, Department of Art and Professor of Art*  
(1972), B.F.A., M.F.A. (Michigan State University)
- CHENEY, JOHN M.**, *Associate Professor of Finance*  
(1977), B.B.A., M.B.A., D.B.A. (University of Tennessee)
- CHESSER, JERALD W.**, *Assistant Professor of Hospitality Management*  
(1990), B.A., M.A. (Oklahoma State University)
- CHEW, LARRY**, *Assistant Professor of Engineering*  
(1990), B.A., B.S., M.S., Ph.D. (University of Washington)

- CHOUDHURY, SUDIPTO R.**, *Assistant Professor of Mathematics*  
(1990), B.S., M.S., Ph.D. (Cornell University)
- CHOW, LEE**, *Associate Professor of Physics*  
(1983), B.S., Ph.D. (Clark University)
- CHRISTODOULOU, CHRISTOS G.**, *Associate Professor of Engineering*  
(1984), B.S., M.S., Ph.D. (North Carolina State University)
- CHURTON, MICHAEL W.**, *Chair, Department of Exceptional Education and Physical Education and Professor of Education*  
(1988), B.S., M.Ed., Ed.D., (University of Southern Mississippi)
- CLARK, EUGENE A.**, *Assistant Professor of Education*  
(1969), Ph.B., M.A. (University of Central Florida)
- CLARKE, WENTWORTH**, *Professor of Education*  
(1970), B.S., M.S., Ed.D. (University of Nebraska)
- CLAUSEN, CHRIS A., III**, *Professor of Chemistry*  
(1969), B.S. Ph.D. (Louisiana State University)
- CLAYTON, RONNIE J.**, *Chair, Department of Finance and Associate Professor of Finance*  
(1988), B.S., M.A., Ph.D., (University of Georgia)
- COLBOURN, TREVOR**, *Professor of History*  
(1978), B.A., A.M., M.A., Ph.D. (The Johns Hopkins University)
- COLBY, PETER W.**, *Professor of Public Administration*  
(1985), B.A., Ph.D. (Brandeis University)
- COLEMAN, DANIEL R.**, *Director of Institutional Research and Assistant Professor of Education*  
(1972), B.S., M.S., Ph.D. (Florida State University)
- CONGDON, KRISTIN G.**, *William and Alice M. Jenkins Endowed Chair in Community Arts and Associate Professor of Art*  
(1989) B.A., M.S., Ph.D., (University of Oregon)
- COOK, IDA J.**, *Associate Professor of Sociology*  
(1976), B.A., M.S., Ph.D. (North Carolina State University)
- COOK, KATHY S.**, *Assistant Professor of Legal Studies*  
(1983), B.A., J.D. (University of Florida)
- COOPER, C. DAVID**, *Professor of Engineering*  
(1980), B.S., M.S., Ph.D. (Clemson University), P.E. (Florida, Texas)
- COPE, JAMES R.**, *Visiting Assistant Professor, Instructional Programs*  
(1991), B.S.E.D., M.Ed., Ed.D. (University of Georgia)
- CORNELL, RICHARD A.**, *Associate Professor of Education*  
(1974), B.S., M.S.Ed., Ed.D. (Nova University)
- CORNETT, JEFFREY W.** *Assistant Professor of Education*  
(1989) B.S., M.Ed., Ph.D. (Ohio State University)
- COTTRELL, LARRY K.**, *Associate Professor of Computer Science*  
(1976), B.S., M.S., Ph.D. (Purdue University)
- COVELLI, MAUREEN M.**, *Instructor of Nursing*  
(1989), B.S., M.A. (New York University)
- COWGILL, ROBERT G.**, *Professor of Education*  
(1969), B.S., M.S., Ph.D. (Indiana State University)
- CRANT, PHILLIP**, *Acting Chair, Department of Foreign Languages & Literatures, Associate Professor of Foreign Languages & Literatures*  
(1989), B.A., M.A., Ph.D. (Louisiana State University)
- CREPEAU, RICHARD C.**, *Acting Chair, Department of History and Professor of History*  
(1972), B.S., M.A., Ph.D. (Florida State University)
- CRITTENDEN, DANIEL J.**, *Assistant Professor of Health Sciences*  
(1982), B.A., M.S., Ph.D. (University of North Dakota)
- CROSS, ARTHUR**, *Associate Professor of Exceptional and Physical Education*  
(1990), A.B., M.Ed., Ph.D. (University of North Carolina)
- CROSS, LEE**, *Associate Professor of Exceptional & Physical Education*  
(1990), Ph.D. (University of North Carolina at Chapel Hill)
- CROWE, RONALD C.**, *Visiting Instructor of Economics*  
(1990), M.A.E. (University of Central Florida)
- CUNNINGHAM, GLENN N.**, *Professor of Chemistry*  
(1969), B.S., M.S., Ph.D. (North Carolina State University)



- CUTCHINS, CONSTANCE E.**, *Instructor in Statistics*  
(1985), B.A., M.A. (Pennsylvania State University)
- DALY, TIMOTHY P.**, *Assistant Professor of Education*  
(1989) B.S., M.A., Ph.D. (University of Alabama)
- DANKO-MCGHEE, KATHERINE E.**, *Assistant Professor of Education*  
(1989) B.A., M.A., Ph.D. (Ohio State University)
- DAVIS, DUANE L.**, *Acting Chair, Department of Marketing and Professor of Marketing*  
(1978), B.S., M.B.A., D.B.A. (University of Kentucky, Lexington)
- DAVIS, ROBERT H.**, *Professor of Communication*  
(1977), B.A., M.A., Ph.D. (Ohio State University)
- DAY, A. EDWARD**, *Associate Professor of Economics*  
(1983), B.A., M.A., M.S., Ph.D. (Purdue University)
- DEANE, PAUL D.**, *Assistant Professor of English*  
(1986), B.A., M.A., Ph.D. (University of Chicago)
- DEBNATH, LOKENATH**, *Chair, Department of Mathematics and  
Professor of Mathematics*  
(1983), B.S., M.S., Ph.D., D.I.C., Ph.D. (University of London)
- DEBO, JOHN C.**, *Program Coordinator-Computer Engineering Technology,  
Lecturer in Engineering Technology*  
(1979), B.S.E.E., M.Ed., M.S.E. (University of Central Florida), P.E. (Florida)
- DECKER, BERNWARD**, *Assistant Professor of Foreign Languages and Literatures*  
(1989), B.A., M.A., Ph.D. (Cornell University)
- DEES, DAVID R.**, *Assistant Dean, Undergraduate Studies and Associate  
Professor of Sociology*  
(1972), B.A., M.A., Ph.D. (University of Notre Dame)
- DE LOACH, BERNARD C., JR.**, *Professor of Engineering*  
B.S., M.S., Ph.D. (Ohio State University)
- DEL-RIO, MARCELLA**, *Assistant Professor of Foreign Languages and Literatures*  
(1990), B.A., M.A., Ph.D. (University of California-Irvine)
- DENHARDT, KATHRYN G.**, *Assistant Professor of Public Administration*  
(1992), B.S., M.A., Ph.D. (University of Kansas)
- DENHARDT, ROBERT B.**, *Chair and Professor of Public Administration*  
(1991), B.A., M.A., Ph.D. (University of Kentucky)
- DENNING, RICHARD G.**, *Program Coordinator-Operations Engineering Technology,  
Professor of Engineering Technology*  
(1976), B.M.E., M.S., Ed.D. (University of Georgia), P.E. (Florida, Georgia)
- DEO, NARSINGH**, *Professor of Computer Science, Millican Chair*  
(1986), B.Sc., B.Sc., M.S., Ph.D. (Northwestern University)
- DESAI, VIMAL H.**, *Associate Professor of Engineering*  
(1984), B.S., M.S., Ph.D. (The Johns Hopkins University), P.E. (Florida)
- DICKS, DIANA M.**, *Assistant Director and Instructor, Small Business Development Center*  
(1985), B.S. M.B.A. (University of Central Florida)
- DIETZ, JOHN D.**, *Associate Professor of Engineering*  
(1982), B.S., M.S., Ph.D. (Clemson University), P.E. (Florida, Mississippi)
- DIPIERRO, JOHN C.**, *Associate Professor of Foreign Languages and Literatures*  
(1970), A.B., M.A., Ph.D. (University of Kansas)
- DIXON, GEORGE J.**, *Assistant Professor of Engineering*  
(1989) B.S., B.S., M.S., Ph.D. (University of South Florida)
- DIXON, JOSEPH H. JR.**, *Program Coordinator-Design Engineering Technology,  
Associate Professor of Engineering Technology*  
(1983), B.S., M.S. (Iowa State University), P.E. (Florida and five other states)
- DONNELLY, JEROME J.**, *Associate Professor of English*  
(1970), A.B., M.A., Ph.D. (University of Michigan)
- DORNER, JOYCE E.**, *Associate Professor of Nursing*  
(1980), R.N., M.S.N. (University of Florida)
- DOUGLASS, SHARON E.**, *Associate Professor of Health Sciences*  
(1980), B.S., M.S. (University of New York at Buffalo)
- DOWNING, JOHN H.**, *Visiting Assistant Professor, Exceptional Child*  
(1990), B.S., M.S., Ph.D. (University of Oregon)
- DRISCOLL, JAMES R.**, *Associate Professor of Computer Science*  
(1976), B.S., M.S., Ph.D. (University of Kansas)



- DRISCOLL, ROBERTA L.**, *Associate Professor of Education*  
(1982), B.S., M.S., Ed.D. (The George Washington University)
- DRUMHELLER, OLIVER J.**, *Program Director of Cardiopulmonary Sciences and Visiting Instructor*  
(1991), B.A., M.S. (University of Central Florida)
- DUFFEY, JEFFERSON S.**, *Assistant Professor of Criminal Justice*  
(1971), A.B., M.P.A. (Florida Atlantic University)
- DUTTON, RONALD D.**, *Professor of Computer Science*  
(1972), B.S., M.S., Ph.D. (Washington State University)
- DYCK, JENNIFER L.**, *Assistant Professor of Psychology*  
(1990), B.A., M.A., Ph.D. (University of California, Santa Barbara)
- DZIUBAN, CHARLES D.**, *Professor of Education*  
(1970), B.S., M.Ed., Ph.D. (University of Wisconsin)
- EDWARDS, M. JO**, *Associate Dean, College of Health and Public Affairs and Associate Professor of Health Sciences*  
(1976), RT (ARRT), B.S., M.Ed., Ed.D. (University of Florida)
- EDWARDS, THOMAS J., III**, *Director and Associate Professor of Radiologic Sciences*  
(1980) RT (ARRT), B.S., B.S.R.T., M.A. Ed.D. (University of Central Florida)
- EHRHART, LLEWELLYN M.**, *Professor of Biology*  
(1969), A.B., Ph.D. (Cornell University)
- ELIAS, LUIS R.**, *Professor of Physics*  
(1988) B.A., M.S., Ph.D. (University of Wisconsin-Madison)
- ELLIS, E. TAYLOR**, *Associate Professor of Hospitality Management*  
(1990), B.S., M.S., Ph.D. (Texas A & M University)
- ELSHEIMER, SETH R.**, *Associate Professor of Chemistry*  
(1985), B.S., Ph.D. (University of Florida)
- ELSHENNAWY, AHMAD K. M.**, *Associate Professor of Engineering*  
(1986), B.S., M.S., M.Eng., Ph.D., (Pennsylvania State University)
- ENGERT, C. BARTH**, *Assistant to the Dean, Office of Undergraduate Studies*  
(1968), B.A., M.A. (Columbia University)
- ENO, BURTON E.**, *Professor of Engineering*  
(1979), B.S., M.S., Ph.D. (Cornell University), P.E. (Florida)
- EPLEY, GLEN B.**, *Visiting Assistant Professor of Educational Leadership*  
(1990), B.S., M.Ed., Ph.D. (Duke University)
- ERICSON, SHIRLEY C.** *Instructor of Education*  
(1989) B.A., Ed.D. (Washington State University)
- EUBANK, LEE E.**, *Professor of Music*  
(1973), B.M., M.M., Ph.D. (Indiana University)
- EUBANKS, CLIFFORD L.**, *Professor of Management*  
(1975), B.S., M.B.A., Ph.D. (University of Arkansas)
- EVANS, JOHN L.**, *Associate Professor of History*  
(1972), B.A., M.A., Ph.D. (University of North Carolina)
- EVANS, THOMAS G.**, *Director, School of Accounting and Professor of Accounting*  
(1990), B.S., M.B.A., Ph.D. (Michigan State University)
- EVERETT, JR., ROBERT M.**, *Assistant Professor of Science Education*  
(1990), B.S., M.S., Ph.D. (University of Southern Mississippi)
- EYFELLS, JOHANN K.**, *Professor of Art*  
(1969), B. Arch., M.F.A. (University of Florida)
- FABIANIC, DAVID A.**, *Chair, Department of Sociology and Anthropology and Professor of Sociology*  
(1985), B.A., M.S., Ph.D. (University of Iowa)
- FANDT, PATRICIA M.**, *Associate Professor of Management*  
(1986), B.S., M.B.A., Ph.D. (Texas A&M University)
- FARINA, ANNA C.**, *Instructor in Music*  
(1980), B.M., M.E. (University of Central Florida)
- FARSAD, BEHSHID**, *Assistant Professor of Hospitality Management*  
(1986), B.S., M.S. (Iowa State University)
- FEDLER, FREDERIC E.**, *Professor of Communication*  
(1971), B.S., M.A., Ph.D. (University of Minnesota)
- FERNALD, LLOYD W. JR.**, *Associate Professor of Management*  
(1983), B.S., M.S., D.B.A., (The George Washington University)



- FERNANDEZ, ABEL A.**, *Assistant Chair and Instructor*  
(1990), B.S.E.E., M.S.E.E., M.B.A. (Rensselaer Polytechnic Institute) P.E. (Texas)
- FERNANDEZ, JOSE B.**, *Professor of History and Professor of Foreign Languages and Literatures*  
(1981), B.A., M.A., Ph.D. (Florida State University)
- FERNANDEZ, PAUL J.**, *Instructor of Mathematics*  
(1990), B.S., M.S. (University of Central Florida)
- FETSCHER, ELMAR B.**, *Professor of History*  
(1971), B.A., M.Ed., M.A., Ph.D. (University of Georgia)
- FINE, TERRI S.** *Assistant Professor of Political Science*  
(1989), B.A., M.A., Ph.D. (University of Connecticut)
- FISHER, RANDY D.**, *Associate Professor of Psychology*  
(1971), B.A., Ph.D. (Vanderbilt University)
- FISK, RAYMOND P.**, *Associate Professor of Marketing*  
(1989), B.S., M.B.A., Ph.D. (Arizona State University)
- FLAMMIA, MADELYN**, *Assistant Professor of English*  
(1990), B.A., M.A., Ph.D. (Rutgers University)
- FLICK, ROBERT G.**, *Professor of Humanities*  
(1968), B.S., M.A., Ph.D. (University of Florida)
- FOWLES, KEITH**, *Instructor of Radio-Television*  
(1982), B.A. (University of Maine)
- FRANKS, JEFFREY A.**, *Assistant Head, Reference Department and Assistant University Librarian*  
(1987), B.A., M.L.S. (Kent State University)
- FREDERICK, TERRY J.**, *Interim Chair, Department of Computer Science and Professor of Computer Science*  
(1975), B.S., M.S., Ph.D. (University of Wisconsin)
- FULLER, DONALD A.**, *Associate Professor of Marketing*  
(1972), BSIM, M.B.A., Ph.D. (Georgia State University)
- GARD, DIANE**, *Visiting Instructor, Instructional Programs*  
(1991), B.A., M.S. (Marywood College)
- GARDNER, JERRY Y.**, *Associate Professor of Music*  
(1980), B.M., M.M. (Boston University)
- GASTON, S. EVON**, *Instructor, Student Internships and Records*  
(1990), B.S. (University of Cincinnati)
- GAUDNEK, WALTER**, *Professor of Art*  
(1970), Diploma, M.A., Ph.D. (New York University)
- GAY, DAVID**, *Assistant Professor of Sociology*  
(1989), B.A., M.A., Ph.D. (Duke University)
- GENNARO, ROBERT N.**, *Chair and Associate Professor of Molecular Biology and Microbiology*  
(1969), B.S., M.S., Ph.D. (Texas A&M University)
- GEORGE, THOMAS E. III**, *Instructor of English*  
(1986), B.A., M.A. (University of Central Florida)
- GEORGIPOULOS, MICHAEL**, *Associate Professor of Engineering*  
(1986), DIPL.E., M.S., Ph.D. (University of Connecticut)
- GERBER, HOMER C.**, *Associate Professor of Computer Science*  
(1968), B.S., M.A., Ph.D. (Florida State University)
- GERGLEY, GERALD R.**, *Associate Professor of Education*  
(1970), Ed.B., Ed.M. (State University of New York)
- GIBBS, W. ERNEST**, *Assistant Professor of Economics*  
(1987), B.S., M.B.A., M.A., Ph.D. (Rutgers University)
- GILLET, PETER L.**, *Professor of Marketing*  
(1979), B.A., B.S.C., M.B.A., Ph.D. (Michigan State University)
- GILSON, RICHARD**, *Professor of Psychology*  
(1985), B.S., M.S., Ph.D. (Princeton University)
- GIOVINCO, GINA V.**, *Associate Professor of Nursing*  
(1987), R.N., BSN.Ed., M.A., Ph.D., Ed.D. (Temple University)
- GOLDWATER, PAUL M.**, *Assistant Professor of Accounting*  
(1989), B.C., B.S., Ph.D. (Louisiana State University-Baton Rouge)

- GOMEZ, FERNANDO J.**, *Associate Professor of Computer Science*  
(1981), B.A., M.A., M.A., Ph.D. (Ohio State University)
- GONZALEZ, ALAN F.**, *Assistant Professor of Legal Studies*  
(1990), B.A., M.B.A., J.D., L.L.M. (University of Florida)
- GONZALEZ, AVELINO J.**, *Associate Professor of Engineering*  
(1986), B.S.E.E., M.S.E.E., Ph.D. (University of Pittsburgh), PE (Florida)
- GOODMAN, STEPHEN H.**, *Associate Professor of Management*  
(1984), B.S., M.B.A., Ph.D. (Pennsylvania State University)
- GRAHAM, SHARON S.**, *Associate Professor of Finance*  
(1984), B.S., M.A., M.B.A., D.B.A. (University of Virginia)
- GRASTY, WILLIAM K.**, *Associate Professor of Communication*  
(1968), B.S., M.A., Ph.D. (University of Texas)
- GREEN, CHERYL E.**, *Assistant Professor of Social Work*  
(1978), B.A., M.S.W., Ph.D. (Clark Atlanta University)
- GREENHAW, THOMAS D.**, *Assistant Professor of History*  
(1969), B.A., M.A., Ph.D. (Auburn University)
- GREENWOOD, RICHARD**, *Director of Bands and Assistant Professor of Music*  
(1988), B.M.E., M.M., Ph.D. (University of Northern Colorado)
- GREGG, NEWTON D.**, *Lecturer in Engineering Technology*  
(1984), B.A., B.S.C.E., M.S. (Southern Methodist University), P.E.  
(Florida and Texas)
- GROGAN, AUSTIN L.**, *Associate Professor of Engineering*  
(1986), B.S., M.S., Ph.D. (University of Florida)
- GROVDAHL, ELBA C.**, *University Librarian*  
(1973), B.A., M.S.L.S., A.M.D., Ed.D. (Florida State University)
- GUENTHER, KARL**, *Associate Professor of Engineering Science*  
(1987) B.S., Ph.D. (University of Innsbruck)
- GUHA, RATAN K.**, *Associate Professor of Computer Science*  
(1980), B.S., M.S., Ph.D. (University of Texas)
- GUNNERSON, FRED S.**, *Professor of Engineering*  
(1980), B.S., M.S., Ph.D. (University of New Mexico), P.E. (Florida)
- GUPTA, UMA G.**, *Assistant Professor of Management*  
(1990), B.S., M.S., M.B.A., Ph.D. (University of Central Florida)
- GUPTON, JOHN T., III**, *Professor of Chemistry*  
(1978), B.S., M.S., Ph.D. (Georgia Institute of Technology)
- GURNEY, DAVID W.**, *Associate Professor of Education*  
(1970), B.A., M.A., Ph.D. (Florida State University)
- HAGAN, DAVID J.** *Associate Professor of Physics*  
(1987), B.S., Ph.D. (Heriott Watt University)
- HAGEDOORN, A. HENRY J.**, *Associate Professor of Engineering*  
(1972), B.S., M.S., Ph.D. (Cornell University), P.E. (Florida)
- HAILE, GWEN M.**, *Instructor of English*  
(1984), B.A., M.A. (University of Central Florida)
- HALL, HARRY O.**, *Professor of Education*  
(1967), B.A., M.Ed., Ed.D. (University of Florida)
- HALL, WILLIAM J.**, *Assistant Professor of Communication*  
(1977), B.I.E., M.A. (Purdue University)
- HAMAKER, VICKI C.**, *Assistant University Librarian*  
(1991), B.A., M.L.S. (Florida State University)
- HAMPTON, MICHAEL D.**, *Associate Professor of Chemistry*  
(1981), B.S., Ph.D. (Texas Tech University)
- HANDBERG, ROGER B., JR.**, *Professor of Political Science*  
(1972), B.A., Ph.D. (University of North Carolina)
- HARDEN, RICHARD C.**, *Professor of Engineering*  
(1967), B.M.E., B.E.E., M.S.E., Ph.D. (University of Florida) PE (Florida)
- HARPOLE, CHARLES H.**, *Professor of Communication*  
(1990), Ph.D. (New York University)
- HARRIS, MICHAEL G.**, *Assistant Professor of Engineering*  
(1978), B.S., M.S., D.Sc. (George Washington University), P.E. (Florida)
- HARROW, THOMAS L.**, *Associate Professor of Education*  
(1970), B.S., M.Ed., Ph.D. (Florida State University)



- HARTMAN, J. PAUL**, *Professor of Engineering*  
(1968), B.S., B.S.C.E., S.M., Ph.D. (University of Florida), P.E. (Florida)
- HARVEY, JAMES E.**, *Associate Professor of Engineering*  
(1990), A.B., M.S., Ph.D. (Arizona State University)
- HATFIELD, JOHN D.**, *Associate Dean, College of Business Administration and Professor of Management*  
(1990), B.A., M.A., Ph.D. (Purdue University)
- HEAD, CLARENCE M.**, *Associate Professor of Engineering*  
(1978), B.S., M.S., Ph.D. (University of Georgia), P.E. (Florida, Georgia)
- HEDRICK, DONA LEA**, *Professor of Communicative Disorders*  
(1981), B.A., M.A., Ph.D. (University of Washington)
- HEINONEN, OLLE**, *Assistant Professor of Physics*  
(1989), B.S., Ph.D. (Case Western Reserve University)
- HEINZER, MARTIN N.**, *Associate Professor of Mathematics*  
(1969), B.S., M.S., Ph.D. (Florida State University)
- HEMSCHEMEYER, JUDITH**, *Associate Professor of English*  
(1982), B.A., M.A. (University of Wisconsin)
- HENNIG, LINDA**, *Assistant Professor of Nursing*  
(1989), M.A. (New York University)
- HENRY, RODNEY L.**, *Instructor of Engineering*  
(1984), B.S., M.S. (University of Tennessee), P.E. (Florida)
- HERNANDEZ, DAVID E.**, *Professor of Education*  
(1968), B.S., M.S., Ed.D. (Florida State University)
- HERTEL, GEORGE R.**, *Professor of Chemistry*  
(1968), B.S., M.S., Ph.D. (Johns Hopkins University)
- HIETT, SHARON LEE**, *Associate Professor of Education*  
(1971), B.A.E., M.Ed., Ph.D. (University of Florida)
- HIGGINBOTHAM, PATRICIA E.**, *Associate Professor of Education*  
(1972), B.S., M.S., Ed.D. (University of Alabama)
- HIGGINS-YOUNG, CHRISTINE**, *Instructor in English*  
(1979) B.A., M.A. (University of Central Florida)
- HILL, HELEN Y.**, *Coordinator, Undergraduate Programs, College of Business Administration*  
(1989), B.S.B.A. (University of Central Florida)
- HILL, MARIE**, *Assistant Professor of Education*  
(1990), B.A., M.Ed., Ed.D. (Mississippi State University)
- HINSHAW, CAROLE S.**, *Assistant University Librarian*  
(1989), B.S., M.L.S. (Louisiana State University)
- HITCHCOCK, DORILYN F.**, *Program Director of Medical Laboratory Science and Assistant Professor Health Sciences*  
(1989), B.S., M.T., M.S. (Northeastern University)
- HITT, JOHN C.**, *President of the University and Professor of Psychology*  
(1992), A.B., M.S., Ph.D. (Tulane University)
- HOFFMAN, LORRIE L.**, *Assistant Professor of Statistics*  
(1988) B.S., M.S., Ph.D. (University of Iowa)
- HOFER, RICHARD A.**, *Associate Professor of Economics*  
(1989), B.S., Ph.D. (University of North Carolina-Chapel Hill)
- HOGLIN, JOHN G.**, *Professor of Communication*  
(1974), B.A., M.A., Ph.D. (Wayne State University)
- HOLLAND, KATHIE K.**, *Assistant Director, Small Business Development Center and Instructor of Marketing*  
(1985), B.S.B.A., M.B.A. (University of Central Florida)
- HOLLER, SUZANNE E.**, *University Librarian*  
(1986), B.A., M.L.S. (University of South Florida)
- HOLT, LARRY C.**, *Associate Professor of Education*  
(1988), B.S., Ed.D., (University of Cincinnati)
- HOLTEN, N. GARY**, *Chair and Associate Professor of Criminal Justice and Legal Studies*  
(1972), B.A., M.A., Ph.D. (University of Massachusetts)
- HOOD, SHARON L.**, *University Librarian*  
(1989), B.Sc., M.L.S. (University of Toronto)

- HOOPER, GERARD M.**, *Assistant Professor of Communication (Film)*  
(1991), B.A., M.F.A. (Temple University)
- HOPKINS, MARTHA H.**, *Associate Professor of Education*  
(1983), B.A., M.Ed., Ph.D. (Florida State University)
- HOSLER, E. RAMON**, *Professor of Engineering*  
(1978), B.Ch.E., M.S., Ph.D. (University of Illinois), P.E. (Florida)
- HOSNI, DJEHANE**, *Associate Professor of Economics*  
(1977), B.A., M.A., Ph.D. (University of Arkansas)
- HOSNI, YASSER A.**, *Professor of Engineering*  
(1976), B.S.(M.E.), M.S., Ph.D. (University of Arkansas), P.E. (Florida)
- HOTALING, EDWARD R., JR.**, *Acting Chair and Associate Professor of Music*  
(1969), B.M., Ph.D. (Northwestern University)
- HOUSTON, SANDRA G.**, *Assistant Professor of Psychology*  
(1977), B.A., M.S., Ph.D. (Auburn University)
- HSUEH, L. PAUL**, *Associate Professor of Finance*  
(1989), B.A., M.B.A., Ph.D. (University of Tennessee)
- HUA, KIEN**, *Assistant Professor of Computer Science*  
(1990), B.S., M.S., Ph.D. (University of Illinois)
- HUDSON, LARRY R.**, *Associate Professor of Education*  
(1982) B.S., M.A., Ph.D. (University of Iowa)
- HUDSON, PHYLLIS J.**, *University Librarian*  
(1972), B.A., M.S.L.S. (University of Illinois)
- HUGHES, CHARLES E.**, *Professor of Computer Science*  
(1980), B.A., M.S., Ph.D. (Pennsylvania State University)
- HUNT, MARILYN F.**, *Instructor in Accounting*  
(1971), B.S., M.A. (University of Missouri), C.P.A.
- HURST, JOHN W.**, *Assistant Professor of Mathematics*  
(1968), B.S., M.M. (University of South Carolina)
- HUSEMAN, RICHARD C.**, *Dean, College of Business Administration and Professor of Management*  
(1990), B.A., M.A., Ph.D. (University of Illinois)
- HUTCHINSON, CYNTHIA J.**, *Instructor of Education*  
(1989) B.S., M.A., Ed.D. (Florida Atlantic University)
- HYNES, MICHAEL C.**, *Director of Research and Extended Studies, College of Education and Professor of Education*  
(1971), B.S.Ed., M.Ed., Ph.D. (Kent State University)
- IKPA, VIVIAN WATFORD**, *Assistant Professor of Education*  
(1989) B.S., M.S., Ph.D. (University of Maryland)
- INGRAM, DAVID B.**, *Associate Professor of Communicative Disorders*  
(1974), B.A., M.A., Ph.D. (State University of New York at Buffalo)
- JACKSON, EDSON**, *Instructor of Engineering*  
(1981), Dipl.L.S., B.E., M.S.M., M.S. (University of Central Florida), P.E. (Florida)
- JAFFE, GLORIA W.**, *Assistant Professor of English*  
(1981), B.A., M.A.T. (Rollins College)
- JARVIS, LANCE P.**, *Associate Professor of Marketing*  
(1985), B.B.A., M.B.A., Ph.D. (Pennsylvania State University)
- JASKULSKI, GARY M.**, *Adjunct Instructor of Music*  
(1991), B.A., M.M. (University of Hartford)
- JEFFREY, PAUL**, *Assistant Professor of Communication*  
(1988), B.A., M.A. (University of Missouri)
- JENKINS, DAVID R.**, *Professor of Engineering*  
(1969), B.S.C.E., M.S.E.M., Ph.D. (University of Michigan), P.E. (Ohio, Florida)
- JENSEN, BERNARD**, *Associate Professor of Psychology*  
(1985), B.S., M.A., Ph.D. (Southern Illinois University)
- JOELS, A. ROSE**, *Professor of Education*  
(1978), B.A., M.Ed., Ph.D. (University of Arizona)
- JOHNSON, FRANCES L.**, *Assistant Professor of Communication*  
(1971), A.B., M.A. (University of Kentucky)
- JOHNSON, MARK E.**, *Chair, Department of Statistics and Professor of Statistics*  
(1990), B.A., M.S., Ph.D. (University of Iowa)



- JOHNSON, MARY C.**, *Assistant Professor of Communication (Film)*  
(1991), B.S., M.A., Ph.D. (Ohio State University)
- JOHNSON, MICHAEL D.**, *Assistant Professor of Physics*  
(1990), B.S., Ph.D. (University of Virginia)
- JOHNSON, ROGER W.**, *Assistant Director, South Orlando Campus and Associate Professor of Engineering*  
(1984) B.E.E., M.E.E., Ph.D. (UCLA)
- JOHNSON, WALTER L.**, *Associate Professor of Accounting*  
(1979), B.S., M.B.A., Ph.D. (University of Texas, Austin), C.P.A.
- JOHNSON, WILLIAM H.**, *Professor of Education*  
(1986), B.S., M.Ed., Ph.D. (Kent State University)
- JOHNSON-FREESE, JOAN**, *Associate Professor of Political Science*  
(1981), B.A., M.A., Ph.D. (Kent State University)
- JONES, DANIEL R.**, *Associate Professor of English*  
(1984), B.A., M.A., Ph.D. (Florida State University)
- JONES, DAVID E.**, *Associate Professor of Anthropology*  
(1972), B.A., M.A., Ph.D. (University of Oklahoma)
- JONES, DONALD E.**, *Assistant Professor of Philosophy*  
(1972), B.A., M.A., Ph.D. (University of Oklahoma)
- JONES, FOARD F.**, *Assistant Professor of Management*  
(1989), M.B.A. (Appalachian State University)
- JONES, HALSEY R., JR.**, *Chair, Department of Management and Professor of Management*  
(1982), B.A., M.S., Ph.D. (Pennsylvania State University)
- JONES, JUDY R.**, *Coordinator, Small Business Development Center and Instructor*  
(1988), B.S. (The University of Wisconsin-Milwaukee)
- JONES, ROBERT S.**, *Assistant Professor of Communication (Film)*  
(1991), A.B., M.S., M.F.A. (University of California)
- JONES, ROY C., JR.**, *Assistant Professor of Mathematics*  
(1969), B.S., M.S., Ph.D. (Western Reserve University)
- JUDD, ANDREW J.**, *Assistant Professor of Accounting*  
(1987), B.A.B.A., M.B.A., Ph.D. (University of Florida)
- JUDKINS, B. L.**, *Associate Professor of Nursing*  
(1986), B.S.N., M.Ed., Ed.D. (Columbia University)
- JUGE, FRANK E.**, *Associate Vice President for Academic Affairs and Professor of Chemistry*  
(1968), B.S., Ph.D. (University of Arkansas)
- JURIE, JAY D.**, *Assistant Professor of Public Administration*  
(1986), B.A., M.U.A., M.E.P., D.P.A. (Arizona State University)
- KALLINA, EDMUND F., JR.**, *Associate Professor of History*  
(1970), B.A., M.A., Ph.D. (Northwestern University)
- KAMINSKY, EDDIE**, *Instructor of Business Law*  
(1985), A.B., L.L.B. (University of Georgia)
- KAMRAD, DENNIS R.**, *Director, Liberal Studies Program*  
(1972), B.A., M.A.Ed. (Rollins College)
- KARIMI, SOUSAN**, *Visiting Instructor of Computer Science*  
(1990), B.S., B.S., M.S. (University of Central Florida)
- KASPARIS, TAKIS**, *Assistant Professor of Engineering*  
(1989) B.E.E., M.E.E., Ph.D. (City University of New York)
- KASSAB, ALAIN J.**, *Assistant Professor of Aerospace Engineering*  
(1991), B.S.E.S., M.S., Ph.D. (University of Florida) E.I. (Florida)
- KASSIM, HUSAIN**, *Associate Professor of Philosophy and Religion*  
(1970), B.A., M.A., I.L.L.B., Ph.D. (University of Bonn)
- KAZMERSKI, KENNETH J.**, *Chair, Department of Social Work and Associate Professor of Social Work*  
(1979), B.A., M.S.W., D.S.W. (City University of New York)
- KELLER, KATHERINE Z.**, *Assistant Professor of English*  
(1984), B.A., M.A., Ph.D. (University of Toronto)
- KELLIHER, CHARLES F.**, *Assistant Professor of Accounting*  
(1985), B.S., M.S. (Texas A&M University), C.P.A.

- KENLY, PATRICIA E.**, *Assistant University Librarian*  
(1991), B.S., M.B.A., M.L.S. (University of South Florida)
- KENNEDY, HENRY**, *Professor of Political Science*  
(1971), B.S., M.Ed., M.A., Ph.D. (University of Michigan)
- KERSTEN, ROBERT D.**, *Professor of Engineering*  
(1968), B.S., M.S., Ph.D. (Northwestern University), P.E. (Florida, Arizona, and Oklahoma)
- KHAJENOORI, SOHEIL**, *Assistant Professor of Engineering*  
(1988), B.A., M.S., Ph.D. (University of Central Florida)
- KIEL, DWIGHT**, *Assistant Professor of Political Science*  
(1990), B.A., M.A., Ph.D. (University of Massachusetts)
- KIGER, NANCY**, *Visiting Instructor, Instructional Programs*  
(1991), B.A., M.A.Ed., Ed.D. (Ball State University)
- KIJEK, JEAN C.**, *Chairperson, Department of Nursing and Associate Professor of Nursing*  
(1985), R.N., Ph.D. (New York University)
- KILBRIDE, WADE R.**, *Assistant Professor of Economics*  
(1978), B.S., M.A. Ed.D. (Florida Atlantic University)
- KIM, JIN J.** *Professor of Physics*  
(1988) B.S., M.S., Ph.D. (University of Wisconsin-Madison)
- KIRBY, DANIEL R.**, *Chair, Instructional Programs and Professor of Education*  
(1990), B.A., M.Ed., Ed.D. (University of Colorado)
- KLEE, HAROLD I.**, *Associate Professor of Engineering*  
(1972), B.S., M.S., Ph.D. (Polytechnic Institute of Brooklyn), P.E. (Florida)
- KLINTWORTH, NANCY P.**, *Instructor of Business Law*  
(1985), B.A., M.A., J.D., L.L.M. (University of Florida)
- KLOCK, DAVID R.**, *Professor of Finance*  
(1981), B.S., M.S., Ph.D. (University of Illinois)
- KNAPP, CHRISTINE Z.**, *Assistant, Small Business Development Center*  
(1989), B.A., M.A., (Goddard College)
- KOCH, SHARON**, *Assistant Professor of Nursing*  
(1984), R.N., M.S.N. (Washington University)
- KOEVENIG, JAMES L.**, *Professor of Biology*  
(1971), B.A., M.A., Ph.D. (University of Iowa)
- KOONS, KEITH**, *Assistant Professor of Music*  
(1990), B.M., M.M., D.M.A. (University of Southern California)
- KORSTAD, RICHARD J.**, *Assistant Professor of Criminal Justice*  
(1972), B.S., M.P.A. (University of Georgia)
- KUHN, DAVID T.**, *Professor of Biology*  
(1970), B.A., M.S., Ph.D. (Arizona State University)
- KUJAWA, FRANK B.**, *Associate Professor of Geology*  
(1969), B.A., Ph.D. (Johns Hopkins University)
- KUNNATH, SASHI K.**, *Assistant Professor of Engineering*  
(1991), B.E., M.E., Ph.D. (State University of New York at Buffalo)
- KUO, SHIOU-SAN**, *Associate Professor of Engineering*  
(1981), B.S., M.S., Ph.D. (Michigan State University), P.E. (Florida and Michigan)
- KURFIRST, ROBERT**, *Assistant Professor of Political Science*  
(1991), B.A., M.A., Ph.D. (University of Toronto)
- KYSILKA, MARCELLA L.**, *Professor of Education*  
(1969), B.S.Ed., M.Ed., Ph.D. (University of Texas)
- LAIRD, ROBERT J.**, *Associate Professor of Molecular Biology and Microbiology and Associate Professor of Physical Therapy*  
(1970), B.S., R.P.T., M.S., Ph.D. (University of Texas)
- LA BRAKE, ORLYN B.**, *Associate Director of Libraries*  
(1977), B.A., M.L.S. (State University of New York at Albany)
- LANDRY, JR., RAYMOND M.**, *Assistant Professor of Accounting*  
(1986), B.S., M.B.A. Ph.D. (University of Arkansas)
- LANG, SHEAU-DONG**, *Associate Professor of Computer Science*  
(1981), B.S., M.S., Ph.D. (Pennsylvania State University)



- LANGE, ROBERT R.**, *Professor of Education*  
(1980), B.S., M.Ed., Ph.D. (New Mexico State University)
- LASSEIGNE, THOMAS L.**, *Assistant Professor of Management*  
(1992), B.S., M.B.A. (Louisiana State University)
- LAWTHER, WENDELL C.**, *Associate Dean, College of Health and Public Affairs and Associate Professor of Public Administration*  
(1984), B.A., M.A., Ph.D. (Indiana University)
- LEBRUTO, STEPHEN J.**, *Assistant Professor in Hospitality Management*  
(1990), B.S., M.S. (Long Island University)
- LECKIE, SHIRLEY A.**, *Associate Professor of History*  
(1985), B.A., M.A., Ph.D. (University of Toledo)
- LEE, CHANG C.**, *University Librarian*  
(1983), L.L.B., M.S., Ph.D. (Florida State University)
- LEE, GENE C. H.**, *Associate Professor of Engineering*  
(1985), B.E., M.S., M.S.I.E., Ph.D. (Texas Tech University) P.E. (Texas)
- LEESON, JOHN J.**, *Associate Professor of Computer Science*  
(1982), B.A., M.S., Ph.D. (University of Miami)
- LEFTWICH, D. SCOTT**, *Acting Director of Transportation Systems Institute and Associate Professor of Engineering*  
(1982), B.S., M.C.E., Ph.D. (North Carolina State),  
P.E. (Florida and North Carolina)
- LEIGH, WILLIAM E., JR.**, *Associate Professor of Management*  
(1987), B.S., M.S., M.B.A., Ph.D., (University of Cincinnati)
- LESKO, ERIC S.**, *Instructor in Music*  
(1980), B.M. (Hartt College of Music)
- LEVENSOHN, STEPHEN B.**, *Professor of Philosophy*  
(1969), B.A., M.A., Ph.D. (Florida State University)
- LEWIS, PAMELA S.**, *Interim Chair and Associate Professor of Management*  
(1986), B.S.B.A., M.B.A., Ph.D. (University of Tennessee-Knoxville)
- LI, XIN**, *Assistant Professor of Mathematics*  
(1990), B.A., M.A., Ph.D. (University of South Florida)
- LILIE, JOYCE R.**, *Associate Professor of Political Science*  
(1985), B.A., M.A., Ph.D. (Johns Hopkins University)
- LILIE, STUART A.**, *Associate Vice President and Dean, Undergraduate Studies and Associate Professor of Political Science*  
(1972), B.A., Ph.D. (Johns Hopkins University)
- LILLIOS, ANNA**, *Assistant Professor of English*  
(1987), B.A., M.A.L.S., Ph.D. (University of Iowa)
- LIN, J.T.**, *Associate Professor of Physics*  
(1985), B.S., Ph.D. (University of Rochester)
- LIN, KUO-CHI**, *Assistant Professor of Engineering*  
(1990), B.S., M.S., Ph.D. (University of Michigan)
- LINDHOLM, JAN**, *Instructor of Computer Science*  
(1980), B.S., M.B.A. (Western Colorado University)
- LINN, JOHN C.**, *Chair, Department of Aerospace Studies and Professor of Aerospace Studies*  
(1990), B.A., M.S. (University of Southern California-Los Angeles)
- LINTON, DARRELL G.**, *Associate Professor of Engineering*  
(1977), B.A., M.E., Ph.D. (University of Florida), P.E. (Florida)
- LIU, JUIN J.**, *Associate Professor of Engineering Science*  
(1986), B.S.E.E., M.S.E.E. (University of Florida)
- LITTLEWOOD, IAN**, *Assistant Professor of Physics*  
(1986), B.A., D.Phil. (Oxford University)
- LIU, Y. ANGELA**, *Assistant Professor of Finance*  
(1989), B.A., M.A., Ph.D. (University of Tennessee)
- LLEWELLYN, RALPH A.**, *Professor of Physics*  
(1980), B.S., Ph.D. (Purdue University)

- LONGLEY, ROSS E.**, *Assistant Professor of Biological Sciences*  
(1984), B.S., M.S., Ph.D. (University of Oklahoma)
- LOTZ, STEVEN D.**, *Professor of Art*  
(1968), B.A., M.F.A. (University of Florida)
- LOUDERMILK, JENNIE L.**, *Director of Development, College of Education*  
(1977) B.A., M.A., Ed.D. (University of Georgia)
- LYNN, MARY ANN**, *Associate Dean, College of Education and Professor of Education*  
(1989) B.S., M.S., Ed.D. (Illinois State University)
- LYNXWILER, JOHN P.**, *Assistant Professor of Sociology*  
(1989), B.A., M.A., Ph.D. (University of Tennessee)
- LYTLE, J. STEPHEN**, *Associate Professor of Health Sciences*  
(1975), RRT, B.S., M.S., M.P.H. (University of Central Florida)
- MADSEN, BROOKS C.**, *Professor of Chemistry*  
(1970), B.S., M.S., Ph.D. (Ohio University)
- MAHAN, CHERYL A.**, *Associate University Librarian*  
(1977), B.A., M.L.S. (Florida State University)
- MAHAN, SUSAN G.**, *Associate Professor of Criminal Justice*  
(1987) Ph.D. (University of Missouri)
- MAHONEY, LOIS S.**, *Assistant to the Director and Instructor of Accounting*  
(1989), B.A., M.B.A. (University of Central Florida)
- MALOCHA, DONALD C.**, *Professor of Engineering*  
(1981), B.S., M.S., Ph.D. (University of Illinois), P.E. (Florida)
- MALONE, LINDA C.**, *Associate Professor of Statistics*  
(1979), B.S., M.S., Ph.D. (Virginia Polytechnic Institute)
- MANNING, PATRICIA C.**, *Professor of Education*  
(1970), B.S., M.Ed., Ed.D. (Nova University)
- MARTIN, HUGH P.**, *Assistant Professor of Education*  
(1972), B.S., M.A., Ed.D. (University of Alabama)
- MARTIN, FRANCES**, *Visiting Instructor of Art*  
(1992), B.A., M.S., Ph.D. (University of California)
- MARTIN, RAYMOND L.**, *Associate Professor of Management*  
(1971), B.S.E.E., M.E.A., Ph.D. (American University)
- MARTIN, ROBERT D.**, *Professor of Education*  
(1967), B.S., A.M., M.A., Ed.D. (Duke University)
- MARTIN, THOMAS L.**, *Associate Professor of Economics*  
(1983), B.A., B.S., Ph.D. (Rice University)
- MATHEWS, BRUCE E.**, *Assistant Dean, College of Engineering and Professor of Engineering*  
(1969), B.E.E., M.S.E., Ph.D. (University of Florida), P.E. (Florida)
- MATTSON, GUY C.**, *Professor of Chemistry*  
(1969), B.S., Ph.D. (University of Florida)
- MAUNEZ-CUADRA, JOSE**, *Associate Professor of Communication*  
(1989), B.A., M.S., Ph.D. (Bowling Green State University)
- McBRAYER, JAMES D.**, *Chair, Department of Engineering Technology and Professor of Engineering Technology*  
(1990), B.S.A.E., M.S., Dipl., D.Sc. (Washington University), P.E. (Florida, Missouri, and Ohio)
- McCANN, GUY K.**, *Associate Professor of Communication*  
(1985), B.A., M.A. (Fairfield University)
- McCANN, MICHAEL P.**, *Assistant Professor of Chemistry*  
(1990), B.S., M.S., Ph.D. (University of Tennessee)
- McCARTHY, BELINDA R.**, *Dean, College of Health and Public Affairs and Professor of Criminal Justice*  
(1990), B.A., M.A., Ph.D. (SUNY at Albany)
- McCARTHY, BERNARD J.**, *Professor of Criminal Justice*  
(1990), B.A., M.Ed., M.A., Ph.D. (The Florida State University)
- McGEE, WILLIAM W.**, *Professor of Forensic Science*  
(1968), B.S., M.S., Ph.D. (University of Florida)
- McGHEE, KATHERINE**, *Assistant Professor of Art Education*  
(1989), B.S., M.A., Ph.D. (Ohio State University)



- McGINNIS, DENNIS R.**, *Vice President for University Relations and Professor of Education*  
(1985), A.B., M.A., Ed.D. (University of Georgia)
- McGUFFEE, MICHAEL E.**, *Visiting Instructor*  
(1991), B.S., M.S., (Oklahoma State University)
- McGUIRE, JOHN M.**, *Professor of Psychology*  
(1972), B.A., M.A., Ph.D. (George Peabody College)
- McHONE, W. WARREN**, *Chair, Department of Economics and Associate Professor of Economics*  
(1982), B.S., M.A., Ph.D. (University of Pennsylvania)
- McINTOSH, JOHN**, *Instructor of Industrial Engineering*  
(1990), B.S.E.E., M.S.E.E., M.B.A. (University of Central Florida)
- McLAIN, J. NANNETTE**, *Chair, Educational Foundations and College of Education Associate Professor of Education*  
(1968), B.S., M.Ed., Ph.D. (University of Chicago)
- McQUILKIN, PAUL R.**, *Associate Dean of Undergraduate Studies*  
(1971), B.S., M.B.A., Ph.D. (Iowa State University)
- McQUILLEN, CHARLES D.**, *Visiting Professor of Finance*  
(1987), B.S., M.B.A., Ph.D. (University of Florida)
- MEALOR, DAVID J.**, *Professor of Education*  
(1980), B.S., M.Ed., Ph.D. (University of Georgia)
- MEESKE, MILAN D.**, *Professor of Communication*  
(1970), B.S., M.A., Ph.D. (University of Denver)
- MELTON, HENRY J.**, *Associate Professor in Hospitality Management*  
(1990), B.S., M.B.A., Ph.D. (United States International University)
- MENDENHALL, THOMAS S.**, *Associate Professor of Health Sciences*  
(1976), B.A., MT(ASCP), M.S., Ph.D. (University of Missouri)
- MICARELLI, CHARLES N.**, *Professor of Foreign Languages and Literatures*  
(1967), B.A., M.A., Ph.D. (Boston University)
- MICHEL, ELIZABETH**, *Visiting Instructor of Communication*  
(1989), B.A., M.A. (University of Central Florida)
- MIDGETT, JEANICE**, *Professor of Education*  
(1972), B.S., M.A., Ed.S., Ed.D. (University of Georgia)
- MIKHAEL, WASFY B.**, *Professor of Engineering*  
(1988), B.S.E.E., M.S.E.E., Ph.D. (Concordia University)
- MIKUSINSKI, PIOTR**, *Associate Professor of Mathematics*  
(1985), M.S., Ph.D. (Polish Academy of Sciences, Institute of Mathematics)
- MILES, D. HOWARD**, *Chair, Department of Chemistry and Professor of Chemistry*  
(1988) B.S., Ph.D. (Georgia Institute of Technology)
- MILLER, ALAN**, *Professor of Physics*  
(1988) B.Sc., Ph.D. (University of Bath-United Kingdom)
- MILLER, A. JEANNE**, *Associate Professor of Education*  
(1974), B.A., M.A., Ed.D. (Nova University)
- MILLER, HARVEY A.**, *Professor of Biology*  
(1970), B.S., M.S., Ph.D. (Stanford University)
- MILLER, MARGARET**, *Associate Professor of Education*  
(1971), B.S., M.S., Ed.D. (University of Florida)
- MILLER, RICHARD N.**, *Associate Dean and Associate Professor of Engineering*  
(1979), B.S., M.S.E.E., Ph.D. (SUNY Buffalo), P.E. (Colorado)
- MILMAN, ADY**, *Interim Chair, Department of Hospitality Management and Associate Professor of Hospitality Management*  
(1986), B.A., M.Sc., Ph.D. (University of Massachusetts)
- MINARDI, ANTONIO**, *Assistant Professor of Engineering*  
(1977), B.A.Sc., S.M., Ph.D. (University of Central Florida), E.I. (Florida)
- MITCHELL, DEBBY L.**, *Instructor of Education*  
(1989) B.A., M.A. (University of Central Florida)
- MODANI, NAVAL K.**, *Associate Professor of Finance*  
(1983), B.S., M.B.A., Ph.D. (University of South Carolina)
- MOHAPATRA, RAM N.**, *Professor of Mathematics*  
(1984), B.S., M.S., Ph.D. (University of Jabalpur)
- MOHARAM, GAMAL**, *Professor of Electrical Engineering Science*  
(1987) B.S., Ph.D. (University of British Columbia)

- MOLLAGHASEMI, MANSOOREH**, *Assistant Professor of Engineering*  
(1991), B.S., M.E., Ph.D. (University of Louisville)
- MONROE, JUDITH E.**, *Assistant Director, Administration and Finance*  
(1978) B.S., M.A. (University of Central Florida)
- MOORE, BARBARA A.**, *Coordinator, Center for Economic Education and  
Instructor of Economics*  
(1986), B.S., M.Ed. (University of Central Florida)
- MORALES, ANGEL A.**, *Assistant Professor of Military Science*  
(1990), B.A. (International American University)
- MORALES, WALTRAUD Q.**, *Associate Professor of Political Science*  
(1980), B.A., M.A., Ph.D. (University of Denver)
- MORGAN, BEN B., JR.**, *Interim Associate Dean, College of Arts and  
Sciences, and Professor of Psychology*  
(1968), B.A., M.A., Ph.D. (University of Louisville)
- MORIE, JACQUELYN F.**, *Visiting Assistant Professor of Communication (Film)*  
(1991), B.F.A., M.F.A., M.S. (University of Florida)
- MORRIS, MICHAEL H.**, *Associate Professor of Marketing*  
(1984), B.A., M.S., M.B.A., Ph.D. (Virginia Polytechnic Institute and  
State University)
- MORSE, LUCY C.**, *Assistant Professor of Engineering*  
(1983), A.B., M.S., Ph.D. (University of Central Florida)
- MORTAZAWI, AMIR**, *Assistant Professor of Engineering*  
(1990), B.S.E., M.S.E., Ph.D. (Texas at Austin)
- MOSHELL, J. MICHAEL**, *Associate Professor of Computer Science*  
(1984), B.S., Ph.D. (Ohio State University)
- MOSLEHY, FAISSAL A.**, *Professor of Engineering*  
(1980), B.S., M.S., Ph.D. (University of South Carolina), P.E. (Florida)
- MOZEE, DAVID M.**, *Assistant Professor of Criminal Justice*  
(1990), B.G.S., M.P.A. (Roosevelt University)
- MUILENBURG, LAWRENCE P.**, *Instructor of Mathematics*  
(1990), B.A., M.S. (University of Central Florida)
- MUKHERJEE, AMAR**, *Professor of Computer Science*  
(1979), B.S., M.S., Ph.D. (University of Calcutta)
- MULLIN, THOMAS A.**, *Associate Professor of Communicative Disorders*  
(1972), B.A., M.S., Ph.D. (Syracuse University)
- MULLENS, MICHAEL A.**, *Assistant Professor of Industrial Engineering*  
(1989), B.S., M.S., Ph.D. (Georgia Tech)
- MURRAY, BARBARA**, *Assistant Professor of English*  
(1989), B.A., M.A., Ph.D. (University of Tennessee)
- MURRAY, KENNETH T.**, *Assistant Professor of Education*  
(1991), B.S., M.S., J.D., Ph.D. (Indiana State University)
- MYLER, HARLEY R.**, *Associate Professor of Engineering*  
(1986), B.S.E.E., M.S.E.E., Ph.D. (New Mexico State University), P.E. (Florida)
- NAYFEH, JAMAL**, *Assistant Professor of Mechanical Engineering*  
(1990), B.S., M.S., Ph.D. (Virginia Polytech Institute and St University)
- NEIGHBOR, J. EDWARD**, *Associate Vice President for Academic Affairs and  
Professor of Physics*  
(1987), B.S., M.S., Ph. D. (Massachusetts Institute of Technology)
- NEUSTEL, ARTHUR D.**, *Assistant Professor of Finance*  
(1984), B.S., M.S., M.B.A., Ph.D. (Virginia Polytechnic Institute and State University)
- NICHOLSON, DAVID W.**, *Chair, Department of Mechanical and Aerospace Engineering and  
Professor of Engineering*  
(1990), B.S., M.S., M.Phil., Ph.D. (Yale University)
- NICKERSON, DAVID**, *Assistant Professor of Statistics*  
(1990), B.S., M.S., Ph.D. (University of Georgia)
- NOLL, MARY LOU**, *Visiting Associate Professor*  
(1991), B.S.N., M.S., Ph.D. (University of Texas at Austin)
- NORMAN, EDWARD**, *Associate Professor of Mathematics*  
(1969), B.S., Ph.D. (Cornell University)
- NUCKOLLS, CHARLES E.**, *Associate Professor of Engineering*  
(1973), B.S., M.S., Ph.D. (University of Oklahoma), P.E. (Florida, Texas)



- O'HARA, JOHN B.**, *School of Communication*  
(1979) B.A., M.A., Ph.D. (University of Oklahoma)
- O'KEEFE, M. TIMOTHY**, *Professor of Communication*  
(1968), B.A., M.A., Ph.D. (University of North Carolina)
- OLSON, JUDITH L.**, *Professor of Education*  
(1974), B.S., M.A., Ph.D. (University of Florida)
- OMANS, STUART E.**, *Professor of English*  
(1968), B.A., M.A., Ph.D. (Northwestern University)
- OROOJI, ALI**, *Associate Professor of Computer Science*  
(1985), B.S., M.S., Ph.D. (Ohio State University)
- ORTIZ, S. ENRIQUE**, *Assistant Professor of Education*  
(1989) B.A., M.A., Ed.D. (Louisiana State University)
- ORWIG, GARY W.**, *Associate Professor of Education*  
(1977), B.S., M.S., Ed.D. (Indiana University)
- OSBORNE, JOHN A.**, *Professor of Biology*  
(1972), B.S., M.S., Ph.D. (Kansas State University)
- OSBORNE, KING W.**, *Professor of Engineering Technology*  
(1983), B.S.E., M.E.E.E., Ed.D. (Florida Atlantic University), P.E. (Florida)
- O'SULLIVAN, RICHARD J.**, *Visiting Assistant Professor of Education*  
(1990), B.S., M.A., Ed.D (State University of New York at Albany)
- OTSUKA, YASUJI**, *Assistant Professor of Economics*  
(1990), B.S., M.S., Ph.D. (University of Tennessee)
- OWENS, KAREN R.**, *Assistant in Center for Economic Education*  
(1987), B.A. (University of Florida)
- OWENS, KELLY J.**, *Assistant Professor of Aerospace Studies*  
(1991), B.S., M.S. (Troy State University-Montgomery)
- PALMER, MARY J.**, *Professor of Education*  
(1970), B.S., M.S., Ed.D. (University of Illinois)
- PAPPAS, SARAH H.**, *Associate Vice President for Academic Affairs and  
Director, Daytona Beach Campus*  
(1986), B.A., M.A., Ed.D. (Nova University)
- PARK, HOON**, *Assistant Professor of Finance*  
(1988), B.A., M.B.A., Ph.D. (Georgia State University)
- PARK, SHELLEY M.**, *Assistant Professor of Philosophy*  
(1990), B.A., M.A., Ph.D. (Duke University)
- PARKER, HAZEL**, *Assistant Professor of Communicative Disorders*  
(1990), B.A., M.A. (University of Central Florida)
- PARKINSON, EDWARD**, *Assistant Professor of Engineering*  
(1989) B.S., M.S., Ph.D. (University of South Florida)
- PATRONE, NADIA**, *Assistant Professor of Foreign Languages and Literatures*  
(1989), B.A., M.A., Ph.D. (Florida State University)
- PATTON, CHARLES**, *Assistant Professor of Marketing*  
(1987), B.S., M.E., M.B.A., Ph.D. (University of Pennsylvania)
- PAUGH, ROBERT F.**, *Associate Professor of Education*  
(1973), B.S., M.A., Ed.D. (North Carolina State University)
- PAUL, GORDON W.**, *Professor of Marketing*  
(1977), B.S., M.B.A., Ph.D. (Michigan State University)
- PAULEY, BRUCE F.**, *Professor of History*  
(1971), B.A., M.A., Ph.D. (University of Rochester)
- PAWLAS, GEORGE E.**, *Assistant Professor of Education*  
(1991), B.S., M.Ed., Ph.D. (University of South Carolina)
- PAYAS, ARMANDO**, *Associate Professor of Foreign Languages and Literatures*  
(1969), B.A., M.A., J.D., Ph.D. (Florida State University)
- PEALE, ROBERT E.**, *Assistant Professor of Physics*  
(1991), B.A., M.S., Ph.D. (Cornell University)
- PELLI, MOSHE**, *Director, Judaic Studies Program and  
Professor of Judaic Studies*  
(1985), B.S., Ph.D. (The Dropsie College)
- PENNINGTON, ROBERT L.**, *Director, Center for Economic Education and  
Associate Professor of Economics*  
(1983), B.A., Ph.D. (Texas A&M University)

- PERAGALLO, NILDA P.**, *Associate Professor of Nursing*  
(1983), B.S.N., Dr. P.H. (University of Texas)
- PERRY, MICHAEL K.**, *Assistant Professor of Military Science*  
(1990), B.S. (Florida Institute of Technology)
- PETERSON, JANICE Z.**, *Assistant Professor of Nursing*  
(1982), R.N., M.S. (University of Rochester)
- PETRASKO, BRIAN E.**, *Associate Professor of Engineering Science*  
(1972), B.E.E., M.E., D.Eng. (University of Detroit)
- PETTOFREZZO, ANTHONY J.**, *Professor of Mathematics*  
(1969), B.A., M.A., Ph.D. (New York University)
- PFARRER, THEODORE R.**, *Associate University Librarian*  
(1976), B.S., M.L.S., Ad.M.L.S., Ph.D. (Florida State University)
- PHILLIPS, RONALD L.**, *Professor of Engineering Science and Mathematics*  
(1970), B.S.E., M.S.E., M.A., Ph.D. (Arizona State University)
- PHILLIPS, THOMAS E.**, *Associate Professor of Accounting*  
(1977), A.B., M.B.A., Ph.D. (University of Nebraska), C.P.A.
- PICKERING, ROY**, *Associate Professor of Music*  
(1979), B.M.E., M.M. (Indiana University)
- PIZAM, ABRAHAM**, *Professor of Hospitality Management*  
(1983), B.A., M.P.A., Ph.D. (Cornell University)
- PLATT, JENNIFER M.**, *Associate Professor of Education*  
(1985), B.S., M.S., Ed.D. (West Virginia University)
- POLFER, ALOYSE T.**, *Director, Small Business Development Center and Instructor*  
(1981), B.A., M.A., M.B.A. (Loyola University-Chicago)
- POLLOCK, PHILIP H.**, *Associate Professor of Political Science*  
(1982), B.A., Ph.D. (University of Minnesota)
- POTTS, JAMES H.**, *Professor of Accounting*  
(1990), B.S., M.B.A., Ph.D. (University of Alabama)
- POWELL, JOHN W.**, *Associate Professor of Education*  
(1970), B.S., M.Ed., Ed.D. (University of Alabama)
- POWELL, STERLING A.**, *Assistant Professor of Military Science*  
(1990), B.S. (Florida A & M University)
- PRICE, MARIAN W.**, *Assistant Professor of English*  
(1974), B.A., M.A., Ph.D. (Florida State University)
- PRIEST, RONNIE**, *Assistant Professor of Counselor Education*  
(1990), B.B.A., M.A., Ph.D. (The University of Alabama)
- PRIMUS, BOBBIE J.**, *Associate Professor of Nursing-Daytona Campus*  
(1988), B.S., M.P.H., Ed.D. (Virginia Polytechnic Institute and State University)
- PRYOR, ALBERT V.**, *Professor of Communication*  
(1972), B.S., M.A., Ph.D. (University of Michigan)
- PULLIN, JAMES R.**, *Instructor of Management*  
(1987), B.S., M.B.A., M.S. (Georgia State University)
- PUTCHINSKI, LINDA B.**, *Coordinator of Graduate Programs and Instructor,  
College of Business Administration*  
(1989), B.A., M.B.A. (University of Central Florida)
- PYLE, RANSFORD C.**, *Associate Professor of Legal Studies*  
(1976), A.B., J.D., M.A., Ph.D. (University of Florida)
- QU, ZHIHUA**, *Assistant Professor of Engineering*  
(1990), B.S.E., M.S.E., Ph.D. (Georgia Tech)
- QUAIN, WILLIAM J.**, *Associate Professor in Hospitality Management*  
(1988), B.S., M.S., Ph.D. (University of New Orleans)
- QUEEN, WILLIAM E.**, *Visiting Assistant Professor of Engineering Technology*  
(1991), B.S.E.E., M.S.E.E., M.S.A. (George Washington University), P.E. (D.C.)
- RADWAN, A. ESSAM**, *Chair, Department of Civil and Environmental Engineering and  
Professor of Engineering*  
(1990), B.S., M.S., Ph.D. (Purdue University), P.E. (Arizona, Florida, Virginia, and  
Egypt)
- RAFFA, FREDERICK A.**, *Professor of Economics*  
(1969), B.S., M.B.A., Ph.D. (Florida State University)
- RAGUSA, JAMES M.**, *Associate Professor of Management*  
(1987), B.S.M.E., M.S.M., D.B.A. (Florida State University)



- RAMEY, MARY E.**, *Instructor of Nursing*  
(1988), B.S.N., M.N.Ed. (University of Pittsburgh)
- RATLIFF, JOANNE**, *Assistant Professor of Education*  
(1987), B.S., M.Ed., Ph.D., (Louisiana State University)
- RATUSNIK, DAVID L.**, *Professor of Communicative Disorders*  
(1985), B.S., M.A., Ph.D. (Northwestern University)
- RAUTENSTRAUCH, C. PETER**, *Associate Professor of Mathematics*  
(1968), B.A., M.A., Ph.D. (Auburn University)
- REDMON, MARIA**, *Instructor of Foreign Languages and Literatures*  
(1989), B.A., M.A. (University of Madrid)
- REGIER, GAIL**, *Assistant Professor of English*  
(1990), B.S., M.F.A. (University of Arkansas)
- REIFF, WALLACE W.**, *Professor of Finance*  
(1970), B.A., M.A., M.B.A., D.B.A (Indiana University)
- REINHART, DEBRA R.**, *Assistant Professor of Engineering*  
(1989) B.S.E., M.S., Ph.D. (Georgia Tech)
- RENKEN, RAY L.**, *Assistant Professor of Physics*  
(1991), B.S., Ph.D. (Cornell University)
- RENNER, KENNETH H.**, *Assistant Professor of Education*  
(1969), B.S.P.E., M.P.H. (University of Florida)
- RICE, STEPHEN L.**, *Associate Dean and Professor of Engineering*  
(1983), B.S., M.E., Ph.D. (University of California, Berkeley), P.E. (Florida)
- RICHARDSON, GARY D.**, *Professor of Mathematics and Statistics*  
(1984), B.S., M.S., Ph.D. (North Carolina State University)
- RICHARDSON, MARTIN**, *Professor of Physics*  
(1990), B.S.C., A.R.C.S., Ph.D. (University of London)
- RICHIE, SAMUEL M.**, *Assistant Professor of Engineering*  
(1984), B.S.E., M.S.E. (University of Central Florida), E.I. (Florida)
- RIGGS, K. ROGER**, *Instructor in Computer Science*  
(1988), B.A., M.S. (University of Central Florida)
- RILEY, PAUL E.**, *Associate Professor of Humanities*  
(1969), B.A., M.Ed., Ph.D. (University of Florida)
- RINALDUCCI, EDWARD J.**, *Professor of Psychology*  
(1986), B.A., M.A., Ph.D. (University of Rochester)
- RISER, JOHN S.**, *Acting Chair, Department of Philosophy and Humanities and Associate Professor of Philosophy*  
(1969), B.A., Ph.D. (University of North Carolina)
- RIVERS, ROBERT H., JR.**, *Associate Professor of Art*  
(1981), B.F.A., M.F.A. (University of Georgia)
- ROBERTS, DAVID J.**, *Director, Center for Executive Development and Instructor*  
(1987), B.S., M.B.A., (Indiana University)
- ROBERTSON, EDWARD H.**, *Instructor in Accounting*  
(1981), M.B.A. (Columbia University), C.P.A.
- ROBINSON, MAUREN H.**, *Instructor of Education*  
(1989) A.A., B.A., M.A.T. (Rollins College)
- ROGERS, RALPH V.**, *Assistant Professor of Engineering*  
(1989) B.S., M.S., Ph.D. (University of Virginia)
- RODRIGUEZ, RENE S.**, *Associate Professor of Mathematics*  
(1971), B.Ch.E., Ph.D. (University of Tennessee)
- ROHTER, FRANK D.**, *Professor of Education*  
(1968), B.S., M.Ed., Ph.D. (University of Southern California)
- ROLLINS, DAVID K.**, *Assistant Professor of Mathematics*  
(1988) B.Sc., Ph.D., (California Institute of Technology)
- ROLLINS, JACK B.**, *Professor of Psychology*  
(1969), B.S., M.S., Ph.D. (University of Georgia)
- RONEY, WILLIAM L.**, *Associate Professor of Music and Artist in Residence*  
(1982), B.S. (Harvard College)
- ROSELL, ELLEN**, *Assistant Professor of Public Administration*  
(1989) B.A., M.S.W., D.P.A. (University of Georgia)
- ROSENKRANTZ, STUART A.**, *Associate Professor of Management*  
(1989), B.G.S., M.A., Ph.D. (University of Nebraska)

- ROSSI, PETER C.**, *Head, Cataloging Department and Associate University Librarian*  
(1973), A.B., M.L.S. (University of New York at Geneseo)
- ROTHBERG, ROBERT A.**, *Professor of Education*  
(1968), B.S.B.A., B.Ed., M.Ed., Ed.D. (Florida State University)
- ROUSH, PAMELA Y.**, *Assistant Professor of Accounting*  
(1989), B.A., M.B.A., Ph.D. (Georgia State University)
- RUBIN, RONALD S.**, *Professor of Marketing*  
(1972), B.A., M.A., Ph.D. (University of Massachusetts)
- RUNGELING, BRIAN S.**, *Professor of Economics*  
(1981), M.A., Ph.D. (University of Kentucky)
- RUSCELLA, PHYLLIS L.**, *University Librarian*  
(1987), B.A., M.A., M.L.S. (Pennsylvania State University)
- RUSHIN, PATRICK J.**, *Associate Professor of English*  
(1983), B.A., M.A., M.A. (Johns Hopkins University)
- RUSNOCK, JOSEPH S.**, *Associate Professor of Theatre*  
(1985), B.A., M.F.A. (University of Minnesota)
- SAHA, HARI**, *Associate Professor of Physics*  
(1987) B.S., Ph.D. (University of Calcutta)
- SALTER, JOHN H. III**, *Associate Professor of Accounting*  
(1975), B.S., M.S., Ph.D. (Louisiana State University), C.P.A.
- SALTER, MARILYN P.**, *Visiting Instructor of Accounting*  
(1981), B.S., M.S.A. (University of Central Florida), C.P.A.
- SALZMANN, FRANK L.**, *Assistant Professor of Mathematics*  
(1970), B.S., M.S., Ph.D. (Auburn University)
- SANDERS, JOHN T.**, *Chair, Department of Military Science and Professor of Military Science*  
(1991), B.S., M.A. (Webster University)
- SANFORD, DANIEL W.**, *Assistant Professor of Education*  
(1985), B.S., M.Ed., Ed.D. (University of Southern Mississippi)
- SAVAGE, LINDA J.**, *Associate Professor of Accounting*  
(1980), B.S., M.S., Ph.D. (University of Florida), C.P.A.
- SCHARF, MARGARET K.**, *Assistant University Librarian*  
(1984), B.A., M.L.S., M.B.A. (University of Central Florida)
- SCHELL, JOHN F.**, *Chair, Department of English and Professor of English*  
(1987), B.A., M.A., Ph.D. (Vanderbilt University)
- SCHIFFHORST, GERALD J.**, *Professor of English*  
(1970), B.S., M.A., Ph.D. (Washington University)
- SCHONBORN, ANNETTE T.**, *Instructor of Technology*  
(1990), B.A., M.S. (St. John's University) and M.S. (Iona College)
- SCHOTT, JAMES R.**, *Associate Professor of Statistics*  
(1982), B.S., M.S., Ph.D. (University of Florida)
- SCHOTT, SUSAN C.**, *Instructor in Mathematics*  
(1982), B.S., M.S. (University of Florida)
- SCHRADER, GEORGE F.**, *Professor of Engineering*  
(1969), B.S., M.S., Ph.D. (University of Illinois), P.E. (Florida, Illinois)
- SCHULTE, ALFONS**, *Assistant Professor of Physics*  
(1990), Diploma in Physics, Dr. rer. nat. (Technische Universitaet)
- SCIORTINO, PHILIP T.**, *Associate Professor of Education*  
(1977), B.S., M.B.A., M.Ed., Ph.D. (University of Notre Dame)
- SCOTT, DAVID F. JR.**, *Chairholder, Della Phillips-Martha D. Schenck  
Chair in American Private Enterprise and Professor of Finance*  
(1982), B.S.B.A., M.B.A., Ph.D. (University of Florida)
- SEIDEL, KATHRYN L.**, *Associate Dean College of Arts and Sciences and  
Associate Professor of English*  
(1986), B.A., M.A., Ph.D. (University of Maryland)
- SEPULVEDA, JOSE A.**, *Associate Professor of Engineering*  
(1981), B.S.Ch.E., M.S.I.E., M.P.H., Ph.D. (University of Pittsburgh),  
P.E. (Florida)
- SHAH, MUBARAK A.**, *Associate Professor of Computer Science*  
(1986), B.E., M.S., Ph.D. (Wayne State University)
- SHAPEK, RAYMOND A.**, *Professor of Public Administration*  
(1985), B.A., M.P.A., Ph.D. (University of Colorado)



- SHAYKHIAN, GHOLAM ALI**, *Program Coordinator-Information Systems Engineering Technology, Assistant Professor of Engineering Technology*  
(1986), B.S.E.T., M.S. (University of Central Florida)
- SHEARER, RON S.**, *Assistant Professor of Communication*  
(1990), M.A. (University of Wisconsin-Madison)
- SHERIDAN, EDWARD P.**, *Dean, College of Arts and Sciences and Professor of Psychology*  
(1990), B.A., M.A., Ph.D. (Loyola University-Chicago)
- SHERIDAN, KATHLEEN**, *Professor of Psychology*  
(1990) A.B., M.A., J.D., Ph.D. (Fordham University)
- SHERWOOD, HOWARD**, *Professor of Mathematics*  
(1969), B.S., M.S., Ph.D. (University of Arizona)
- SHIRKEY, EDWIN C.**, *Associate Professor of Psychology*  
(1971), B.A., M.A., Ph.D. (University of Wisconsin)
- SHIVAMOGGI, BHIMSEN**, *Professor of Mathematics*  
(1985), B.S., M.S., Ph.D. (University of Colorado)
- SHOFNER, JERRELL H.**, *Professor of History*  
(1972), B.S., M.S., Ph.D. (Florida State University)
- SHOSTAK, THOMAS A.**, *Director of Orlando Area Programs*  
(1987), B.A., M.A., Ed.D. (Fairleigh Dickinson University)
- SICILIANO, DARLENE M.**, *Instructor of Education*  
(1989) B.A., M.S. (Oklahoma State University)
- SIEBERT, BARRY W.**, *Associate Professor of Education*  
(1972), B.S., M.A., Ph.D. (University of North Dakota)
- SILFVAST, WILLIAM**, *Professor of Physics*  
(1990), B.S., Ph.D. (University of Utah)
- SILVER, NED C.**, *Assistant Professor of Psychology*  
(1990), B.A., M.S., Ph.D. (Tulane University)
- SIMMONS, ROGER D.**, *University Librarian*  
(1990), B.A., M.L.S. (University of Chicago)
- SINDLINGER, JUDITH A.**, *Interim Director, College of Education Records and Advisement Center*  
(1991) B.A., M.Ed., Ed.D. (Indiana University)
- SKOGLUND, MARGARET A.**, *Assistant Professor of Art*  
(1977), B.S., M.A., Ph.D. (University of Missouri)
- SLAUGHTER, DAVID B.**, *Assistant Professor, Department of Public Service Administration*  
(1978), B.A., J.D. (Florida State University)
- SMITH, DOUGLAS R.**, *Assistant Professor of Aerospace Studies*  
(1991), B.S., M.S. (University of Texas-Austin)
- SMITH, ERNEST**, *Assistant Professor of English*  
(1990), B.A., M.A., Ph.D. (New York University)
- SMITH, FRANCES B.**, *Associate Professor of Nursing*  
(1979), R.N., M.S.N., Ed.D. (Florida State University)
- SMITH, HARRY W., JR.**, *Director, Department of Theatre and Professor of Theatre*  
(1969), B.A., M.A., Ph.D. (Tulane University)
- SMITH, RONALD F.**, *Associate Professor of Communication*  
(1980), A.B., M.A., M.A. (Ball State University)
- SMITH, WILLIAM F.**, *Professor of Engineering*  
(1968), B.A., M.S., Sc.D. (Massachusetts Institute of Technology), P.E. (Florida, California)
- SMITHER, JANAN A.**, *Assistant Professor of Psychology*  
(1990), B.S., M.A., Ph.D. (Johns Hopkins University)
- SNELSON, FRANKLIN F., JR.**, *Professor of Biology*  
(1970), B.S., Ph.D. (Cornell University)
- SNOW, MARILYN R.**, *Head, Reference Department and Associate University Librarian*  
(1984), B.A., M.L.S. (George Peabody College)
- SOILEAU, MARION J.**, *Director of CREOL and Professor of Engineering Science*  
(1986) B.S., M.S., Ph.D. (University of Southern California)
- SOMERVILLE, PAUL N.**, *Professor of Statistics*  
(1972), B.Sc., Ph.D. (University of North Carolina)
- SOMMER, MARGARET E.**, *Associate Professor of English*  
(1972), B.A., M.Ed., Ed.D. (University of Georgia)

- SORG, STEVEN E.**, *Associate Professor of Education*  
(1978), B.S., M.S., Ph.D. (Florida State University)
- SOSKIN, MARK D.**, *Visiting Associate Professor of Economics*  
(1988), B.A., M.A., Ph.D. (Pennsylvania State University)
- SOWDER, JEFFREY D.**, *Associate University Librarian*  
(1987), B.A., M.A.L.S. (University of South Florida)
- SPUDECK, RAYMOND E.**, *Assistant Professor of Finance*  
(1987), B.B.A., D.B.A. (Texas Tech. University)
- STAP, DONALD L.**, *Associate Professor of English*  
(1985), B.A., Ph.D. (University of Utah)
- STEARMAN, ALLYN M.**, *Professor of Sociology*  
(1976), B.A., M.A., Ph.D. (University of Florida)
- STEGEMAN, GEORGE I.A.**, *Chairholder, Cobb-L.J. Hooker Chair in Optical Sciences and Professor of Physics Engineering*  
(1990), B.S., M.S., Ph.D. (University of Toronto)
- STERN, MARK**, *Professor of Political Science*  
(1972), B.S., Ph.D. (University of Rochester)
- STEWART, HELEN L.**, *Counselor/Instructor/Advisor, College of Education Records and Advisement Center*  
(1990), B.A., M.A. (University of Central Florida)
- STICKLEY, C. MARTIN**, *Professor of Engineering*  
(1990), B.S.E.E., M.S.E.E., Ph.D. (Northeastern University)
- STILLMAN, JUNE S.**, *University Librarian*  
(1968), B.A.L.S., M.A. (Florida State University)
- STINARD, CHARLENE**, *Visiting Instructor of Political Science*  
(1990), B.S., M.A. (Columbia University)
- STOUT, I. JACK**, *Professor of Biology*  
(1972), B.S., M.S., Ph.D. (Washington State University)
- STRANGE, C. CLINTON JR.**, *Lecturer in Engineering Technology*  
(1986), B.I.E., M.S.E. (University of Central Florida), E.I. (Georgia)
- STRASSHOFER, SUSAN**, *Instructor of English*  
(1985), B.A., M.A. (University of Central Florida)
- SUH, EDWARD K.**, *Associate Professor of Social Work*  
(1985), B.A., M.A., M.S.W., Ph.D. (Brandeis University)
- SULLIVAN, TIMOTHY J.**, *Associate Professor of Education*  
(1971), B.A., M.A., Ed.D. (Northern Illinois University)
- SUNDARAM, KALPATHY B.**, *Assistant Professor of Engineering Science*  
(1987) B.S., B.E., M.T., Ph.D. (Indian Institute of Technology, Bombay)
- SUNG, STELLA**, *Assistant Professor of Music*  
(1991) B.A., M.F.A., D.M.A. (University of Texas at Austin)
- SUTTON, LINDA J.**, *Associate University Librarian*  
(1988), B.A., M.L.S. (Florida State University)
- SWART, WILLIAM W.**, *Chair, Department of Industrial Engineering and Management Systems and Professor of Engineering*  
(1985), B.S., M.S., Ph.D. (Georgia Institute of Technology), P.E. (Florida)
- SWEENEY, MICHAEL J.**, *Professor of Molecular Biology and Microbiology*  
(1972), B.S., Ph.D. (Temple University School of Medicine)
- SWEET, HAVEN C.**, *Professor of Biology*  
(1971), B.S., Ph.D. (Syracuse University)
- SZNAIER, MARIO**, *Assistant Professor of Engineering*  
(1990), B.S., B.S.E.E., M.S.E.E. (University of Washington)
- TANZI, LAWRENCE A.**, *Associate Professor of Communication*  
(1969), B.S.M.E., M.S., Ph.D. (Indiana University)
- TAYLOR, DORIS M.**, *Visiting Instructor of Accounting*  
(1987), M.S. (University of Central Florida)
- TAYLOR, FINLEY M.**, *Assistant Professor of Foreign Languages and Literatures*  
(1970), A.B., M.A., Ph.D. (University of Tennessee)
- TAYLOR, JAMES S.**, *Director Environmental Systems Engineering Institute and Professor of Engineering*  
(1977), B.S.I.E., M.S., Ph.D. (University of Florida), P.E. (Florida)



- TAYLOR, K. PHILLIP**, *Professor of Communication*  
(1970), B.A., Ph.D. (Indiana University)
- TAYLOR, MICHAEL D.**, *Professor of Mathematics*  
(1968), B.A., M.S., Ph.D. (Florida State University)
- TAYLOR, WALTER K.**, *Professor of Biology*  
(1969), B.S., M.S., Ph.D. (Arizona State University)
- TEEPLE, EUGENE E.**, *Professor of Marketing*  
(1968), B.S., M.B.A., D.B.A. (University of Oregon)
- TELL, PHILLIP M.**, *Associate Professor of Psychology*  
(1969), B.A., M.A., Ph.D. (University of Virginia)
- THOMAS, MARGARET H.**, *Interim Chair, Department of Psychology and  
Professor of Psychology*  
(1971), B.A., M.A., Ph.D. (Tulane University)
- THOMPSON, RICHARD A.**, *Professor of Education*  
(1969), B.S., M.S., Ed.D. (Ball State University)
- THOMSON, DOUGLAS R.**, *Assistant Professor of Military Science*  
(1989), B.A., M.A., M.A. (University of Central Florida)
- THORNTON, DEBORAH P.**, *Visiting Assistant Professor of Health Sciences*  
(1989), B.S., M.Ed. (University of North Carolina)
- TOWLE, HERBERT C.**, *Professor of Engineering*  
(1970), B.S.E., M.S.E., Ph.D. (University of Michigan), P.E. (Florida, New York)
- TREFONAS, LOUIS M.**, *Professor of Chemistry*  
(1981), B.A., M.S., Ph.D. (University of Minnesota)
- TRIMBLE, JOHN L.**, *Visiting Assistant Professor of Finance*  
(1990), B.S., M.A., Ph.D. (Texas A&M University)
- TUBBS, LeVESTER**, *Vice President for Student Affairs and Associate  
Professor of Education*  
(1980), B.S., M.S., Ed.D. (University of Missouri-Columbia)
- TUCKER, RICHARD D.**, *Professor of Psychology*  
(1972), A.B., M.A., Ph.D. (Emory University)
- TURNAGE, JANET J.**, *Associate Professor of Psychology*  
(1981), B.A., M.S., Ph.D. (Iowa State University)
- TZANNES, NICOLAOS S.**, *Chair, Electrical Engineering and  
Communication Sciences, Professor of Engineering*  
(1986), B.E.E., M.E.E., Ph.D. (The Johns Hopkins University)
- UMPHREY, ROBERT E.**, *Professor of English*  
(1970), B.A., M.A., Ph.D. (University of Washington)
- UNKOVIC, CHARLES M.**, *Professor of Sociology*  
(1968), B.A., M.A., Ph.D. (University of Pittsburgh)
- UTT, HAROLD A. Jr.**, *Assistant Professor of Communicative Disorders*  
(1981), M.S., Ph.D. (Florida State University)
- VAJRVELU, KUPPALAPALLE**, *Associate Professor of Mathematics*  
(1984), B.A., M.S., Ph.D. (Indian Institute of Technology)
- VAN STRYLAND, ERIC W.** *Professor of Physics*  
(1987), B.S., Ph.D. (University of Arizona)
- VAZQUEZ, EMIL C.**, *Assistant Professor of Engineering Technology*  
(1987), B.S.E.E., M.B.A., (InterAmerican University), P.E. (Florida)
- VEIT, MARCIA R.**, *Visiting Instructor of Accounting*  
(1980), B.A., M.B.A. (University of Arkansas), C.P.A.
- VELEZ, DIANA**, *Assistant Dean, College of Arts and Sciences*  
(1991) B.A., Ph.D. (Princeton University)
- VEMPATY, N. RAO**, *Assistant Professor of Computer Science*  
(1990), B.S., M.S., Ph.D. (University of Texas)
- VEMULAPATI, UDAYA**, *Assistant Professor of Computer Science*  
(1990), B.S., Ph.D. (Pennsylvania State University)
- VENTRE, GERARD G.**, *Associate Professor of Engineering*  
(1969), As.E., M.S., Ph.D. (University of Cincinnati), P.E. (Florida)
- VICKERS, DAVID H.**, *Acting Chair Department of Biology and  
Associate Professor of Biology*  
(1969), B.S., M.S., Ph.D. (Louisiana State University)

- VILLAIRE, SONJA S.**, *Visiting Assistant Professor of Accounting*  
(1991), Ed.D. (College of William and Mary)
- VITTES, M. ELLIOT**, *Chair, Department of Political Science and Associate Professor of Political Science*  
(1983), B.A., M.A., Ph.D. (University of Massachusetts)
- WAHID, PARVEEN F.**, *Associate Professor of Engineering Science*  
(1984), B.S., M.S., Ph.D. (Indian Institute of Science, Bangalore)
- WAHLMAN, MAUDE**, *Professor of Art*  
(1985), B.A., M.A., M.Phil., Ph.D. (Yale University)
- WALKER, ROBERT L.**, *Professor of Engineering*  
(1972), B.S., M.S., Ph.D. (Stanford University), P.E. (Florida)
- WALLACE, RONALD L.**, *Associate Professor of Anthropology*  
(1975), B.A., M.A., Ph.D. (University of Florida)
- WALTERS, CHERYL D.**, *Assistant University Librarian*  
(1987), B.A., M.L.S. (University of South Florida)
- WALTERS, JOHN S.**, *Associate University Librarian*  
(1990), B.S., M.A. (Pennsylvania University)
- WANG, ALVIN Y.**, *Associate Professor of Psychology*  
(1987), B.A., Ph.D. (State University of New York at Stony Brook)
- WANG, MORGAN**, *Assistant Professor of Statistics*  
(1991), B.S., M.S., Ph.D. (Iowa State University)
- WANIELISTA, MARTIN P.**, *Professor of Engineering*  
(1970), B.S.C.E., M.S., Ph.D. (Cornell University), P.E. (Florida)
- WARD, JEANETTE A.**, *Head, Serials Department and University Librarian*  
(1984), B.S., M.L.S. (Rutgers University)
- WASHINGTON, DAVID W.**, *Associate Professor of Molecular Biology and Microbiology*  
(1974), B.S., M.S., Ph.D. (Texas A & M University)
- WAYSON, ROGER L.**, *Assistant Professor of Engineering*  
(1991), Ph.D. (Vanderbilt) P.E. (Texas, Tennessee, Florida)
- WEAVER, WILLIAM C.**, *Associate Professor in Finance*  
(1985), B.S., M.B.A., Ph.D. (Georgia State University)
- WEEKS, ARTHUR R.**, *Assistant Professor of Computer Engineering*  
(1989), B.S.E., M.S.E., Ph.D. (University of Central Florida)
- WEHR, PAUL W.**, *Professor of History*  
(1969), A.B., M.A., Ph.D. (Ball State University)
- WEIDER-HATFIELD, DEBORAH**, *Professor of Communication*  
(1990), Ph.D. (Purdue University)
- WELCH, JUDITH K.**, *Assistant Professor of Accounting*  
(1988), B.A., M.B.A., Ph.D. (Florida State University)
- WELCH, PAUL R.**, *Associate Professor of Accounting*  
(1988), B.S., M.B.A., Ph.D. (University of Florida)
- WELKE, JAMES W.**, *Director, School of Communication and Professor of Communication*  
(1986), A.B., M.A., Ph.D. (Indiana University)
- WELKER, PATRICIA E.**, *Assistant Professor of Health Sciences*  
(1986), A.S., B.S., M.A. (Idaho State University)
- WELLMAN, CHARLES W.**, *Associate Professor of Art*  
(1971), B.F.A., M.A., M.F.A. (The University of New Mexico)
- WEST, GAIL M.**, *Visiting Professor, Instructional Programs*  
(1991), B.A., M.A., Ph.D. (Florida State University)
- WESTRICK, ROBERT W.**, *Associate Vice President for Academic Affairs and Director, Brevard Campus*  
(1981), B.A., M.Ed., Ed.D. (University of Alabama)
- WHILE, MARGARET L.**, *Assistant Professor of Education*  
(1985), B.S., M.A., Ed.D. (Ball State University)
- WHISLER, BRUCE A.**, *Assistant Dean, College of Arts and Sciences and Associate Professor of Music*  
(1971), B.A., Ph.D. (University of Rochester)
- WHITE, DANIEL R.**, *Assistant Professor of Humanities*  
(1988) B.A., M.A., Ph.D. (Florida State University)
- WHITE, KENNETH R.**, *Associate Professor of Economics*  
(1968), B.S., Ph.D. (University of Oklahoma)



- WHITE, ROSEANN S.**, *Professor of Molecular Biology and Microbiology*  
(1969), B.S., Ph.D. (University of Texas)
- WHITEHOUSE, GARY E.**, *Dean, College of Engineering and Professor of Engineering*  
(1978), B.S.I.E., M.S.I.E., Ph.D. (Arizona State University), P.E. (Florida, Pennsylvania)
- WHITNEY, JOHN C.**, *Associate Professor of Music*  
(1982), B.S., M.M. (New England Conservatory)
- WHITTIER, HENRY O.**, *Professor of Biology*  
(1968), B.S.Ed., M.A., Ph.D. (Columbia University)
- WILDMAN-PEPE, JULIE L.**, *Assistant in Statistical Consulting*  
(1984), B.A., M.S. (Purdue University)
- WILLIAMS, HENRY L.**, *Assistant Professor of Engineering Sciences*  
(1990) B.A., M.S., Ph.D. (Washington University)
- WILLIAMS, KARRI J.**, *Associate Professor, College of Education*  
(1984), B.S., M.Ed., Ph.D. (University of Arizona)
- WINK, DIANE M.**, *Assistant Professor of Nursing*  
(1987), B.S., M.A., M.S.N. (Villanova University)
- WINTER, PETER J.**, *Assistant Professor of Management*  
(1990), B.B.A. (University of Georgia)
- WODZINSKI, RUDY J.**, *Professor of Molecular Biology and Microbiology*  
(1970), B.S., M.S., Ph.D. (University of Wisconsin)
- WOELK, MARTHA D.**, *Visiting Instructor of History*  
(1990), B.A., M.A. (University of Central Florida)
- WOLF, J. GARY**, *Distinguished Service Professor of Music*  
(1972), B.M.Ed., M.M., D.M.A. (Eastman School of Music)
- WOOD, ALEXANDER T.**, *Associate Professor of Education*  
(1969), B.A., M.S., Ph.D. (Florida State University)
- WOOTEN, WILLIAM**, *Assistant Professor of Psychology*  
(1985), B.A., M.S., Ph.D. (Memphis State University)
- WORBS, HELMUTH E.**, *Associate Professor of Engineering Technology*  
(1978), B.S.M.E., M.S.M.E. (Stanford University), P.E. (Florida, California)
- WORKMAN, DAVID A.**, *Associate Professor of Computer Science*  
(1976), B.S., M.S., Ph.D. (University of Iowa)
- WORRELL, LEWIS T.**, *Associate Professor of Health Sciences*  
(1976), B.S., M.P.H. (University of Central Florida)
- WRANCHER, ELIZABETH A.**, *Associate Professor of Music*  
(1974), B.M. (Indiana University), Prima Soprano Koblenz, Augsburg and Detmold
- WYATT, WYATT** *Professor of English*  
(1970), B.A., M.A. (Columbia University)
- WYCOFF, EDGAR B.**, *Associate Professor of Communication*  
(1972), B.S., M.B.A., Ph.D. (Florida State University)
- XANDER, JAMES A.**, *Associate Professor of Economics*  
(1969), B.S., Ph.D. (University of Georgia)
- YARBROUGH, PATRICIA**, *Chair and Professor of Physical Therapy*  
(1992), P.T., M.P.H., Ph.D. (Georgia State University)
- YON, DONNA L.**, *Assistant Professor of Accounting*  
(1984), B.S., M.Acc., Ph.D. (Texas A&M University)
- YOUSMAN, KAREN G.**, *Visiting Assistant Instructor of Health Sciences*  
(1990), A.A.S., B.A., M.P.A. (Golden State University)
- YOUSEF, YOUSEF A.**, *Professor of Engineering*  
(1970), B.S.C.E., M.S., Ph.D. (University of Texas), P.E. (Florida, Texas)
- YUAN, JIANN S.**, *Assistant Professor of Engineering*  
(1989), B.S.E., M.S.E., Ph.D. (University of Florida)
- ZANK, GAIL M.**, *Assistant Professor of Marketing*  
(1990), B.S., M.B.A. (Texas A&M University)
- ZAYED, AHMED I.**, *Professor of Mathematics*  
(1990), B.S., M.S., Ph.D. (University of Wisconsin)

## EMERITUS STATUS

### BARR-JOHNSON, VIRGINIA

(1971), B.A., M.Ed., Ph.D. (Florida State University)  
*Professor Emeritus of Education*

**BROWNE, ROLAND A.**

(1968), B.A.M.A., C.E.F. (Queen's University, Canada)  
*Professor Emeritus of English*

**COLBOURN, TREVOR**

(1978), B.A., A.M., M.A., Ph.D. (The 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*

**FOWLER, EARL C.**

(1970), B.S.Ed., M.Ed., Ed.D. (University of Akron)  
*Professor Emeritus of Education*

**GREEN, HAROLD E.**

(1968), B.S., M.Ed., Ed.D. (University of Missouri)  
*Professor Emeritus of Education and Director, Daytona Beach Campus*

**GRIFFITH, HAROLD L.**

(1972), B.S., M.S. (Pennsylvania State University), P.E. (Florida)  
*Professor Emeritus of Engineering Technology*

**HARDEN, RICHARD C.**

(1967) B.M.E., B.E.E., M.S.E., Ph.D. (University of Florida) P.E. (Florida)  
*Professor Emeritus of Engineering and Director, South Orlando Campus*

**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*

**LYTLE, ERNEST J.\***

(1968), B.S., M.A., Ph.D. (University of Florida)  
*Professor Emeritus of Mathematical Sciences*

**McGEE, NANCY R.\***

(1970), B.S., M.A., Ed.D. (Florida Atlantic University)  
*Distinguished Professor Emerita of Education*

**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*

**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)

*Professor Emeritus of Statistics*

**REIDENBACH, RICHARD C.**

(1970), B.A., M.S., Ph.D. (St. Louis University)

*Professor Emeritus of Management*

**SCHRADER, GEORGE F.**

(1969), B.S., M.S., Ph.D. (University of Illinois), P.E. (Florida, Illinois)

*Professor Emeritus of Engineering*

**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*

\*Deceased

**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 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 Howard Phillips (Posthumous), Doctor of Public Service
December, 1981	Gene Burns, Master of Letters
April, 1982	Andrew Duda, Jr., Doctor of Agricultural Service Ferdinand Duda, Doctor of Agricultural Service John Duda, Doctor of Agricultural Service Robert J. Whalen, Doctor of Engineering Science
July, 1982	Mary Jo Stroud Davis, Doctor of Public Service 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 Charles Wadsworth, Doctor of Public Service
December, 1984	Allan E. Gottlieb, Doctor of Laws
June, 1985	George J. Becker, Jr., Doctor of Public Service Jerry Collins, Doctor of Public Service D. Robert Graham, Doctor of Public Service Walter O. Lowrie, Doctor of Engineering Science 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 John D. Holloway, Doctor of Public Service Wolfgang-Detlef Petri, Doctor of Commercial Science
May, 1989	David Albertson, Doctor of Humane Letters Frank M. Hubbard, Doctor of Public Service William S. Jenkins, Doctor of Humane Letters Charles N. Millican, Doctor of Laws James C. Robinson, Doctor of Public Service

May, 1990	Helen Harris Perlman, Doctor of Humane Letters Thaddeus Seymour, Doctor of Letters
May, 1991	Roald Hoffman, Doctor of Science
May, 1992	Robert A. Bryan, Doctor of Humane Letters

## COURTESY APPOINTMENTS

- ALBERT, DAVID B.**, *Clinical Faculty, Cardiopulmonary Sciences*  
M.B.A., RRT. (Florida Institute of Technology)
- ALBERT, JONATHON C.**, *Clinical Faculty, Cardiopulmonary Sciences*  
RRT, B.S. (University of Central Florida)
- ALEXANDER, GREGOR**, *Clinical Faculty, Cardiopulmonary Sciences*  
M.D. (Javeriana University)
- ALMEIDA, ARTIE**, *Faculty Associate, Instructional Programs*  
M.A. (University of Central Florida)
- ARTHUR, THOMAS**, *Clinical Faculty, Cardiopulmonary Sciences*  
B.S., RRT, RDMS. (University of Central Florida)
- BARANCZAK, STANISLAW**, *Professor of Foreign Languages and Literatures*  
M.A., Ph.D. (Adam Mickiewicz University)
- BARGAR, SHERRI**, *Faculty Associate, Educational Services*  
M.S. (Rollins College)
- BAUSHER, MICHAEL G.**, *Research Associate of Molecular Biology and Microbiology*  
B.S., M.S., Ph.D. (University of Florida)
- BECKER, GARY**, *Faculty Associate, Educational Services*  
M.S. (Syracuse University)
- BERTRAM, BURT**, *Associate, Educational Services*  
Ed.D. (University of Florida)
- BEST, JAMES**, *Faculty Associate in Theatre*
- BIRD, MARY**, *Faculty Associate, Educational Foundations*  
MSM (Rollins College)
- BOLVES, ELLEN**, *Faculty Associate, Educational Services*  
M.A. (University of Central Florida)
- BOULWARE, ZELLA**, *Faculty Associate, Educational Services*  
M.Ed. (University of Central Florida)
- BRIMER, MARK**, *PT, Clinical Faculty, Physical Therapy*  
B.S. (Florida International University), M.B.A. (Florida Technological University)
- BROWN, ASHMUN**, *Clinical Faculty, Health Sciences*  
J.D. (University of Michigan)
- BURNSSED, SHERI**, *PT, Clinical Faculty, Physical Therapy*  
B.S. (Simmons College)
- BUTKINS, PETER**, *Faculty Associate, Educational Services*  
M.S. (Niagara University)
- CAPRAUN, LYNN W.**, *Clinical Faculty, Cardiopulmonary Sciences*  
RTT, B.S., M.S. (University of Central Florida)
- CARLETON, CHARLES C.**, *Clinical Faculty, Medical Laboratory Sciences*  
M.D. (McGill University)
- CARR, EDWARD O.**, *Clinical Faculty, Medical Laboratory Sciences*  
S.B.B., M.T., (ASCP), B.S. (Mississippi State)
- CASSIDY, DAVID C.**, *Clinical Faculty, Physical Therapy*  
M.Ed. (Auburn University)
- CLARKE, THOMAS L.**, *Faculty Associate, Department of Mathematics*  
B.S., M.S., Ph.D. (University of Miami)
- CLAYTON, CAROL S.**, *Ph.D., PT, Clinical Faculty, Physical Therapy*  
B.S. (Indiana University), Ph.D. (University of Mississippi)
- COHEN, CINDY**, *Clinical Faculty, Cardiopulmonary Sciences*  
RRT, A.S. (Valencia Community College)
- COMKOWYCZ, SHARON**, *Clinical Faculty, Physical Therapy*  
M.S. (South Connecticut State University)
- COMPANION, MICHAEL A.**, *Faculty Associate, Psychology*  
Ph.D. (New Mexico State University)



- CONVERTINO, VICTOR A.**, *Clinical Faculty, Cardiopulmonary Sciences*  
Ph.D. (University of California)
- CURRY, RUPERT C., JR.**, *Clinical Faculty, Cardiopulmonary Sciences*  
M.D. (University of Florida)
- CREAMER, ANDREW**, *Faculty Associate, Educational Foundations*  
Ed.D. (University of Florida)
- DENNISON, JOLENE**, *Clinical Faculty, Radiologic Sciences*  
RT, (ARRT)
- DEW, DOUGLAS K.**, *Clinical Faculty, Health Sciences*  
M.D. (University of Miami School of Medicine)
- DORN, JAMES S.**, *Clinical Research Associate Health Sciences*  
D.V.M., (Cornell University)
- DUDLEY, GARY A.**, *Clinical Faculty, Cardiopulmonary Sciences*  
Ph.D. (Ohio State University)
- DRYDEN, TOM**, *Clinical Faculty, Medical Laboratory Sciences*  
B.S. (Florida Southern College)
- EVAN-IWANOWSKI, ROSS**, *Professor, Department of Mechanical and Aerospace Engineering*  
M.A., Ph.D. (Cornell University)
- FISHER, KENNETH**, *Faculty Associate, Educational Services*  
Ed.D. (University of Florida)
- FITZPATRICK, JACK**, *Clinical Faculty, Cardiopulmonary Sciences*  
RRT, B.S. (University of Central Florida)
- FOWLER, JULIE**, *Clinical Faculty, Radiologic Sciences*  
R. T. (ARRT)
- FRANKEL, ARTHUR**, *Research Associate of Molecular Biology & Microbiology*  
B.S., M.D. (Harvard College)
- FREY, MARY A.**, *Clinical Faculty, Cardiopulmonary Sciences*  
Ph.D. (George Washington University)
- GIBSON, JANE STRANDBURG**, *Research Associate 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.**, *Clinical Faculty, Cardiopulmonary Sciences*  
M.D. (University of Miami)
- GLAIZE, DAVID**, *Faculty Associate, Educational Services*  
Ed.D. (University of Central Florida/University of Florida)
- GRAHAM, ELEANOR**, *Clinical Faculty, Medical Laboratory Sciences*  
M.S. (Wayne State University)
- GRIECO, ALAN**, *Clinical Faculty, Health Sciences*  
Ph.D. (Memphis State University)
- GUY, ALBERT G.**, *Professor of Chemistry*  
D.Sc (Carnegie Institute of Technology)
- HEDDENS, JAMES**, *Faculty Associate, Instructional Programs*  
Ed.D. (University of Northern Colorado)
- HELMS, ALBERT W.**, *Faculty Associate, Educational Services*,  
Ed.D., (University of Central Florida)
- HINKLE, C. ROSS**, *Assistant Professor of Biology*  
Ph.D. (University of Tennessee)
- HOLIMON, JAMES L.**, *Clinical Faculty, Medical Laboratory Sciences*  
M.D. (Medical College of Virginia)
- JACKSON, BARBARA**, *Clinical Faculty, Medical Record Administration*  
RRA, B.S. (Florida Technological University)
- JAICKS, RUSSELL RAYMOND**, *Research Associate of Molecular Biology & Microbiology*  
B.S., M.D. (Eastern Virginia Medical School)
- JANECZKO, DONNA**, *Faculty Associate, Instructional Programs*  
M.Ed., (University of Central Florida)
- JOHNSON, LAURA M.**, *PT, Clinical Faculty, Physical Therapy*  
B.S., M.S. (University of Puerto Rico)
- KALE, HERBERT W., II**, *Assistant Professor of Biology*  
Ph.D. (University of Georgia)

- KANE, SUSAN**, *Clinical Faculty, Radiologic Sciences*  
RT (ARRT), B.S. (University of Central Florida)
- KAPLAN, DAVID T.**, *Faculty Associate, Biology*  
B.S., M.S., Ph.D. (University of California)
- KAUFMAN, ROGER**, *Faculty Associate, Industrial Engineering and Management Systems*  
B.S., M.S., Ph.D. (New York University)
- KENNEDY, ROBERT S.**, *Professor of Psychology*  
B.A., M.A., Ph.D. (University of Rochester)
- KIMEL, ISODORO**, *Professor of Physics*  
Ph.D. (University of Chicago)
- KINCAID, J. PETER**, *Faculty Associate, Psychology*  
Ph.D. (Ohio State University)
- KLOTZ, SOLOMAN D.**, *Research Associate in Molecular Biology and Microbiology and  
Clinical Faculty, Cardiopulmonary Science.*
- KNOTT, WILLIAM M.**, *Assistant Professor of Biology*  
Ph.D. (North Carolina State University)
- KOGUT, ROBERT S.**, *PT, Clinical Faculty, Physical Therapy*  
B.S. (Temple University)
- KUHNS, ROLF M.**, *PT, Clinical Faculty, Physical Therapy*  
B.S. (University of Florida)
- LANGDON, JOHN**, *Associate Professor of Health Sciences*  
B.S., M.D. (Creighton University)
- LELI, DANO**, *Faculty Associate, Psychology*  
B.A., M.S., Ph.D. (University of South Florida)
- LIPMAN, BRIAN**, *Clinical Faculty, Cardiopulmonary Sciences*  
F.C.P. (College of Medicine of South Africa)
- LIVESAY, KELLAND**, *Faculty Associate, Educational Services*  
Ph.D. (Indiana State University)
- LONGLEY, ROSS E.**, *Research Associate in Molecular Biology and Microbiology*  
B.S., M.S., Ph.D. (University of Oklahoma)
- LYONS-OLSKI, ELLEN**, *PT, Clinical Faculty, Physical Therapy*  
B.S. (Quinnipiac College), M.A. (Columbia University)
- MARVIN, PAUL W.**, *Clinical Faculty, Radiologic Sciences*  
B.S., M.S. (Bucknell University)
- MAYER, RICHARD T.**, *Professor of Chemistry*  
Ph.D. (University of Georgia)
- McGEE, CARLA F.**, *Clinical Faculty, Medical Laboratory Sciences*  
B.S. MT (ASCP) (Winona State University)
- McCAUSLAND, ELIZABETH A.**, *Clinical Faculty, Cardiopulmonary Sciences*  
B.S. (Florida Technological University)
- McPHERSON, BRENDA**, *Faculty Associate, Educational Services*  
M.S. (University of Central Florida)
- MEDIN, A. LOUIS**, *Professor of Engineering*  
Ph.D. (Ohio State University)
- MENGEL, MARVIN C.**, *Clinical Faculty, Cardiopulmonary Sciences*  
M.D. (Johns Hopkins University)
- NELSON, BILL**, *Distinguished Fellow, Space Education and Research Center*  
B.A., J.D. (University of Virginia)
- ODELL, DANIEL KEITH**, *Professor of Biology*  
B.S., M.A., Ph.D. (University of California, Los Angeles)
- PENTELLA, MICHAEL A.**, *Clinical Faculty, Medical Laboratory Sciences*  
B.S., M.S. (Thomas Jefferson University)
- PELLOSIE, JOHN C.**, *Clinical Faculty, Health Sciences*  
D.O. (Philadelphia College of Osteopathic Medicine & Surgery)
- PINDER, A.R.**, *Professor of Chemistry*  
B.Sc., Ph.D., D. Phil., D.Sc. (University of Sheffield)
- PRITCHARD, PETER C. H.**, *Professor of Biology*  
B.A., M.A., Ph.D. (University of Florida)
- PYLES, VALORIE K.**, *Clinical Faculty, Medical Laboratory Sciences*  
A.A., B.S. MT(ASCP) (University of South Florida)
- RINI, JAMES**, *Faculty Associate, Educational Services*  
Ed.D., (University of Central Florida/University of Florida)



- ROBERTS, W.J., JR.**, *Clinical Faculty, Medical Laboratory Sciences*  
A.A., B.S. MT(ASCP) (Florida International University)
- ROGERS, ROBERT L., JR.**, *Clinical Faculty, Cardiopulmonary Sciences*  
RRT, B.S. (University of Central Florida)
- SAGERT, REBA**, *Clinical Faculty, Medical Record Administration*  
B.S., RRA (Loma Linda University)
- SCHUNEMAN, GAIL, PT**, *Clinical Faculty, Physical Therapy*  
B.S. (Tufts University)
- SCOTT, MEREDITH LEE**, *Clinical Faculty, Cardiopulmonary Sciences*  
M.D. (University of Florida Medical School)
- SINDLER, ROBERT B.**, *Clinical Faculty, Cardiopulmonary Sciences*  
D.V.M. (University of Georgia)
- SINGER, MICHAEL JAMES**, *Faculty Associate, Psychology*  
B.A., M.S., Ph.D. (University of Maryland)
- SMITH, JUDITH**, *Clinical Faculty, Medical Record Administration*  
RRA, B.S. (Florida Technological University)
- STEBBINS, CONSUELA**, *Assistant Professor of Foreign Languages and Literatures*  
B.A., Ed.D. (Florida State University)
- STERLING, JO**, *Clinical Faculty, Medical Laboratory Sciences*  
B.S. MT(ASCP) (Southwest Missouri State University)
- STONE, LINDA**, *Faculty Associate, Educational Services*  
Ph.D., (University of Florida)
- STRAYER, RICHARD F.**, *Research Associate in Molecular Biology and Microbiology*  
Ph.D. (Michigan State University)
- SUDBURY, SHELLY, RPT**, *Clinical Faculty, Physical Therapy*  
B.S. (Mayo Foundation School of Physical Therapy)
- SWERDLOW, CATHY**, *Clinical Faculty, Medical Record Administration*  
RRA, B.S. (University of Western Carolina)
- THOMPSON, CORLEY M.**, *Associate Professor of Chemistry and Research Chemist*  
B.S., M.S., Ph.D. (Auburn University)
- UHRAN, TERRY**, *Clinical Faculty, Physical Therapy*  
B.S. (Southern College), M.B.A. (Rollins College)
- VELEZ, DIANA**, *Assistant Professor of History*  
B.A., Ph.D., (Princeton University)
- VISNOV, LINDA, PT**, *Clinical Faculty, Physical Therapy*  
B.S. (Temple University)
- VONSTILLE, W. T.**, *Clinical Faculty of Health Sciences*  
B.S., M.S., Ph.D. (Columbia University)
- 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)
- WELSH, PHILIP C.**, *Research Associate of Molecular Biology & Microbiology*  
B.A., M.S. (University of North Carolina)
- WHISLER, MARILYN W.**, *Associate Professor in Political Science*  
B.A., M.A., Ph.D. (University of Wisconsin)
- WILSON, PATRICIA R.**, *PT, Clinical Faculty, Physical Therapy*  
B.S. (University of Vermont)
- WINDHAM, STEVE C.**, *Clinical Research Associate, Health Sciences*  
B.S., M.P.H., (University of Alabama, Birmingham)
- YESAWICH, PETER**, *Professor of Hospitality Management*  
B.S., M.S., Ph.D., (Cornell University)
- YING, NELSON**, *Faculty Associate, Department of Physics*  
B.S., M.S., Ph.D. (Adelphi University)
- YOKOMI, RAYMOND K.**, *Faculty Associate, Biology*  
B.S., Ph.D. (University of California)
- YOUNG, DENISE L.**, *Assistant Professor of Social Work*  
B.A., M.S.W., Ph.D. (University of Michigan)

# INDEX

Academic		Business Administration, College of	145
Policies	58	Attendance Requirement	145
Probation	60	Business Administration, General	150
Programs	85	Business Education	169
Resource Center, Student Academic	83	Calendar, University	10-14
Standing	60	Campuses, Area	19
Terms and Actions-Defined	60	Maps	inside front and back covers
Warning	60	Orlando	18
Accounting, School of	147	Canadian Studies	102
Accreditation	17	Cardiopulmonary Sciences	197
Accredited Institutions	43	Career Resource Center	31
ACT (Am. College Test)	38, 39	Catalog, Choice of	70
Add/Drop Policy	61	Center for Applied Human Factors	
Administration, UCF Offices of	6	in Aviation (CAHFA)	208
Admissions	36	Center for Research in Electro-Optics	
Application for	36	and Lasers (CREOL)	207
Deadline	37	Central Florida Research Park	27
Early Admission	64	Checks, Personal	48
Transfer	39	Chemistry	102, 166
Undergraduate	36	Child Care (see Creative School)	
Upper Division	74	Civil and Environ. Engineering	176
Admissions and Standards		Classification by Semester Hours	58
Committee	36	College Level Academic Skills	
Advanced Placement Program	66	Test (CLAST)	74
Advisement (See Calendar)		College Level Examination Program	
College of Arts & Sciences (OASIS)	93	(CLEP)	64
Aerospace Engineering	171	College Preparatory Instruction	43
Aerospace Studies	76, 179	Communication, School of	104
Afro-American Studies	94	Communicative Disorders	187
Affirmative Action	2	Community Arts	110
AIDS Institute - see HIV-AIDS		Community College Relations	79
Air Force (See Aerospace Studies)		Computer Center	111
American Studies Program	94	Computer Engineering	177
Anthropology	139	Computer Engineering Technology	182
Appeal, Fee	48	Computer Science	111
Area Campuses	19	Confidentiality of Records	29
Army ROTC	77	Continuing Education, Center for	206
Art	94, 110	Continuous Enrollment	70
Art Education	161	Cooperative Education	57, 79
Arts and Sciences, College of	91	Corequisite Course (CR)	215
Asian Studies	97	Correspondence Courses	74
Associate of Arts Degree	40, 85	Costs—See Fees	
Athletics, Intercollegiate	26	Counseling and Testing Center	31
Audit	44, 58	Course Classification	212
		Course Descriptions	212
Baccalaureate Degree	85, 86	Course Load Maximum	59
Second Degree	86	Course Numbering System	212, 215
Baccalaureate Honors	63	Course Substitution	
Biology	97, 100, 166	General Education Program	72
Board of Education, State of Florida	6	Courses-Special	215
Board of Regents, State of Florida	6	Courtesy Faculty Appointments	347
Bookstore	26	CPA Exam Requirements	147
Botany	100	Creative School for Children	34
Brevard Area Campus	19	Creative Writing	114



Credit		Programs Available at UCF	52
By Examination	69	Grants	52
Transfer	38, 42	Employment	52
While Disqualified/Excluded	61	Loans	52
CREOL	207	Loans and Employment Not Based on Need	52
Criminal Justice and Legal Studies	188	Other Services	53
Daytona Area Campus	21	Scholarships	53
Dean of Students	29	Award Packages	53
Dean's List	63	Automatic Deferment	54
Degrees Offered	85	Disbursements	54
Degree Requirements	70	Refunds and Repayment	55
Design Engineering Technology	183	Requirements to Receive Aid	56
Directory, Campus Services	15	Satisfactory Academic Progress	56
Disqualification	57, 61	Financial Aid for Graduate Students	57
Double Major	86	Student Rights and Responsibilities	57
Drug-Free Work Place/ Drug-Free Schools	2	Florida-Canada Institute	209
Dual Enrollment—See Early Admission		Florida, East Central	18
Early Admission	64	Florida Information Resources Network (FIRN)	111
Economics Education, Center for	210	Florida Resident/Tuition	46
Economics (BA)	113	Florida Solar Energy Center	209
Economics (BSBA)	148	Florida-USSR Institute	204
Education, College of	155	Food Services	32, 46
Educational Foundations	158	Foreign Language Combination	117
Educational Services	158	Proficiency Requirement	73
Electrical Engineering	178	Proficiency Requirement for Coll. of A&S	93
Electronics Engineering Technology	183	Foreign Language Education	163
Elementary Education	162	Foreign Languages and Literatures	116
Employment Opportunities	51, 79	Foreign Study Centers	93
Endowed Chairs	23	Forensic Science	104
Engineering, College of	172	Foundation, UCF	26
Engineering Technology	174, 175, 181	French	7, 163
English	114	Freshman Applicants	38
English Language Arts Educ.	163	General Education Program	70
English Language Program	see Center for Multilingual Multicultural Studies	Gerontology Certification Program	190, 192
Environmental Engineering	176	Gordon Rule	73
Equal Opportunity	2	Grade Forgiveness Policy	42, 62
Ethics Policy, Academic	58	Grading System	59
Evening Student Services	33	Graduate Programs	86
Examination Scores and GPA	38	Graduate Student	57
Exceptional & Physical Education	158	Graduation Requirements	70, 75
Exclusion, Academic	61	Handicapped Student Services	34
Faculty	319	Health & Public Affairs, College of	187
Courtesy Appointments	347	Health Fee	46
Faculty, Emeritus	344	Occupations	170
Fees, Tuition and	46, 48	Sciences	190, 191
Fee Waivers, Appeals, Refunds	48, 49	Services, Student	32
Film (See Motion Picture Tech)		Health Services Administration	191, 192
Finance	149	Hebrew (see Judaic Studies)	
Financial Aid, Office of	50	High School Diploma	38
Determining Eligibility	50	History	119
UCF Application Deadlines	50	HIV-AIDS Institute	207
Application Procedures	50		
Verification	51		
Transfer Students	51		
Independent Student Status	51		

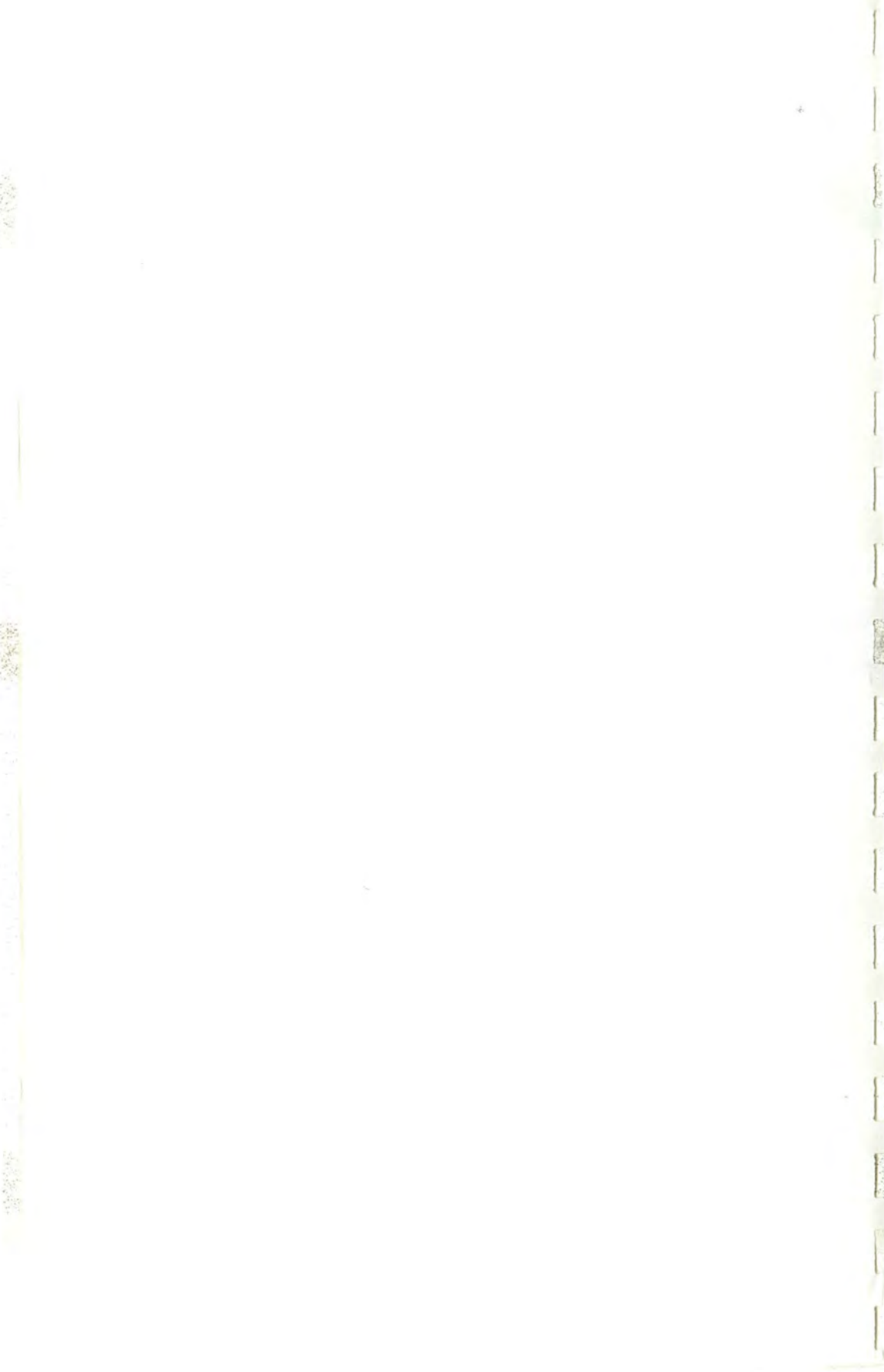
Honorary Degrees Awarded	346	Medical Laboratory Sciences	194
Honors, Academic	63	Medical Record Administration	193
Honors Program, University	80	Microbiology	198
Hospitality Management	151	Military Credit	42
Housing	31, 32	Minor (Consult Departments)	86
Human Factors in Aviation, Applied	203	Minority Student Services	83
Humanities	132	Molecular Biology and Microbiology	198
		Motion Picture Technology (Film)	108
I.D. Card Replacement	46	Multilingual-Multicultural Studies	206
Incomplete Grade	61	Music	125
Industrial Engineering & Management		Music Education	129
Systems	179	Non-Degree Student	44, 59
Industrial/Technical Occupations	171	Nursing	199
Information Systems Engineering		OASIS	93
Technology	184	Operations Engineering Technology	185
Institute for Simulation		Organizational Communication	107
and Training (IST)	207	Orientation, New Student	31
Institutes and Centers for Research	207	Overall Average Defined	60
Instructional Programs	160	Past Due Accounts	48
Instructional Resources	26	Pegasus	1
International Baccalaureate Program	67	Philosophy and Humanities	131
Intn'l Center for Mgmt	211	Philosophy, UCF Statement of	17
Intn'l Students		Photography	see Art, Journalism
Admission of	43	Physical Education	160
Insurance requirement	44	Physical Therapy	200
Intn'l Student Services,		Physics	132, 167
Office of	33, 43	Placement	see Career Resource Ctr
Intn'l Studies and Programs		Policies, Academic	2, 55
see also: Foreign Study	23	Political Science	133
Internship Programs	157	Post-Baccalaureate Student	58
Interpersonal Communication	106	Pre-Health Professions Advising	87
		Prelaw	92, 136
Journalism	106	Preprofessional Programs	87, 91, 92
Judaic Studies	119	Prerequisite Course (PR)	215
		President's Honor Roll	63
Latin-American Area Studies	118, 120	Press, UCF	26
Law	see Pre-Law	Probation, Academic	60
Law Enforcement	see Criminal Justice	Project for the Development of the	
Legal Studies Program	188	Humanities and Fine Arts	26
Liberal Studies Program	120	Provisional Student	59
Libraries, University	25	Psychology	136
Limited Access Programs	37	Public Administration	203
Limnology	100	Purpose, UCF Statement of	17
Linguistics Minor	114		
Literature Minor	114	Radio-Television	108
Local Area Network (LAN) Institute		Radiologic Sciences	195
		Reactivation	36
Majors	85, 86	Readmission	36, 61
Management	152	Recreational Services	33
Management Systems Engineering	see	Records	37
Industrial Engineering		Confidentiality of	29
Maps		Deadline	37
Area Campuses	19-22	Validity of Documents	37
Orlando Area	Inside Front Cover	Refund of Fees (Also, See Calendar)	47
Orlando Campus	Inside Back Cover	Residency	see Florida Resident
Marketing	153	Room and Board	31, 45
Mathematics	123	ROTC (see Air Force; Army)	
Mathematics Education	165	Schedule Changes	61
Mechanical and Aerospace		Scholastic Aptitude Test (SAT)	38, 39
Engineering	179		
Medical History for Admissions	37		



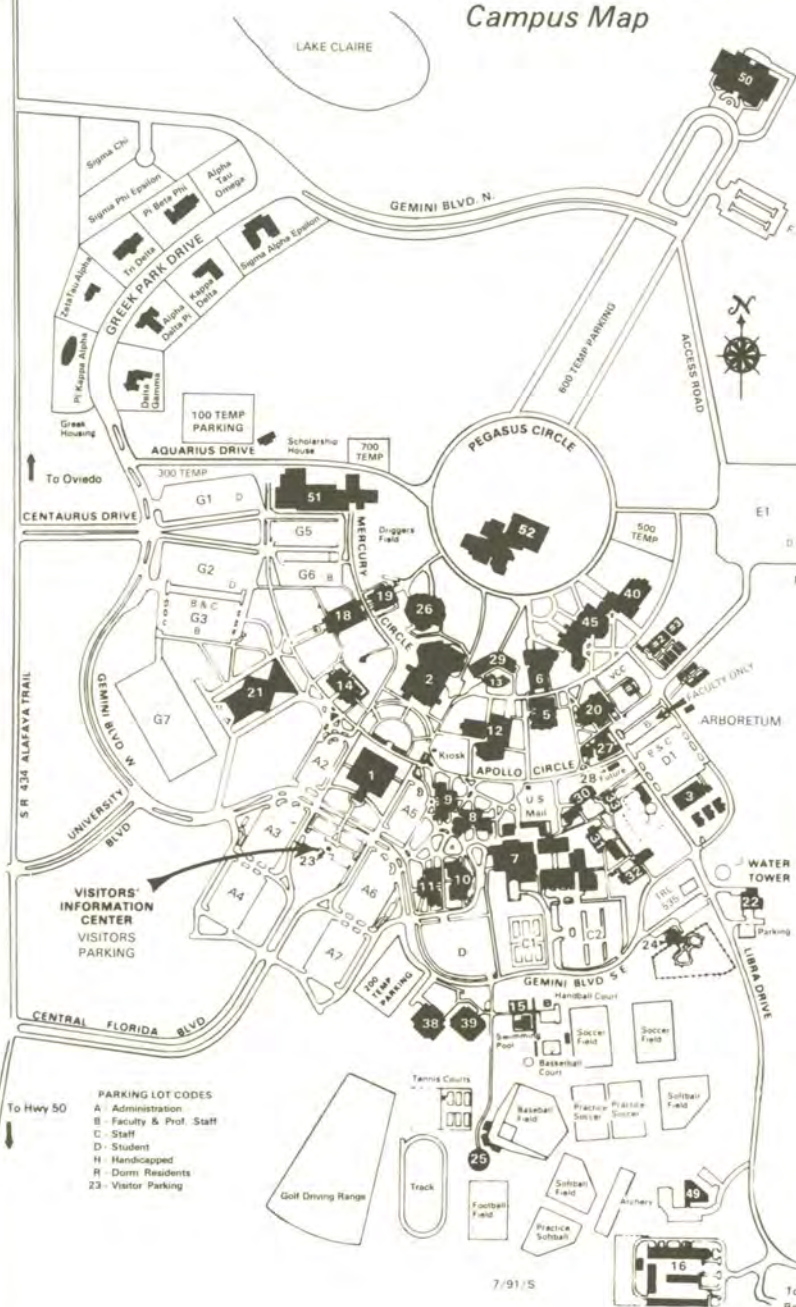
Seal-UCF .....	1	Teacher Certification .....	75, 158
Semester Average .....	60	Technical Documentation, Institute for ..	211
Semester Hours Defined .....	59	Technical Writing Minor .....	114
Senior Citizens .....	45, 49	Technology and Society Minor .....	175
Sinkhole Research Institute, Florida ..	210	Television (see Radio/Television)	
Simulation & Training, Institute for ..	207	Temporary Student .....	44, 58
Small Business Development Center ..	210	Testing and Counseling .....	31
Small Business Institute .....	210	Theatre .....	142
Social Sciences .....	137	Time-Shortened Degree	
Social Science Education .....	168	Opportunities .....	64
Social Work .....	203	TOEFL .....	36, 43
Sociology and Anthropology .....	138	Tourism Studies, Dick Pope Institute ..	210
South Orlando Campus .....	22	Transcript Requests .....	69
Soviet Area Studies .....	118, 140	Transfer	
Space Education Research Center ..	208	Applicant .....	39
Space Studies Minor .....	174	Counseling Manual .....	39, 79
Spanish .....	117, 163	Credits .....	42
Special Student .....	57	Student Financial Aid .....	51
Speech... see Interpersonal Communication		Transient Student .....	44, 58, 62
Statistics .....	140	Tuition and Fees .....	46
Student		Tuition Fee Waivers .....	47, 48
Academic Resource Center		UCF .....	17
(SARC) .....	43, 83	Unaccredited	
Academic Support Services		Colleges, Transfers from .....	41
(SASS) .....	70, 72, 83	Undergraduate Degree	
Affairs .....	29	Requirements .....	69
Center .....	32	Undergraduate Studies, Office of ..	76
Classification .....	58	Upper Division, Admission to .....	74
Conduct .....	30	Vehicle Registration .....	46
Employment .....	51	Veterans' Affairs and Benefits .....	34
Government .....	29	Vocational Education and	
Legal Services .....	30	Industry Training .....	169
Organizations .....	33	Warning, Academic .....	60
Records .....	28, 37	Weekend Student Services .....	33
Responsibility .....	30	Withdrawal Policy .....	61
Work-Study Program .....	49	Women's Studies Program .....	143
Summer Attendance Requirement .....	74	Zoology .....	101
Summer Study Abroad Programs .....	23, 118		
Supercomputer .....	111		







# University of Central Florida Campus Map



MAP NO	BUILDING NAME
1	Administration
38-39	Athletics / Tickets
20	Wayne Densch Sports Center
20	Biological Sciences
45	Business Administration
22	Central Receiving / Print Shop
	Area Travel
5	Chemistry
33	Commons
13	Computer Center I
29	Computer Center II
24	Creative School for Children
	Dormitories
30	Brevard Hall
9	Lake Hall
31	Orange Hall
10	Osceola Hall
11	Polk Hall
32	Seminole Hall
8	Volusia Hall
21	Education Complex & Gym
40	Engineering
28	Future (Newspaper)
12	Health / Physics
7	Housing Office
18	Humanities & Fine Arts
2	Library
14	(Howard) Philipps Hall
25	Physical Education Support
16	Physical Plant Complex
#1	Portable Classroom
#2	Portable Classroom
#3	Motion Pictures Division
15	Recreational Services
19	Rehearsal Hall
6	University Theatre
4	Sewage Treatment
7	Student Center
27	Student Health Center
26	Student Services
3	Utility Plant HVAC
7	Veterans' Affairs
23	Visitors Information Center
49	Police Department
50	UCF Arena
51	Art Complex
52	Student Union (Under construction)

**PARKING LOT CODES**

A	Administration
B	Faculty & Prof. Staff
C	Staff
D	Student
H	Handicapped
R	Dorm Residents
23	Visitor Parking

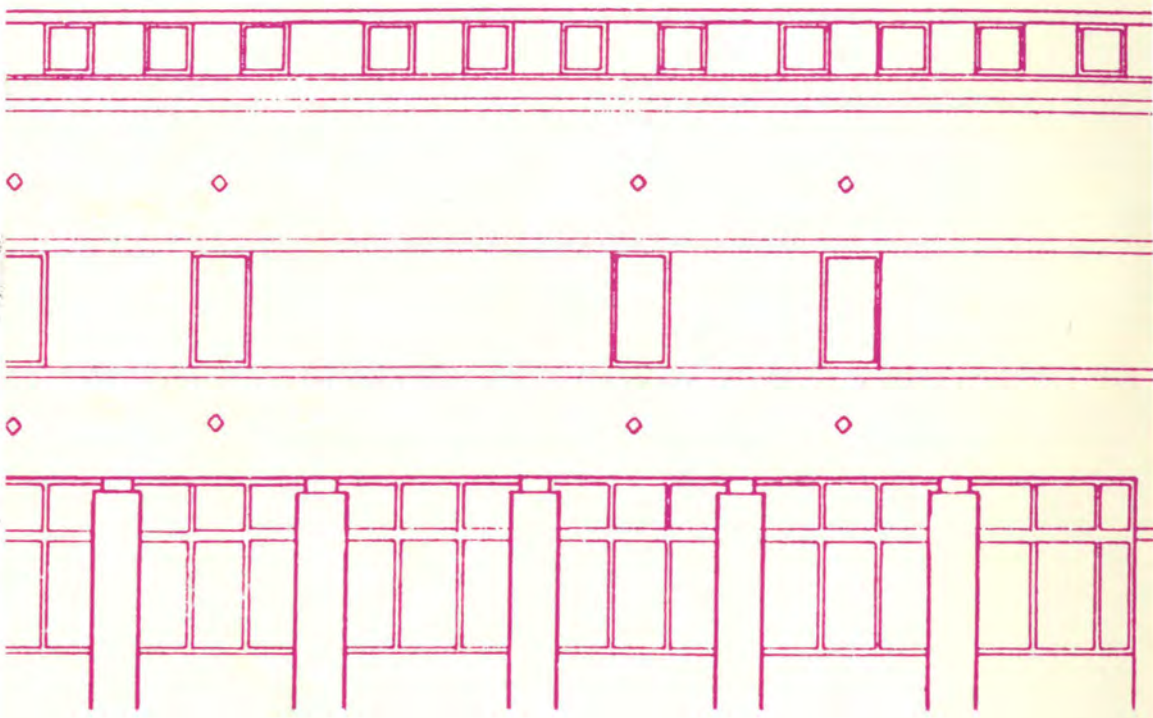
7/91/S

To Research Park



Linda Bonta  
AD 145

non-profit orgn.  
U.S. Postage  
PAID  
permit no. 3575  
ORLANDO, FL



*Colleges of*

Arts and Science  
Business Administration  
Education  
Engineering  
Health and Public Affairs



Member, State University System of Florida