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## Undergraduate Catalog

## [1]

## Bulletin of

# Memphis State University 1985-86 



The Bulletin of Memphis State University is composed of the following publications: Undergraduate Catalog, Graduate School Catalog, The CecilC. Humphreys School of Law/ssue, and The Student Handbook. The Schedule of Classes (Fall, Spring, and Summer) is an official extension of the Bulletin. All of these publications have been designed to provide current and prospective students, faculty, and staff with a comprehensive description of the University and its academic programs, regulations, services, and activities. Recommendations concerning these publications should be addressed to the Coordinator of Academic Programs in the Office of Academic Affairs. A brief description of each publication follows.
The UNDERGRADUATE CATALOG provides the Memphis State University student and prospective students with a detailed description of the curriculum, the requirements for graduation, and the academic regulations. The inside front cover of this publication includes the contract policy pertaining to degree requirements. Also included are admission information and an application form. Because students may graduate using the degree requirements from any valid catalog beginning with the year which they were first admitted to undergraduate study, the issue received upon admission should be retained by the student.
The GRADUATE SCHOOL CATALOG provides current and prospective graduate students with a description of the University, graduate program requirements, and graduate school regulations. Admission requirements, application form, and fees are also included.
The CECIL C. HUMPHREYS SCHOOL OF LAW ISSUE of the Bulletin provides current and prospective law students with a description of the degree requirements, admissions requirements, fees, and activities of the School of Law. An application form is also provided.
The STUDENT HANDBOOK provides new students with a brief description of the areas of Student Educational Services, student activities, campus services, policies and procedures related to Student Educational Services and the Code of Conduct. Each entering student receives a copy of this publication and is responsible for becoming familiar with the Code of Conduct and the policies and procedures.
The SCHEDULE OF CLASSES is published a few weeks prior to each academic term (Fall, Spring, and Summer). It contains a detailed outline of the registration procedure, individual course offerings (course, time, days, location, and instructor), and course or program revisions made since the publication of the most recent Undergraduate Catalog and the Graduate School Catalog. It is an official extension of these catalogs. The academic calendar listing all deadines is included in the catalogs and in the Schedule of Classes.

## Directory for Correspondence

## Inquiries will receive attention if addressed to the administrative offices below at Memphis State University, Memphis, Tennessee 38152.

| Admission | Dean of Admissions and Records |
| :---: | :---: |
| Degree Requirements | Dean of the college in which the degree is offered |
| Entrance Examination | Dean of Admissions and Records |
| Evaluation of Credits | Dean of Admissions and Records |
| Off-Campus Courses | Director of Extended Programs |
| Financial and Business Affair | Director of Finance |
| Graduate Studies | Dean of Graduate Studies |
| Handicapped Student Servi | Director of Handicapped Student Services |
| Housing. | Director of University Housing |
| Pre-Professional Curricula | Dean of the college in which the curriculum is offered |
| Registration | Dean of Admissions and Records |
| Scholarships and Loans | Director of Student Aid |
| Transcripts | Dean of Admissions and Records |
| Veterans Services | Coordinator of Veterans Services |
| President of the University | Dean of Admissions and Records |
| Administration Building (901) 454-2234 | Administration Building (901) 454-2101 |

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## Vol. LXXIV, Number 1 - Undergraduate Catalog

April, 1985
Published four times yearly-April, May, June, July—by Memphis State University.
The validity date for degree requirements is Summer, 1992.
The University reserves the right to cancel or alter any part of this Catalog without notice (subject to the following):

The provisions of this catalog constitute a contract between Memphis State University and a student who commences any program of study insofar as it relates to the degree requirements for that program during the effective period of this catalog, and the degree requirements are subject to change during such period only to the extent required by federal or state laws or accreditation standards. The specific courses or activities constituting the degree requirements for any program are subject to subsititution at any tıme prior to completion by the student.
The remaining provisions of this catalog reflect the general nature of and conditions concerning the educational services of Memphis State University at this tıme, but do not constitute a contract or otherwise binding commitment between Memphis State and the student. Any fees, charges or costs, and all academic regulations set forth in this catalog
are subject to change at any tıme, and all courses, programs and activities described in this catalog are subject to cancellation or ter mination by Memphis State University or the State Board of Regents at any time.
The institution provides the opportunity for students to increase their knowledge by providing programs of instruction in the various disciplines and programs through faculty who, in the opinion of the institution, are trained and qualifed for teaching at the college level. However, the acquisition of knowledge by any student is contingent upon the student's desire to learn and the application of appropriate study techniques to any course or program. As a result, the institution does not warrant or represent that any student who completes a course or program of study will necessarily acquire any specificknowledge or skills or will be able to successfully pass or complete any specific examination for any course, degree, or license. (SBR 2:04:00.01)

## BULLETIN OF

## MEMPHIS STATE UNIVERSITY

The Seventy-fourth session will open
August 30, 1985


Thomas G. Carpenter, Ph.D., President
Cecil C. Humphreys, Ph.D., President Emeritus
UNDERGRADUATE CATALOG

## MEMPHIS, TENNESSEE

Memphis State University offers equal educational opportunity to all persons without regard to race, religion, sex, creed, color, national origin, or handicap. The University does not discriminate on these bases in the recruitment and admission of students, the recruitment and employment of faculty and staff, and the operation of any of its programs and activities, as specified by federal laws and regulations. The designated coordinator for University compliance with Section 504 of the Rehabilitation Act of 1973 is the Vice President for Student Educational Services.

## CAMPUS DIRECTORY

|  | OFFICE |
| :---: | :---: |
|  | Academic Counseling |
|  | Add/Drop Courses |
|  | Admissions |
|  | General Information |
|  | Freshmar, Information |
|  | Transfer Information |
|  | Graduate Admissions Information |
|  | Law School Information |
|  | International Student |
|  | Alumni Affairs |
|  | Ambassadors Board |
|  | Athletics (Intercollegiate) |
|  | Men |
|  | Women |
|  | Calendar of Events |
|  | Activities |
|  | Recreation/Intramural Events |
|  | University Center Events |
|  | Conferences |
|  | Career Counseling |
|  | Center for Student |
|  | Development |
|  | Class Attendance |
|  | Commuter Services |
|  | Computer Services |
|  | Continuing Education |
|  | Counseling |
|  | Academic |
|  | Career |
|  | Personal |
|  | Debate |
|  | DESOTO Office |
|  | Dramatics |
|  | Drop/Add Courses |
|  | Educational Support Program |
|  | Employment/Placement |
|  | Student (on campus) |
|  | Student (off campus) |
|  | University Placement |
|  | Teacher Placement |
|  | Evening Services Dean |
|  | Financial Aid |
|  | Food Services Director |
|  | Fraternity/Sorority Activities |
|  | Grade Appeals |
|  | Graduate Dean |
|  | Handicapped Student Services |
|  | Health Services |
|  | HELMSMAN |
|  | Editorial |


| BUILDING | TELEPHONE $(454-X X X X)$ |
| :---: | :---: |
| Scates Hall 107 | 2062 |
| See your advisor |  |
| Administration 215 | 2101 |
|  | 2000 |
|  | 2390 |
|  | 2111 |
|  | 2911 |
| Law School 201 | 2073/2078 |
| University Center 407 | 2358/2054 |
| Normal 637 | 2701 |
| Normal 637 | 2701 |
|  | 2335 |
|  | 2315 |
| University Center 201D | 2041 |
| Physical Ed. \& Recreation | 2802 |
| University Center | 2041 |
| Richardson Towers 112 | 452-2021 |
| Scates Hall 104 | 2228 |
| Scates Hall 111 | 2067 |
| See your professor |  |
| University Center 416 | 2093 |
| Administration 112 | 2406 |
| Administration 360 | 2991 |
| Scates Hall 111 | 2067 |
| Scates Hall 107 | 2062 |
| Scates Hall 104 | 2228 |
| Scates Hall 111 | 2067 |
| Theatre \& |  |
| Communication Arts | 2600 |
| Meeman Journalism 113 | 2195 |
| Theatre \& |  |
| Communication Arts | 2566 |
| See your advisor |  |
| Winfield Dunn 143 | 2704 |
| Scates Hall 314 | 2303 |
| Sctes Hall 205 | 2016 |
| Scates Hall 315 | 2239 |
| Education 215 | 2728 |
| Administration 167 | 2393 |
| Scates Hall 312 | 2303 |
| Jones Hall | 2740 |
| University Center 416 | 2093 |
| See Catalog \& your professor |  |
| Administration 315 | 2531 |
| Scates Hall 215 | 2880 |
| (Telep | phone or TDD) |
| Health Center | 2287 |
| Meeman Journalism |  |
| 320B | 2192 |


| OFFICE |  |
| :---: | :---: |
|  | Business |
|  | Identification Cards (Replacement) |
|  | Information Center |
|  | Insurance, Student |
|  | International Student Advisor |
|  | Library |
| Lost and Found |  |
| Organizations, Student |  |
|  | MEMPHIS STATE REVIEW |
|  | Photo Services |
|  | Post Office |
| Probation (Academic) |  |
|  | Psychological Services Center |
| Publications Committee |  |
| Religious Activities |  |
| Reservations |  |
|  | Tennis, Racquetball, Handball |
| Residence Life |  |
| Director, Reservations, |  |
|  | Married Apartments |
| Residence Hall |  |
|  | Association |
| Security |  |
| Student Aid |  |
| Student Development |  |
| Student Educational Services |  |
| Student Government Association |  |
| Student Information System |  |
| Student Life, Dean |  |
| Student Records |  |
| Academic |  |
|  | Personnel |
| Telephone Service |  |
| Testing Center |  |
| Theatre Box Office |  |
| Tickets |  |
| General |  |
| Athletics |  |
| Transcripts |  |
| Transfer Student Information |  |
| University Center |  |
| Operations |  |
| Program |  |
|  | Information |
| Vending Refunds |  |
| Withdrawal |  |
| Graduate |  |
| Law |  |
|  | Undergraduate |
| WSMS/FM 92 |  |
|  | Yearbook |


| BUILDING | TELEPHONE (454-XXXX) |
| :---: | :---: |
| Meeman Journalism 318 | 2191 |
| Scates Hall 204 | 2298 |
| 3641 Central Avenue | 2040 |
| Health Center | 2287 |
| University Center 407 | 2054 |
| Brister Library Tower | 2205 |
| University Center Information | 2041 |
| University Center 416 | 2093 |
| Patterson 230 | 2029 |
| Meeman Journalism 329 | 2196 |
| Jones Hall 107A | 2380 |
| Administration 167 | 2393 |
| Psychology 126 | 2147 |
| Administration 303A | 2609 |
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|  | 2801 |
| Richardson Towers 011 | 2295 |
| Robison Hall | 2825 |
| Administration 151 | 2212 |
| Scates Hall 312 | 2303 |
| Scates Hall 216 | 2291 |
| Administration 377 | 2114 |
| University Center | 2051 |
|  | 2037 |
| University Center 419 | 2187 |
| Administration 119 | 2671 |
| Scates Hall 206 | 2299 |
| Jones Hall 103 | 2999 |
| Scates Hall 103 | 2428 |
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| Communication Arts | 2576 |
| University Center 117 | 2043 |
| Athletics Office Building | 2335 |
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| Administration 215 | 2111 |
| University Center 105 | 2031 |
| University Center 414 | 2035 |
| University Center 201D | 2041 |
| University Center 201 | 2041 |
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| 31 |  |  |  |  |  |  |

## 1985-86 UNIVERSITY CALENDAR

The calendar is subject to change at any time prior to or during an academic term due to emergencies or causes beyond the reasonable control of the institution, including severe weather, loss of utility services, or orders by federal or state agencies. (SBR 2:04:00:01)

## FALL SEMESTER 1985

AUGUST 26-29 Off-campus registrations (exact dates, times, and locations to be announced prior to registration)
AUGUST 29: Meeting of the new members of the University faculty. University Center Ballroom, 9:00 A.M.
AUGUST 30: Meeting of the entire University faculty University Center Ballroom, 9:00 A.M., followed by meetings of colleges and departments
SEPTEMBER 2: Holiday: Labor Day
SEPTEMBER 3-5: Registration Week: For detailed dates and times, see the Schedule of C/asses for the Fall Semester, 1985

SEPTEMBER 6: Classes meet as scheduled
SEPTEMBER 12:
Last day for adding courses
Last day for graduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in December, 1985.

OCTOBER 2: Last day for removing Summer Session "Incomplete" grades

OCTOBER 3: Last day for graduate students to submit master's degree candidacy forms and doctoral candidacy forms to the College Directors of Graduate Studies.

## OCTOBER 25:

Last day for all students to withdraw from the University
Last day for all students to drop courses
NOVEMBER 27: Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in May, 1986

NOVEMBER 28-DECEMBER 1: Holidays: Thanksgiving
DECEMBER 2: Last day for submission of comprehensive examination results to the Graduate School.

DECEMBER 6: Last day for submission of theses/dissertations to the Graduate School.

DECEMBER 13: Final examinations begin
DECEMBER 21: Commencement

## SPRING SEMESTER 1986

JANUARY 6-9: Off-campus registrations (exact dates, times, and locations to be announced prior to registration)
JANUARY 13-15: Registration Week: For detailed dates and times, see the Schedule of Classes for the Spring Semester, 1986

## JANUARY 16: Classes meet as scheduled

JANUARY 20: Holiday: Martin Luther King's Birthday.

## JANUARY 23:

Last day for adding courses
Last day for graduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in May, 1986

FEBRUARY 4: Last day for removing Fall Semester "Incomplete" grades

FEBRUARY 12: Last day for graduate students to submit master's degree candidacy and doctoral candidacy forms to College Directors of Graduate Studies.

MARCH 7:
Last day for all students to withdraw from the University Last day for all students to drop courses

MARCH 16-23: Spring Holidays
APRIL 16: Last day for making application to the dean of the appropriate undergraduate college for degree to be conferred in August, 1986

APRIL 21: Last day for submission of comprehensive examination results to the Graduate School.

APRIL 25: Last day for submission of theses/dissertations to the Graduate School.
MAY 2: Final examinations begin
MAY 10: Commencement

Dead Week. Definition: The four day period preceding final examinations. No student social or athletic functions shall be scheduled during Dead Week.

Final Examination Period. No examination shall be given at a time other than the scheduled time except with written permission from the department chairman and the college dean. No social or athletic functions shall be scheduled during the Final Examination Period.

Intercollegiate athletics are excepted from the above policies.

## FIRST SUMMER TERM 1986

JUNE 3-4: Registration - For detailed dates and times, see the Schedule of Classes for the Summer Session, 1986

JUNE 5: Classes meet as scheduled
JUNE 6:
Lest day for adding First Term courses
Lest dey for graduete students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in August, 1986

JUNE 9: Last day for graduete students to submit master's degree cendidacy forms and doctoral candidacy forms to College Directors of Graduate Studies

## JUNE 20:

Last day for all students to withdraw from the University (Firs Surnmer Term)
Last day for all students to drop courses (First Summer Term)
JUNE 24: Last day for removing Spring Semester Incomplete" grades

JULY 4: Holiday: Independence Day
JULY 9: Final examinations

## SECOND SUMMER TERM 1986

JULY 14: Course adjustment day and registration for the Second Summer Term

JULY 15: Classes meet es scheduled
JULY 16: Last day to add or to register for Second Term courses

JULY 30:
Last day for meking application to the dean of the appropriate undergraduate college for degrees to be conferred December, 1986
Last day for all students to withdraw from the University (Second Summer Term)

Last day for all students to drop courses (Second Summer Term)

AUGUST 1:
Last day for submission of theses/dissertations to the Graduate School.
Last day for submission of comprehensive examination results to the Graduate School.

AUG UST 15: Final examinations
AUGUST 17: Commencement

## EXTENDED SUMMER TERM 1986

JUNE 3-4: Registration: For detailed dates end times, see the Schedule of Classes for the Summer Session
JUNE 5: Classes meet as scheduled
JUNE 6:
Last day for adding or registering for Extended Term courses Last day for greduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in August, 1986
JUNE 9: Last day for graduate students to submit master's degree candidacy and doctoral candidacy forms to the College Directors of Graduate Studies
JUNE 24: Last day for removing Spring Semester "Incomplete" grades
JULY 4: Holiday: Independence Day
JULY 9:
Last day for all students to withdraw from the University (Extended Summer Term)
Last day for all students to drop courses (Extended Summer Term)
JULY 11-14-15: Mid-Term 8reak
JULY 30: Last day for making application to the dean of the appropriate undergraduate college for degree to be conferred in December, 1986
AUGUST 1:
Last day for submission of theses/dissertations to the Graduate School.
Last day for submission of comprehensive examination results to the Graduate School.
AUGUST 15: Final examinations
AUGUST 17: Commencement

## USING THE CATALOG FOR DEGREE PROGRAM PLANNING

Each student is responsible for fulfilling all of the requirements for the degree program being pursued and for following the procedures and regulations as stated in the Catalog in effect when entering college. This Catalog is valid for seven years. Students should keep a copy of the Catalog they enter under until they graduate. Assistance from an advisor is helpful in planning the program of studies and in selecting the specific courses to be taken for each semester.
The Graduation from the University section of the Catalog outlines the minimum university level degree requirements. In addition to these, the student must fulfill the college level requirements for the degree and the major requirements. If the admission and/or retention standards for a particular college or department differ from the university requirements, they will be listed in the college degree program description. If they do not, the university requirements apply. The guidelines below will be helpful in planning which program to follow.
(1) read the Catalog to investigate what options are available;
(2) consult with an academic adivsor in the Academic Counseling Unit and/or the colleges which offer majors which are of interest to you;
(3) talk with the departmental faculty in these areas of interest;
(4) take advantage of the counseling offerings of the Center for Student Development (Testing, Career Counseling, Academic Counseling, Personal/Psychological Counseling, and the Educational Support Program);
(5) become familiar with the Academic Regulations section of the Catalog; determine the grades which are needed to
insure retention and graduation as well as honors classifications in the university and in individual programs;
(6) if you are undecided about a major area, begin your program of studies with those courses required for all degrees.
After a major has been chosen:
(1) consult with your advisor to determine what procedures are necessary to declare a major;
(2) read the entire section of the Catalog which relates to the degree and major selected: note all degree requirements listed for the college such as the number of hours required within the college and outside the college and the number of upper division hours required; list all the general education courses required for the college or obtain a degree sheet from the college advisor; note the major requirements (when choices are allowed, be sure to consult with your major advisor);
(3) plan your coursework semester by semester; try to complete all of your lower division courses (1000-2000) during your first two years (the four semesters of English required of all students are to be completed during the first four semesters); be sure to check for prerequisites before enrolling in any course, especially upper division courses; take the courses in the proper sequence.
To complete a 132 semester hour degree program in four years, you need to take 33 hours per year. The maximum allowed per semester (fall/spring) is 18 hours. Special permission must be received in order to carry more than 18 hours. Physical education activity courses are not included in the 18 -hour maximum.

## GENERAL DESCRIPTION

## Goals of the University

The primary purpose of a university is to advance learning. Memphis State University is dedicated first to the traditional ideals of learning by focusing its attention and efforts upon the creation, transmission, and application of knowledge. Moreover, it is committed to goals that are utilitarian in (1) preparing students to serve in a variety of professions and occupations, and in (2) providing services to society for improving the quality of life and environment. Through instruction, research, and public service, the University proffers a diversity of learning opportunities for the pursuit of knowledge and truth in an atmosphere of free inquiry and open discussion. The University provides a collegiate atmosphere that is broad and culturally enriching in which students may strive toward intellectual competence, maturity, and self development. Memphis State University is committed to education of a non-racially identifiable student body.

Memphis State University is dedicated to these purposes:

1. To provide opportunities for its students to experience an education which is both liberal and specialized in character.
2. To prepare its students to serve in a variety of professions and occupations upon which society depends.
3. To produce graduates whose accomplishments attest to their intellectual discipline, curiosity, maturity, and professional competence.
4. To encourage in scholarly research and creative effort designed to advance the frontiers of knowledge and to enrich the cultural dimensions of society.
5. To provide services which bring knowledge to focus on societal problems, with particular emphasis on urban needs, for the purpose of improving the quality of life and environment.

## History

The roots of Memphis State date back to September 15, 1912, with the establishment and opening of the West Tennessee State Normal School, which provided for the training of primary and secondary education teachers. However, the seeds for the normal school's creation were sown three years earlier, in 1909, when the Tennessee General Assembly passed a General Education law calling for the establishment and maintenance of three normal schools, one school located in each of the three grand divisions of the State.

The eastern edge of Memphis became the site for the West Tennessee State Normal School, which in 1925 became the West Tennessee State Teachers College. In 1941, the College's curriculum in liberal arts was expanded, and the name was changed to Memphis State College, an institution serving three to four thousand students. The undergraduate program was reorganized into three schools and a graduate school added in 1951.

On July 1, 1957, Memphis State achieved its status as a university, and has since expanded its degree programs to serve a student population of over 20,000.

## Governing Body

The governance and control of Memphis State University is vested in the State Board of Regents. The Board of Regents consists of eighteen members including thirteen appointed by the Governor; four ex officio members - the Governor, Commissioner of Education, Commissioner of Agriculture, and the Executive Director of the Tennessee Higher Education Commission - and the immediate past Commissioner of Education. Nine appointed members are from each congressional district and three are approved at-large from different geographical areas of the state. A student regent is appointed from among the system institutions for a one-year term.

## Organization

The schools and colleges which comprise the University are The Graduate School, The Cecil C. Humphreys School of Law, The University College (undergraduate only), The School of Nursing, and five colleges offering graduate and undergraduate programs: The College of Arts and Sciences, The Fogelman College of Business and Economics, The College of Communication and Fine Arts, The College of Education, and The Herff College of Engineering. In addition, there is one independent graduate department, Audiology and Speech Pathology. At the undergraduate level, independent departments are: Aerospace Studies (Air Force ROTC), International Studies, Military Science (Army ROTC), Naval Science (Navy ROTC), and Urban Studies. The University also offers a University Honors Program for highly motivated students seeking exceptional and challenging programs of study in a variety of disciplines or at the university level. The colleges, departments, and the undergraduate degree programs which they offer are described in more detail in the Academic Programs section of this catalog.

## THE MEMPHIS COMMUNITY

Memphis, with a population of over 800,000 , is one of the South's largest and most attractive cities. As a primary medical, educational, communication, and transportation center, Memphis offers a rich and full range of research opportunities and cultural experiences. The city, known worldwide for its musical heritage, has many fine restaurants, museums, and theaters, as well as one of the nation's largest urban park systems. Annual events include the Liberty Bowl game, Memphis in May festival, Danny Thomas Memphis Classic golf tournament, Great River Carnival, and Mid-South Fair. The medical complex in Memphis is the South's largest and one of the nation's foremost centers of medical research. A public transportation system provides easy travel between the University and other parts of the city.

The University's modern and beautifully landscaped campus is centrally located in an attractive residential area of Memphis, with shopping, recreation, and entertainment centers nearby. In addition to the facilities on the Main Campus, the University has research and athletic-training facilities and married students' housing on the South Campus.

Built on a bluff which soars over the mighty Mississippi, Memphis is devoted to preserving its own history even while it vigorously builds its own future. Clusters of stately old homes dot the city; some are still inhabited, some preserve the past as museums, some have been restored and recast into commercial establishments; all are home to images from a long-ago time.

## ACADEMIC PROGRAM ACCREDITATION

The University is fully accredited by the Southern Association of Colleges and Schools. The various colleges, schools and departments and/or the curricula are accredited by the following accrediting agencies:
Accrediting Council on Education in Journalism and Mass Communication American Assembly of Collegiate Schools of Business
American Bar Association
American Chemical Society
American Dietetics Association

American Planning Association
American Psychological Association
American Speech, Language and Hearing Association
Council on Rehabilitation Education
Council on Social Work Education
Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology
National Association of Schools of Art and Design
National Association of Schools of Music National Council for Accreditation of Teacher Education
National League for Nursing
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology

## FACILITIES, RESEARCH, AND SERVICES

## Library Facilities

The libraries of Memphis State University include the John Willard Brister Library and specialized collections in the Department of Chemistry, the Department of Mathematical Sciences, the Department of Music, the Herff College of Engineering, the Cecil C. Humphreys School of Law, the Speech and Hearing Center, and the Bureau of Business and Economic Research. The total collection numbers more than 900,000 bound volumes and some $1,890,000$ pieces of micromaterial.

The Brister Library contains a reference and bibliography section, an interlibrary loan service, a map collection, the Mississippi Valley Collection (reflecting the history and culture of that region); it is also a depository for United States government documents, and Tennessee State documents. Private study carrels are available to faculty members and graduate students engaged in research.

Memphis State University has agreements with Rhodes College, the University of Tennessee Center for Health Sciences, Le-Moyne Owen College, and Christian Brothers College for shared use of their library collections by the students, faculty, and staff of these institutions.

## Computer Facilities

Computing support for the instructional program of the University and for faculty research is provided by Computer Services. The central computing system is a Sperry-Univac 1100/62 which has over 8 million characters of main storage and which supports both time-sharing and local batch job entry. Remote high speed line printers are located in the Herff College of Engineering, the Fogelman College of Business and Economics, the Administration Building, and the Winfield Dunn Building. The center is located in room 112, Administration Building.

More than 100 interactive terminals are provided by various academic departments for use in instructional and research programs. In addition to these terminals, there are special purpose minicomputers available in individual departments such as Chemistry, Electrical Engineering, Civil Engineering, and Technology. There are more than 250 microcomputers which are also available in many departments of the University.

## Bureau of Business and Economic Research

The Bureau of Business and Economic Research is the organized research and public service unit of the Fogelman College of Business and Economics. The programs of the Bureau include public service to government agencies (state and local) and the business community, continuing education, and applied general research.

## Bureau of Educational Research and Services

The Bureau of Educational Research and Services conducts, promotes, and supports research, development, evaluation, and field services in the College of Education. Bureau personnel are active in the operation of projects for local, state, regional, and national education agencies. Services are provided to faculty members through staff development, funding source identification, proposal preparation assistance, and contract administration support.

## Cartographic Services Laboratory

The Cartographic Services Laboratory provides assistance to the University community and the Mid-South in the production of maps, graphs, slides, including computer graphics, and other related materials designed for use in presentations, articles, reports, theses, dissertations, books, and exhibits. The Cartographic Services Laboratory is located in the Department of Geography and Planning.

## Center for Electron Microscopy

The Center for Electron Microscopy provides facilities and expertise in the field of electron microscopy. Users of the Center include researchers and graudate students in the biological and physical sciences.

## Center for Manpower Studies

The Center for Manpower Studies, located in the Fogelman College of Business and Economics, conducts research on employment and training-related topics, provides technical assistance to federal, state, and local agencies. It also offers a variety of training programs for human resource development agencies thoughout the southeast.

## Center for the Study of Higher Education

The Center for the Study of Higher Education, located in the College of Education, conducts research and sponsors workshops and conferences in higher education.

## Chucalissa Indian Village and Museum (C. H. Nash Museum)

This prehistoric Indian village and the museum are operated by the Department of Anthropology as an educational and research facility. The indoor and outdoor exhibits are designed to reconstruct prehistoric Indian life in the mid-South. Students are trained in the techniques of excavation, restoration and museum operations. The courses taught are listed in the Department of Anthropology offerings. Chucalissa is located 17 miles from the main campus.

## Health, Physical Education and Recreation Complex

The H.P.E.R. Complex consists of the Physical Education Building (PEB) and the Field House (FH). These buildings and outdoor facilities include: 21 PEB and 10 FH tennis courts; one PEB and two FH sports field areas with 4 softball diamonds, 6 shuffleboard courts, all-weather track and space for soccer, a basketball court, football, volleyball and frisbee golf course; 9 air-conditioned PEB and 6 FH racquet-ball-handball courts; indoor and outdoor swimming pools with diving wells; PEB weight room, combative rooms, men's steam room and separate men's and women's saunas; and FH free bar weight room, dance studio, gymnastic room and archery range.

## Institute for Engineering Research

The Institute for Engineering Research, located in the Herff College of Engineering, conducts research in various fields of engineering for public agenices and industry. Because Memphis State University is a major urban university, the Institute is actively involved in research related to the problems of emerging urban areas.

## Institute of Governmental Studies and Research

The Institute of Governmental Studies and Research is a research and service agency operating in close coordination with the academic program of the University. It provides research, consulting, and training assistance to government agencies at the local, state, national, and international levels. The focus of the Institute is upon interdisciplinary public policy and the application of academic knowledge to the practical problems confronting government decision-makers.

## Regional Economic Development Center

The Center represents the University in its outreach function in the field of economic development planning. In providing technical and management assistance to the public and private sectors, the Center also serves as a laboratory for interdisciplinary research and service by faculty and graduate students in solving problems of urban and regional development. The Center's professional planning staff have academic appointments and teach courses in urban and regional planning.

## Speech and Hearing Center

Located at 807 Jefferson Avenue in the medical center of Memphis, this facility became affiliated with the University in 1967. It serves children and adults with communication disorders. The University administers and operates the Center in cooperation with the Board of Directors of the Memphis Speech and Hearing Center, Inc.

## Tennessee Earthquake Information Center

The Tennessee Earthquake Information Center was established in 1977 by the Tennessee State Legislature to provide the citizens of Tennessee, governmental agencies, and the news media such services as the following: (1) accurate, immediate reports and background information on the occurrence of regional earthquakes; (2) scientific research related to the causes and consequences of local earthquakes and to the possibility of earthquake prediction; (3) studies related to the desirability of earthquake resistant construction; (4) advice to the populace, business, government, and insurance groups on methods, means, and the feasibility of reducing earthquake damage. It operates as a research organization of Memphis State University.

In addition to separately-budgeted units, Memphis State University also recognizes a wide array of other research-oriented units:

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## Recognized Centers of Excellence

Memphis State University has been designated by the Tennessee Higher Education Commission as the location for centers of excellence in the areas listed below. These units receive special funding by the State in recognition of their status.

Center for Applied Psychological Research
Center for Research and Innovative Services for the Communicatively Impaired
School of Accountancy
Tennessee Earthquake Information Center

## Center for Instructional Service and Research

The primary mission of the Center for Instructional Service and Research is to provide a series of instructional support, development, and evaluation services to the University community. The services are provided by three primary divisions of the Center: Instructional Design and Development Division, Evaluation Services Division, and Learning Media Center.

Instructional Design and Development Division provides a variety of services and programs which include consultation in designing instructional materials and methodologies using educational technology, such as microcomputer, television and conventional audio-video. Graphic design and production services are also provided through the production of slides, transparencies, and other graphic material required for instructional purposes.

Evaluation Services Division operates the student rating of the instructional program and offers consultation services to faculty on techniques and procedures for evaluating student achievement and interpreting the results of the student evaluation of instruction.

Learning Media Center Division offers a full range of services including instructional media previewing, audio tape duplication, and audio-visual equipment available for student use, such as audio and video cassette decks; 16 mm , slide and filmstrip projectors; and microcomputers. The LMC also operates the University's audio-visual software library, maintains the associated equipment, and manages the Laboratory for Individualized Learning, a service and facility that enables faculty to place self-instructional modules in a centralized location for student use.

The Center also offers the Professional Enrichment Seminar series which provides instructors the opportunity to enhance their teaching skills and become familiar with the applications of the current technologies in the classroom.

The Center is located in the John W. Brister Library Building.

## Evening Academic Services

The Evening Academic Services office provides the full range of academic
services to evening and Saturday students normally available to regular day students. The services include career, vocational, personal, and change of major counseling; registration assistance; transcript request and evaluations; course drop and add requests; financial aid, health service, and other referrals; admissions and readmissions counseling; orientation information; traffic and parking fees, decals and tickets; notary public services.

## Psychological Services Center

The Psychological Services Center is located on the first floor of the Psychology Building. It offers both psychological evaluations and therapeutic services to children and adults. For appointments or information, contact the Center.

## Memphis State University Press

The Memphis State University Press promotes the development and publication of scholarly books and works of interest to the general reader. The Press welcomes works of regional interest on Tennessee and the Mid-South. In emphasizing scholarly works, the Press gives preference to those of wide appeal to the academic community.

## Advancement and Continuing Education

The Division of Advancement and Continuing Education has overall responsibility for the coordination and development of University outreach activities and continuing education programs. The services offered through this division are designed to increase the availability of University faculty and facilities to the general public. All gifts to the University are coordinated through this division. For more information about the range of services, contact the Advancement and Continuing Education Office.

## Alumni

The Memphis State University National Alumni Association has offices located in the Alumni Center on campus. The staff serves the Memphis State University National Alumni Association and provides a communication linkage to the University for graduates and former students. The Alumni Association and staff also offer special services for current students and serve as the sponsors for the University's Student Ambassador Board.

## Development

The Office of Development serves as the catalyst and coordinator for private financial support of Memphis State University's academic programs. With approximately 50 percent of the University's annual operating budget provided by the State of Tennessee, other income must be generated by student tuition, other fees, and through annual and
endowed gifts from private and corporate segments of the community. Such income is used to initiate new academic programs and enrich existing ones.

## Public Service

In recognition of the University's responsibility to serve the needs of a changing social and economic order, the Office of Public Service serves as a prime contact for individuals and organizations outside the University. Through this office, access may be gained to University facilities and resources.

## Tennessee Small Business Development Center

The Tennessee Small Business Development Center is organized to provide business development services to new and existing small business firms throughout the State of Tennessee. These services are delivered through nine regional and affiliate centers located at other state universities, community colleges and technical institutes. These services add to the economic development efforts of the local communities by adding and retaining employment. Special attention is given to minority and veteran owned businesses.

## Short Courses

Short Course Instruction develops special interest, non-credit short courses for individuals who do not wish to engage in the formalities of University admission, grading and examinations. These courses appeal to the general public and embrace a variety of topics focusing on personal enrichment and professional development. Upon request, Short Course staff can also develop and arrange for the presentation of courses designed for specific business or organizational groups. A catalog of non-credit courses is available prior to each semester's offerings.

Participants in short courses and other approved programs sponsored by the Office of Advancement and Continuing Education may earn Continuing Education Units (CEUs) for satisfactory completion of course work. CEUs do not constitute academic credit earned at Memphis State University. Their use is part of a nationwide movement to provide recognition for, and records of, participation in noncredit continuing education activities through the awarding of a standard unit of measurement. Continuing Education Units earned at Memphis State University are recorded on a permanent transcript.

## Conferences and Seminars

Conferences and Seminars provides CEU and non-credit programs in various
professional, technical, and general education fields. It assists state agencies, educational institutions, recognized civic organizations, professional groups, individuals, and departments of the University in developing and presenting educational programs for adults. Those who wish to avail themselves of the services of Conferences and Seminars, either on or off the main campus, are encouraged to contact the Conferences and Seminars Office.

## International Training Program

The International Training Program develops educational and training programs to meet the needs of internationals in Memphis, the surrounding area and from abroad. Language instruction in all areas is provided for non-English speakers by its Intensive English for Internationals Program, which offers classes at beginning, intermediate and advanced levels. The program runs on a semester basis coinciding with the University's academic calendar, with an 8 -week summer session. Classes designed to meet special needs can also be arranged outside of those regularly scheduled.

## Executive Training Center

Opening in the Fall of 1986, the Executive Training Center will be a state-of-theart conference and training facility designed to meet the needs of executives, managers, and professionals in all organizational areas. The Center will have hotel rooms, conference/seminar rooms, dining facilities, and staff resources.
The staff of the Executive Training Center will work closely with the Conferences and Seminars staff in developing training opportunities for executives, managers, and professionals. Programs will be developed both for public audiences and individual organizations.

## THE GRADUATE SCHOOL

The Graduate School of Memphis State University is the center of advanced study and research within the University. The basic objectives of the Graduate School are:

1. to preserve and disseminate knowledge;
2. to extend knowledge through research; and
3. to prepare men and women to assume responsible and useful roles in a changing society.

The Doctor of Philosophy degree is awarded in audiology and speech pathol-
ogy, biology, chemistry, history, mathematics, music, psychology, and counseling psychology. The degrees of Doctor of Education, Doctor of Musical Arts, and Doctor of Business Administration are awarded by the College of Education, the College of Communication and Fine Arts, and the Fogelman College of Business and Economics, respectively. The College of Education also offers the degree of Education Specialist in several of its departments. The Cecil C. Humphreys School of Law offers the Juris Doctor degree.

Master's degrees are offered in fiftyfour major areas through five colleges and one independent department. The degrees include Master of Science, Master of Arts, Master of Fine Arts, Master of Arts in Teaching, Master of Education, Master of Business Administration, Master of Professional Accountancy, Master of Music, Master of City and Regional Planning, and Master of Public Administration.

For students with specific and valid educational goals that cannot be satisfied by existing programs, an individual studies major leading to an M.S. or M.A. is coordinated by the Graduate School.

## CECIL C. HUMPHREYS SCHOOL OF LAW

PROGRAM: The Cecil C. Humphreys School of Law offers a program of instruction leading to the degree of Juris Doctor. A student may enroll in a full-time program and attend classes during the day, or in a part-time program, which is open for admission every other year, and attend classes in the evening. A student regularly employed more than 15 hours per week may not pursue the full-time program.

The successful completion of 90 semester hours of work, including all required courses, with the prescribed grade average is necessary for graduation. The last 28 semester hours must be taken in this school.

ADMISSION: Admission to the Cecil C. Humphreys School of Law is is on selective basis. To be eligible for admission, a student must have received a bachelor's degree from an accredited college or university and must have made a satisfactory score on the Law School Admisssion Test administered by the Law School Admissions Services, Box 2000, Newtown, PA 18940. Questions concerning additional admissions requirements should be directed to the Director of Law Admissions and Student Recruitment.

The regulations and policies of the School of Law are set out in greater detail in a separate issue of the Law School Catalog. Additional information may be obtained from the Director of Law Admissions and Student Recruitment, Room 201, Law Building.

## 2. ADMISSION REQUIREMENTS

## ADMISSION TO THE UNIVERSITY

Memphis State University offers equal educational opportunity to all persons without regard to race, religion, sex, creed, color, national origin, or handicap. Inquiries about admission to any college of the University should be addressed to the Office of Admissions. This office receives and processes all applications, evaluates credentials, and issues notices of acceptance to qualified students. Undergraduate students may enter at the beginning of either the regular semesters or at the beginning of any term of the summer session.

All applications must be accompanied by a five-dollar ( $\$ 5.00$ ) non-refundable application fee. This fee is payable one time only for undergraduate and graduate level applicants. Law applicants, however, must pay a separate fee.

Certain instructional programs of the University are subject to special admission requirements and are subject to change according to the availability of institutional resources. Students wishing to enter one of these programs of study should check with the appropriate department or division offering the program in order to become familiar with these special requirements. Undergraduate programs with special admission requirements include professional degrees in art, music, or theatre (Bachelor of Fine Arts or Bachelor of Music), teacher education, educational services, nursing, and the University College.

Applicants are advised to have all credentials on file well in advance (preferably thirty days) of the registration period for the term for which their application is made. All credentials become the property of the University and cannot be forwarded or returned.

Credentials will be maintained in active files for a 12 month period. After this period, credentials will be relegated to inactive status and must be submitted again before an admission decision can be made.

Regulations in this section are subject to change without notice.

## ADMISSION AS REGULAR UNDERGRADUATES

## Freshmen Applicants

The deadlines for submitting applications for admission are: August 1 for the fall semester; December 1 for the spring
semester, and May 1 for the summer session. Applications received after these deadlines may be delayed in processing.

An applicant who has no previous college enrollment may qualify for admission as a regular undergraduate freshman by meeting the following requirements:

1. HIGH SCHOOL GRADUATION
A. By submitting a transcript of credits showing graduation from a state approved or regionally accredited high school. Graduates of an unapproved or non-accredited high school must take the General Educational Development (G.E.D.) test and earn an average stendard score of at least 45. This G.E.D. requirement is waived for students who earn the minimum A.C.T. required for guaranteed admission. Students who do not present one unit of American History are required to register for the course during their first or second year at the University. Students who do not present two units of appropriate high school mathematics courses i.e. two years of algebra or one year of algebra and one year of geometry, are required to successtully complete MATH 1100 prior to enrolling in a mathematics course which is applicable toward a degree.
NOTE: Graduation means completion of a course of study which results in the award of a diploma, not a certificate of attendance or completion. If a proficiency or competency examination is required to award such diploma, a notation of satisfactory performance must be included on the transcript.

OR
B. By General Educational Development Test (G.E.D.). Applicants 18 years of age or older who are not high school graduates may satisfy the graduation requireTesting may be arranged by contacting the local Board of Education.
2. ENTRANCE EXAMINATIONS

Applicants must submit acceptable scores earned on the test administered by the American College Testing Program (A.C.T.). These scores may be furnished by your high school or directly from the testing agency (A merican College Testing Program, P.O. Box 414, lowa City, Iowa, 52243 ). Applicants who are 21 years of age or older or were a member of a high school class which graduated at east three years prior to the intended term of entry, may submit a statement of educational goals in lieu of an entrance examination score. Students are urged to visit or telephone the Office of Admissions for additional information or clarification of test score requirements. Special testing arrangements may be made for handicapped per sons by contacting the Director of Handicapped Student Services.
NOTE: In cases involving the availability of the A.C.T. or the timeliness of a test administration, the S.A.T. may be considered.
3. ADMISSION DECISION

Acceptance to the University for in-state applicants, may be granted as follows:
A. Gueranteed Admission

Minimum A.C.T. composite score of 18 OR a 3.0 cumulative grade point average on a 4.0 scale from an accredited or approved high school.
B. Reviewed by Committee

Applicants with an A.C.T. composite score of 16 or 17 OR at least a 2.0 cumulative high school grade point average on a 4.0 scale may be considered for admission by committee. Applicants who fall into this category should also submit the following
(1) Personal Statement: a letter written by the applicant to the committee including the following - (a) an outline of activities in high school and extra curricular activities (employment, etc.), (b) personal interests, and (c) reasons the applicent wants to attend college and specifically Memphis State University
(2) Recommendations from at least one of the following: counselor, principal, or teacher. In the absence of special talents or circumstences, applicants who do not meet the requirements in $A$ or $B$ above will e rejected (see section C below).
NOTE: Applicents who are offered edmission with ACT composite scores less than 16 will be required to take a placement examination prior to enrollment. Based on the results of this assessment, these epplicants may be required to successfully complete remedial and/or developmental courses prior to enrolling in degree credit courses.
C. Special Telents or Circumstances

Applicents with special talents or circumstences who do not meet requirements for guaranteed admission or for committee review mey be considered. For further informetion contect the Office of Admissions. Applicants with diegnosed Learning Disabilities should contact the Director of Handicapped Student Services for further information.
4. OUT-OF-STATE APPLICANTS

Acceptance to the University for out-of-state applicants who meet guaranteed admission standards may be granted on the same basis as for in-state applicants. Acceptance for all other out-of-state applicants is competitive.

## Transfer Applicants

The deadlines for submitting applications for admission are: August 1 for the fall semester; December 1 for the spring semester; and May 1 for the summer session. Applicants who apply after these deadlines will be processed in one of the special categories listed in the next section.

An applicant who has registered at any accredited college or university must apply as a regular undergraduate transfer student or in the appropriate special category. In order to qualify for regular transfer admission, the applicant must request that a transcript from each institution attended be sent directly to the Office of Admissions. Concealment of previous college or university attendance may be cause for rejection or cancellation of admission.

Admission may be granted to applicants who have honorable dismissal from the last institution attended and whose cumulative quality point average (Q.P.A.) meets the required minimum established by the Tennessee State Board of Regents, as stated below:

| Semester Hours Attempted |  | Minimum QPA |
| :---: | :---: | :---: |
|  |  |  |
| 14.99 or less |  | No minimum** |
| $15.00-29.99$ |  | 1.40 |
| $30.00-50.99$ |  | 1.70 |
| $51.00-67.99$ |  | 1.90 |
| 68.00 and above |  | 2.00 |

*Transfer applicants with fewer than 15.00 semester hours attempted must meet the admission requirements for Freshman Applicants.

Transfer applicants who have been academically dismissed from the last institution which they attended, or do not meet the Q.P.A. requirements listed above, will not be considered for admission until at least one regular semester (not to include summer sessions) has elapsed. After this period, these applicants must provide the following:
A. a new application, (no additional fee required)
B. an acceptable A.C.T. or S.A.T. score NOTE: Applicants who are 21 years of age or older or were a member of a high school class which graduated at least three years prior to the intended term of entry, may submit a statement of educational goals in lieu of an entrance examination score.

If acceptance to the University is granted, the applicant will be admitted on academic probation.

Transfer applicants who are denied admission should contact the transfer
affairs section of the Office of Admissions to discuss the possibilities of attending the university in the future.

## International Students

Memphis State University believes that the presence of a balanced representation of international students on campus will enrich the educational environment of all students. Based on this, the University is authorized under federal law to enroll non-immigrant, alien students on " $F-1$ " student visas. Applicants must file complete credentials before May 1 for fall admission; September 15 for spring admission; or February 1 for summer admission. Complete credentials include all the documents listed below under requirements.

The application should be completed carefully and returned to the Office of Admissions, Memphis State University, Memphis, Tennessee, 38152, U.S.A. Applications and fees received after the stated deadlines will be returned.

A non-refundable application and processing fee of $\$ 30.00$ (thirty dollars) is required of every international applicant, unless previously paid. A check or money order, made payable to Memphis State University, must be sent with the application form. Applications received without the fee will be returned.

International applicants should write to the Office of Admissions for information on application procedures, qualifications, and admission to the University. Since there is considerable variation among educational systems throughout the world, international applicants will be selected on a competitive basis, after meeting the minimum standards of admission using examination scores, grade point average, relevance of academic background to intended major field of study and recommendations from the World Survey of Education. The University often receives more applications than can be approved; therefore, admission cannot be granted to all applicants who meet only the minimum requirements.

Since the enrollment of international students is based on a global sampling and representation, priority will be given to applicants with exceptional credentials who will be attending a university in the United States for the first time.

All transcripts, test scores, and other credentials must be accompanied by an official English translation of these documents and must be on file in the Office of Admissions by the stated deadlines prior to the beginning of registration for the intended term of entry.

## REQUIREMENTS

1. Educational Beckground: List on the form provided by the University every school attended, beginning with primary school, to the present, including each primary, secondary, and post secondery institution
2. Required Trenscripts: The applicant must arrange for the Office of Admissions to receive official copies of academic records from the applicant's attendance at secondary school, college, university, and professional institutions of learning. These trenscripts must be sent directly from the high school or college to Memphis State University.
An exception is made for those who hold the bachelor's
degree or its equivalent in that they need not send their secondary school records. Records should list the subjects studied and the grade, mark, or other evidence that each Individual subject was completed to the satisfaction of the authorities in charge. If it is impossible for the school to send us an official copy, certified copies by an official at the American Embassy or a known world organization may be acceptable. All records must be in English. Since certificates and records filed for examination are not ordinarily returned, the applicant should send certified photostatic copies if the documents in question cannot be easily replaced
3. Required Test of All Applicants: All applicants whose native language is not English must supply results of the Test of English as a Foreign Language (TOEFL) or its equivalent. TOEFL information may be obtained by writing, TOEFL, Educational Testing Service, Princeton, New Jersey, OB540, U.A. All test socres must be sen directly from the testing agency to Memphis State University.
4. Freshman Test Required Applicants to the first year undergraduate level must submit scores on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT). These tests are available only in English. For information on the SAT, write to College Entrance Examination Board. Box 592, Princeton, New Jersey, 0B540, U.S.A. For information on the ACT, write to American 52243 U A All test scores must b, sent City, lowa, 52243, Sin All directly from the testing agency to Memphis State University.
. Financial Statement. U.S. visa regulations require that certification of admission be based on both academic acceptance and satisfactory evidence of adequate funds to meet the expenses involved in the student's program of study. An applicant on an "F-1" student visa must supply. On the form provided by the University, sufficient evidence of financial support for the applicant and all members of his/her amily who will accompany the applicant to Memphis. This requires that the applicant certify that his/her intent is to attend the University full-time and that no employment will be required.
Send two recenissions size phot State University Office of Admissions, 152 U S A Memphis. Tennessee, 3B152, U.S.A
. Health Certificate Required Each international student, within 30 days from the first day of classes, must submit a certificate from a licensed U.S. physician or other qualified U.S. medical authority verifying freedom from tuberculosis. Failure to do so shall result in denial of enrollment. In the event that the student either has tuberculosis or has potential tuberculosis requiring medical treatment, continued enrollment will be conditioned upon the determination by a licensed U.S physician that such enrollment does notpresentarisk to
others and upon the student's compliance with any others and upon the student's comp
prescribed medical treatment program
prescribed medical treatment program. ance before they are allowed to enroll.
5. English Placement Examination. All international applicants who are accepted must take an English placement examination, administered by the English Department, prior to enrollment. Placement in an English class will be determined by the results of this examination. International students should arrange to be beximately one week prior to registration for approximately one we
proposed term of entry.

$$
11
$$ International students will not normally be allowed to register as transient students (those regularly enrolled andend Memphis State for only a limited period of timel attend Memphis State for only a limited period of time), During summer sessions, exceptions may be granted only in cases where a student has an outstanding academic record and unusual circumstances are present. International students who wish to apply for readmission The international student must become familiar with the regulations of the Immigration and Naturalization Service regulations of the lmmigrationd Naturalizanon Service ulations.

## SPECIAL CATEGORY APPLICANTS

Applicants who wish to apply in one of the special categories listed below are encouraged to apply by the deadlines as stated for Regular Undergraduates. Applications will be accepted until the first day of registration for the term for which the student is applying. Special category students who have attended other colleges will not have their previous college work evaluated for transfer until such time as they have been approved for admission as regular undergraduates. An applicant who has applied as a regular undergraduate and failed to meet admission requirements must wait one regular
semester or six months before applying for admission in any special category.

## Special Undergraduate Applicants

An applicant who has (1) earned a baccalaureate degree from an accredited institution (2) who desires to take only a limited number of undergraduate courses, and (3) who is not presently working toward a degree at Memphis State University may be admitted as a Special Undergraduate Student by providing proof of the degree held and the date it was earned.

## Unclassified"Applicants

An applicant who wishes to enter the University, and is not presently pursuing a degree, may do so by applying for admission as an unclassfied student and meeting one of the two conditions listed below:

1. An applicant who has not attended another college or university must
A. provide proof of high school graduation or the equivalent or
B. be at least 21 years of age or provide proof that the high school class of which he or she was a member graduated at least three years ago NOTE: Those applicants under 21 who complete their high school work during the calendar year in which they seek admission will not be considered in the unclassified category. These applicants must apply as regular undergraduate freshman
2. A student currently/previously enrolled in an accredited college or university must submit evidence of eligibility to re-enroll at that school. Clearance will be for one term only. Subsequent enrollment will require an application for readmıssion.
NOTE: Transient students (those regularly enrolled and in good standing at another institution who desire to attend Memphis State for only a limited period of time) should apply in the unclassified category.

Those who are admitted as unclassified students are assigned to the Academic Counseling Unit for advising. Students in this category may not take more than 18 semester hours of work in a single term nor may they earn more than 24 semester hours total. This limit may be extended if there has been enrollment at another institution since last attending Memphis State.

The unclassified student may, at any time within the stated deadlines, apply to the Office of Admissions for reclassification as a regular student, effective at the beginning of the next regular semester. Admission procedures and requirements are the same as those for regular undergraduate applicants with the following clarifications:

1. An acceptable entrance examinatıon score or the equivalent is required for all students who wish to be reclassified.
A. Applicants who are 21 years of age or older or were a member of a high school class which graduated at least three years prior to the intended term of entry, may be reclassified by earning a cumulative Q.P.A. of 2.00 which must include 12 hours or more of non-activity courses at Memphis State and may submit a statement of educetional goals in lieu of an entrance examination score. B. Applicants who are less than 21 or were members of a high school class which graduated less then three years prior to the intended term of entry may be reclassified by earning e cumulative Q.P.A. of 2.00 which must include 12 semester hours or more of non-activity . The high school graduation requirement may be setisfied The high school graduation requirement may be setisfied
by any of the methods listed in the reguler undergreduete by any of the methods listed in the
freshman section of this cetelog.

After the student is admitted as a regular undergraduate, any credit that may have been earned as an unclassified student will apply toward degree programs in the college from which a degree is sought as outlined in this catalog

## Concurrent Enrollment

Outstanding high school students who have completed the junior year may be admitted and register for one college course per term of enrollment concurrently during their senior year provided they supply evidence of the following:

1. Aminimum high school cumulative grade point average (G.P.A.) of 3.20 on a 4.00 scale.

An ACT composite score of 21 or above.
. A recommendation from the applicant's high school principal or guidance counselor.
. The course a concurrently enrolled student registers for must be taken outside of his or her established school day.
NOTE: Departments may establish additional criteria for their courses.

## Early Admission

Academically outstanding high school juniors who have completed three academic years of high school, accumulating at least 14 units of course work may be considered for early admission if they have the following:

1. A minımum high school cumulative grade point average (G.P A.) of 3.5 on a 4.00 scale.
2. A minimum ACT composite score of $\mathbf{2 5}$
3. Written recommendations from high school principal and guidance counselor.
4. An interview with MSU faculty/staff committee selecting early admission students.
In addition. they must agree to enroll in Freshman English, and, unless successfully completed in high school, courses in American History and Economics NOTE: Early admission applicants should also check with their high school for specıfic graduation requirements.

## Audit Students

Persons who are not enrolled for credit courses may register for audit courses with the approval of the Office of Admissions and the appropriate department
chairman. These students must have the equivalent of high school graduation or be at least 18 years of age. Clearance will be for one term only. Subsequent enrollment will require an application for readmission. Those who are suffering from a permanent disability which totally incompacitates them from working at an occupation which brings an income, and persons sixty years of age or older, who are domiciled in Tennessee, may audit courses at Memphis State without paying tuition charges, maintenance fees, student activity fees, or registration fees. Admission to audit will be limited on an individual classroom basis according to space availability.

## Mini College

Mini College is a special entry and reentry program for adults who are entering college for the first time, or for those who are returning after being out of school for any number of years. It is designed to familiarize the non-traditional student with the academic programs and services available and to provide individual assistance in the admissions and registration procedure. Admission requirements are the same as those for the undergraduate application categories described earlier in this section.

Each fall and spring semester, Mini College offers a schedule of basic, entry level credit courses and a special registration during the two weeks prior to the beginning of classes. Most classes meet just once a week and are scheduled at convenient times, both day and evening, for the part-time student.

A student electing to take Mini College courses will receive regular credit and will attend classes with other returning
adult students. For further information, contact the Mini College Office.

## Combination Senior

An undergraduate senior student with a total cumulative GPA of at least 3.25 and who is enrolled in the last term of coursework at Memphis State University that will complete the requirements for a bachelor's degree, may request approval to enroll concurrently in undergraduate and selected graduate courses. The Combination Senior student is not considered a graduate student and may take no more than (9) departmentally approved graduate semester hours. After the bachelor's degree has been awarded, the Combination Senior may apply for admission to The Graduate School.

## Former Students (Readmission)

Former students who wish to return to the University in the same category as when they previously attended or in any special category must file an application for readmission. This form should be secured, completed, and returned to the Records Office. If the student has enrolled at another institution since last attending Memphis State University, a transcript must be forwarded to the Admissions Office. An applicant will receive favorable consideration only if eligible for readmission under all University regulations, including the quality point average (Q.P.A.) for transfer students. (NOTE: International students who wish to apply for readmis sion to the University must meet the deadlines for new admission for international students.)

## 3. EXPENSES AND AID

## FEES AND CHARGES

The information in this section concerning tuition, fees, deposits, etc., is applicable only to students enrolled in the undergraduate colleges and departments of the University. Similar information for students in The Graduate School and The School of Law is available in the catalogs of those schools.

The listing of any fee or incidental charge in this catalog does not constitute a contract between the University and the student. Because of rapidly changing conditions it may become necessary to alter a fee structure before the next
edition of the Catalog is published. As a condition of registration each student will pay the fees in effect at the time of registration.

## GENERAL APPLICATION AND REGISTRATION FEE INFORMATION

APPLICATION FEE: Each student submitting an application for admission to the University must pay, at the time of submitting the first application, a onetime, non-refundable fee of $\$ 5.00$.
PAYMENT OF FEES AND DEBTS: All fees are payable at the time of registration;
the University has no deferred fee payment arrangements. Fees may be paid through the use of Visa or MasterCard. Former students with outstanding financial obligations to the University cannot be re-enrolled until the obligations are paid.
MAINTENANCE FEE: All students, whether in-state or out-of state, pay a maintenance fee. Undergraduate fees are $\$ 39.00$ per semester hour, not to exceed a maximum of $\$ 463.00$. Students paying the fee for six or more hours are entitled to admission to home athletic events and certain health services, concerts, plays, social and other student-sponsored activities, and a subscription to the student newspaper, The Helmsman.

Fees payable are based on the course level, and the maximum fees will be the graduate maximum if a student is enrolled for any graduate hours.

The summer session consists of two separate terms of approximately six weeks each, plus an extended term for specified courses. Fees for the summer session are determined solely on a semester hour basis. The semester hour charge is $\$ 39.00$ for maintenance fees and an additional $\$ 85.00$ for out-of-state tuition.

Fees for audits will be assessed on the same basis as fees for credit courses. Courses offered between terms, for concentrated periods during a term, or at specific locations, may be subject to fees on a per-hour basis only.

The University will usually collect the amount of fees due based on a manual calculation at the time of registration; amounts collected are applied to total fees due, in accordance with fee rates in effect. After all enrollments are complete, a computerized calculation of fees due will be made based on actual course enrollments and residency classification. Any over-collections will be refunded, and students will be billed for any undercollections.
TUITION: Students classified as out-ofstate are charged an additional $\$ 984.00$ per semester for full-time students or $\$ 85.00$ per semester hour for part-time students. Thus, an out-of-state full-time student is charged $\$ 1447.00$. An out-ofstate student who is enrolled part-time is charged $\$ 124.00$ per semester hour.

The Office of Admissions and Records is charged with the responsibility of assigning a residency classification to each student using regulations provided by the Board of Regents. The student may appeal the decision to the Committee on Residency. Residency regulations of the Board of Regents and information on appeals procedures are available in the Office of Admissions and Records.

## TOTALLY DISABLED PERSONS AND PERSONS OVER 60 YEARS OF AGE:

 Persons suffering from a permanent disability which totally incapacitates such persons from working at an occupation which brings them an income, and persons who will become 60 years of age or older during the academic semester in which such persons begin classes, and who are domiciled in Tennessee, may AUDIT courses at Memphis State University without paying tuition charges, maintenance fees, student activity fees, or registration fees. Admission to AUDIT will be limited on an individual classroom basis according to space availability.Any person who is totally disabled, and persons who will become 65 years of age or older during the academic semester in which they begin classes, and who are domiciled in Tennessee, may enroll for courses for credit at the cost of $\$ 19.50$ per undergraduate semester hour, or $\$ 27.00$ per graduate semester hour, not to exceed $\$ 75.00$ per semester. The

University Health Services shall examine certification of permanent disability (not the applicant) and determine the eligibility of the applicant under this legislation.

Inquiries concerning these programs may be addressed to the Records Office, Administration Building, Room 115.
REFUND OF FEES (MAINTENANCE FEES, OUT-OF-STATE TUITION, MUSIC FEES, STUDENT ACTIVITY FEES): The following refund percentages apply to students who withdraw from the University or who drop to an hourly load below full-time:

1. $\mathbf{1 0 0} \%$ Refund: A full $(100 \%)$ refund of fees will be made for courses cancelled by the University Fees paid for second summer term courses dropped on or before the course adjustment day are also refunded in full.
2. $75 \%$ Refund: The University provides a $75 \%$ refund of enrollment fees beginning at the moment of registration and extending for a period of time as noted in the term calendar for the semester.
3. $\mathbf{2 5 \%}$ Refund: A $\mathbf{2 5 \%}$ refund of enrollment fees is provided after the expiration of the $75 \%$ refund period and concludes as noted in the term calendar for each semester.
4. $100 \%$ refund in case of death

The University refund policy is based entirely upon the official date of the withdrawal or change of course which would result in a refund. Refunds beyond the specified date or percentage cannot be made for reasons such as employment conflicts, health or medical problems, moving out of town, or other reasons which are beyond the University's control or responsibility.
Note: The dates for these refund periods are found in the term calendar in the Schedule of Classes. The refund period ends earlier than the final deadline for dropping a course or withdrawal. Refunds will be processed beginning approximately two and one-half weeks after classes begin and usually should be completed five weeks after classes begin.

## STUDENT HOUSING

RESIDENCE HALLS: Charges for rooms in University residence halls are indicated below.

APPLICATION PROCEDURES: Applications for residence hall space may be obtained from the Office of Residence Life, M.S.U., Memphis, Tennessee, 38152. Because spaces are allocated by date of receipt, completed applications accompanied by the required $\$ 100$ application/security deposit should be returned to the Office of Residence Life as soon as possible. Checks or money orders should be made payable to Memphis State University; please do not send cash.

Receipt by the Office of Residence Life of the housing application and $\$ 100$ check or money order, however, does not guarantee admission to the University or to a residence hall. THE DIRECTOR OF RESIDENCE LIFE RESERVES THE RIGHT TO REFUSE ANY HOUSING APPLICATION, TO CHANGE OR CANCEL ANY ASSIGN MENT, OR TO TERMINATE A RESIDENT'S OCCUPANCY, FOR JUSTIFIABLE CAUSE.

CONTRACTPERIOD AND CONDITIONS: Fall assignments/contracts are for the full academic year (fall and spring semesters). Fall residents wishing to petition for release from their contract for the spring semester must do so in writing by the second Friday in November. Residents who cancel after this date, but prior to claiming their key for the spring semester, will forfeit $50 \%$ of their application/ security deposit. Residents who fail to cancel by 4:30 P.M. on the first day of undergraduate registration will forfeit the entire deposit. The application/security deposit, once submitted with the application, covers the student's initial term of occupancy and all subsequent terms of occupancy and continues until such time as it is cancelled in writing. There will be no penalty if written cancellation is received prior to the published deadline for any specific contract period.

CANCELLATION POLICY; Full deposit and pre-payment of rent will be refunded if: (1) the institution is notified a minimum of 30 calendar days prior to the first official day of registration for the first semester in which the contract is in force, (2) the student is prevented from entering the University because of personal medical reasons confirmed in writing by a licensed physician, (3) residence hall space is not available, or (4) the student is denied admittance or readmittance to the University. Full refund will be made in the case of death. NO REFUNDS WILL BE MADE FOR OTHER THAN THE ABOVE CONDITIONS.

New applicants who fail to cancel by the deadline referred to in (1) above but before $4: 30$ P.M. on the first day of undergraduate registration (NO SHOW DATE) will forfeit $50 \%$ of their deposit, but will not be subject to any other penalties. New applicants who fail to cancel by $4: 30$ P.M. on the first day of undergraduate registration will forfeit their entire deposit. (This is applicable to both the fall and spring semesters.)

REFUND OF RESIDENCE HALL RENT: Refunds of residence hall rent after registration will be pro-rated on a weekly calendar basis when the student is forced to withdraw from the residence halls (1) because of personal medical reasons confirmed in writing by a licensed physician or (2) at the request of the institution for other than disciplinary reasons. Full refund will be made in the case of death.

For reasons other than the above stated, the following procedure shall apply: 75\% of fees will be refunded for withdrawal from the residence halls for a period of 14 calendar days beginning with and inclusive of the first official day of classes or within an equivalent period for a shortterm course; $25 \%$ of fees will be refunded following expiration of the $75 \%$ period, for a period of time extending $25 \%$ of the time covered by the term. NO REFUNDS WILL BE MADE FOR OTHER THAN THE ABOVE CONDITIONS

| Dormitory | Type Room | Semester <br> Rate** |
| :---: | :---: | :---: |
| Browning | Double | \$415 |
|  | Single | 560 |
| Hayden | Double | 450 |
|  | Single | 610 |
| McCord | Double | 430 |
|  | Single | 580 |
| Mynders | Double* | 465 |
|  | Small Single* | 615 |
|  | Middle Single* | 640 |
|  | Large Single* | 655 |
|  | Large Single ** | 680 |
| Newport | Double* | 560 |
|  | Single* | 755 |
| Rawls | Double | 510 |
|  | Single | 690 |
| Richardson Towers | Double* | 540 |
|  | Single* | 730 |
| Robison | Double | 510 |
|  | Single | 690 |
| Smith | Double | 430 |
|  | Single | 580 |
| West | Double | 430 |
|  | Single | 580 |
| *Semi-Private Bath <br> **Private Bath |  |  |
| ***Fees quoted are subject to change. | 1984-85 A | ic Year and |

STUDENT FAMILY HOUSING: The University has 126 apartments for students with families located on South Campus, approximately one mile from the central part of the campus. There are 70 two-bedroom and 56 one-bedroom apartments. All apartments are furnished with electric stove, refrigerator, carpeting, and garbage disposals. The 1984-85 monthly rental rates are as follows: one-bedroom apartment, \$200; two-bedroom apartment, $\$ 230$. Electrical utilities are paid by the tenant.
Application forms may be obtained from the Office of Residence Life. A $\$ 100$ deposit is required when the application is submitted.

## MISCELLANEOUS FEES

ADDING AND DROPPING COURSES: A fee of $\$ 5.00$ will be charged for each change of course form processed, regardless of the number of course or section changes included on the form.
AIR FORCE ROTC DEPOSIT: A uniform deposit of $\$ 10.00$ is required of each student who enrolls in the Air Force ROTC program. The uniform deposit, less charges for uniform loss or damage, will be refunded at the end of the academic year or at the beginning of a semester in which the student is not enrolled in the ROTC program.
AUTOMOBILE REGISTRATION: Each person who expects to operate and park any motor vehicle on the campus must pay $\$ 5.00$ for an official permit, valid from September through August, and register the vehicle in the Security Office. A reduced fee of $\$ 4.00$ is charged for vehicle registrations after January 1, and $\$ 2.00$ after May 1. Residence hall occupants
should ask for a special resident decal when registering their automobiles.
CREDIT BY EXAMINATION OR PLACEMENT EXAMINATION: The fee for taking an examination for credit is $\$ 45.00$ minimum and an additional $\$ 15.00$ for each credit hour over three; this fee must be paid prior to the examination. The same fee must be paid when an application for credit is made under the Credit by Placement Examination policy.
DIPLOMA FEE: Each candidate for a degree from Memphis State University pays a $\$ 25.00$ fee to cover cost of the diploma, rental of cap and gown, and incidentals connected with the commencement exercises. This fee must be paid thirty days before graduation.
EXPERIENTIAL LEARNING CREDIT FEES: Students who wish to apply for credit for experiential learning will pay $\$ 15.00$ per credit hour granted after evaluation of their learning and assignment of credit. For those students who are enrolled under a group contract, a maximum fee of $\$ 90.00$ will be assessed for credits assigned under the terms of the contract.
Currently the University College, the College of Communication and Fine Arts, and the Herff College of Engineering (Trade and Industrial Vocational Technical Education majors) award credit for experiential learning. See "University College Fees" and "Commercial Music Fees" for related fee information.
IDENTIFICATION CARDS: The University issues to each student an identification card which bears the student's photograph, social security number, and certification of enrollment as a student in the University. The card remains the property of Memphis State University.

Inquiries about student identification cards should be made in the Office of the Assistant Dean of Students. The card, with the current validation decal, is required for the borrowing of library books, admission to or approval to pick up or purchase student tickets to athletic and social events, the sale of used textbooks, and other official purposes. The card is also required to gain admission to the Registration Center each registration period.

Part-time students who are enrolled for at least six semester hours of credit courses will be given full-time I.D. card validation.

The I.D. card is renewed during registration of each semester the student is enrolled. The summer sessions are considered as a semester.

If an I.D. card is lost or stolen, the student has twenty-four hours to file the proper report with the Assistant Dean of Students and/or the Security Office. In all cases, a student will be required to have a replacement card made. The replacement fee is $\$ 10.00$ for a card that has been damaged, stolen, or lost. A student will be charged a $\$ 2.00$ fee to make any change in data on the card.

The card, as part of the withdrawal procedure, must be presented to the proper official before withdrawal from the University can be considered complete.

Fraudulent use of the I.D. card will result in disciplinary action. The card is issued to the individual student and must not be loaned to another person for any reason.
LABORATORY DEPOSITS: Certain courses in chemistry require breakage deposits from $\$ 10.00$ to $\$ 20.00$ per semester, depending upon the course. Any unused portion of these deposits will be refunded.
LATE REGISTRATION: Students who do not complete registration (including the payment of fees) during the official registration period will be charged $\$ 10.00$ for any late registration following the official registration period.
MEALS: The University cafeterias, student centers and vending areas, open to all students, provide wholesome food at reasonable prices. Cost of meals per student is estimated at $\$ 6.00$ to $\$ 7.25$ per day.

## MUSIC FEES:

COMMERCIAL MUSIC: Students who wish to apply for credit for experiential learning in Commercial Music may obtain guidelines for this procedure from the Dean of the College of Communication and Fine Arts. A non-refundable $\$ 25.00$ contract advising fee will be charged for the assessment of the portfolio. See "Experiential Learning Credit Fees" for related fee information.
COURSES IN APPLIED MUSIC: The fee for applied music shall be $\$ 30.00$ per semester for each one-half hour lesson.
MUSIC LOCKER DEPOSIT: Music students are required to have a locker for storage of University-owned musical instruments or equipment. Personal instruments may also be stored in lockers. A deposit of $\$ 3.00$ for one semester or $\$ 4.00$ for two semesters is required on each locker issued. This deposit, less a service charge of $\$ 1.50$ per semester, will be refunded upon return of the lock. Students will be expected to pay for any damages.
PHYSICALEDUCATION LOCKER AND TOWEL FEE: Students enrolled in physical education courses must pay a fee of $\$ 4.00$ for the locker and towel issued them. Students must provide their own lock.
NO-MORE-CHECKS STATUS: Students who have had more than one (1) returned check in the past twelve months are on a No-More-Checks status and, accordingly, a personal check will not be accepted in payment of registration fees. Students on a No-More-Checks status should be prepared to pay registration fees in cash, cashiers check, or certified check.
RETURNED CHECKS: It is expected that a check given to the University, for any reason, will be honored by the bank
on which it is drawn. A check dishonored by the bank on which it is drawn may be presented a second time at the discretion of the University. A $\$ 10.00$ returned check charge will be assessed for all checks returned. Returned checks, used as payment of registration fees, which are not promptly redeemed, will result in the deletion of the student from the class rolls. The privilege of making payments for fees and charges by personal check and check cashing privileges will be revoked for any student who has had more than one returned check within a twelve month period for a period of one (1) year from the date the last check is redeemed.
STUDENT ACTIVITY FEES: All students enrolled for one to five credit hours will pay a student activity fee of $\$ 1.00$ per hour. All students enrolled for six or more credit hours will pay a student activity fee of \$15.00.
TRANSCRIPTS: There is no fee for transcripts. However, the student will be charged $\$ 1.00$ for each official transcript over the maximum of five (5) per request. Transcripts are issued only at the request of the student in person or by letter. No transcript will be provided for a student who has any unfulfilled obligations to the University.
UNIVERSITY COLLEGE FEES: In addition to their $\$ 5.00$ application fee, students who apply to the University College must pay a screening fee of \$15.00, which is non-refundable. If accepted into the University College, the student must pay a non-refundable contract-advising fee of $\$ 25.00$.

## SUMMARY OF EXPENSES

$\left.\begin{array}{lrl} & \begin{array}{l}\text { Per Hour } \\ \text { (Summer } \\ \text { and }\end{array} & \begin{array}{l}\text { Fall end } \\ \text { Spring Semester }\end{array} \\ \text { Per Semester } \\ \text { (Full Time) }\end{array}\right\}$

Laboratory breakage (refundable less charges Music locker deposit Music lock
per year
4.00

Additionel Cherges
The University reserves the right to increase the charges listed herein or to add new ones whenever such increases or additions are found to be necessary.

## APPEAL PROCEDURES

APPEAL PROCEDURES FOR FEES AND REFUNDS: A student may appeal the assessment, application, calculation or interpretation of any University fee, charge, deposit, or refund, or any University action connnected with fees and charges. Questions should generally be discussed with personnel in the Bursar's Office. If a student is not satisfied with the resolution made by the Bursar's Office, a written appeal, on forms available in the Bursar's Office, can be made to the Director of Finance; this determination may be appealed to the Vice President for Business and Finance; and this determination may be appealed to the President of the University. Traffic fines are subject to a separate appeal procedure.

## STUDENT AID

The University Student Financial Aid Office provides financial assistance for students in the form of scholarships and grants, loans and student employment. This office counsels with students about college expenses and financial aid opportunities.

In addition to the university financial aid application, all applicants for finanical assistance must submit the American College Testing Program Family Financial Statement. All undergraduate students applying for financial aid must apply for the PELL Grant Program. All forms may be obtained through the Student Aid Office upon request. The ACT Family Financial Statement is also available in most high school guidance offices.

The preferred application deadline for fall applications is April 1. For the spring semester the preferred application date is November 1. Applications are acknowledged as they are received, and award notices are mailed around August 1 for the fall semester. All awards are made on an academic year basis. All students must submit a new application each year.

## SCHOLARSHIPS

The University awards several hundred scholarships each year in varying amounts from $\$ 50$ to $\$ 2,500$. Most scholarships awarded cover the a mount of registration fees, but the stipend is determined by the student's need for financial assistance in many cases. Scholastic achievement, personal and leadership qualities and need are factors utilized in evaluating applicants and determining the value of the scholarship offered.

Scholarships are awarded for the academic year and are not available for summer school. Freshmen applying for scholarships must rank in the top twentyfive percent of their high school graduating classes. Currently enrolled students must have at least a 2.5 overall grade point average. Each student wishing scholar-
ship consideration must submit an application each academic year. The General University Scholarship deadline date is March 1; however, some scholarships have an earlier date. Information on special scholarships may be obtained from the Student Aid Office.

## STATE BOARD OF REGENTS SCHOLARSHIP

The State Board of Regents Scholarship is for Tennessee residents with a 2.8 G.P.A. or higher. Freshmen applying for the scholarship must rank in the upper quartile of their graduating class. The scholarship covers mandatory fees, and there is a service or work requirement for recipients.

## ALUMNI VALEDICTORIAN SCHOLARSHIP

The Memphis State University Alumni Association provides a Valedictorian Scholarship for the top scholar from each of Tennessee's accredited or state approved high schools. The qualifications for this program are that the recipients must rank number one in their class and meet the admission requirements of the University. The award, in an amount equal to in-state registration fees, is for one year and is based solely on academic standing.

## CECIL C. HUMPHREYS PRESIDENTIAL SCHOLARS PROGRAM

Four-year competitive scholarships of \$12,000 are awarded annually to entering freshmen of the highest academic attainment without regard to financial need. Scholarships are selected on the basis of the following criteria:

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An ACT score of 28 or higher, or the corresponding SAT
score.
High school transcript
Excellence of performance in an area of interest
Quantity and quality of extra curricular and extra-mural
activities.
Evidence of sound character, work habits, and attitude.
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The scholarship program is funded by contributions to the Memphis State University Annual Fund from alumni and other friends. The scholarship program is named for Cecil C. Humphreys, President Emeritus of Memphis State University. Applications and information regarding the criteria and deadline for application are available from The Presidential Scholars Program, Memphis State University, Memphis, Tennessee, 38152.

## THE EARLY SCHOLARS SCHOLARSHIP PROGRAM

The Early Scholars Scholarship Program guarantees non-competitive scholarships to entering freshmen of the highest academic attainment without regard to financial need. Students who have an ACT score of 29 or better or a comparable

SAT score and a high school G.P.A. of 3.5 will automatically qualify for a yearly registration fee scholarship and book stipend of $\$ 300$. Students who have an ACT score of 26,27, or 28 or comparable SAT scores and a 3.5 high school grade point will automatically qualify for a yearly registration fee scholarship. Continued eligibility will be based on maintaining a 3.0 G.P.A. at the end of the freshman year and a 3.25 G.P.A. each year thereafter. Eligible students in the 26 to 28 ACT score range will have a 15 hour per semester service requirement. The deadline for application is December 1 for the following fall semester.

## HIGH SCHOOL LEADERSHIP SCHOLARSHIPS

High School Leadership Scholarships will be given annually to 10 high school students in the West Tennessee area. The scholarship covers in-state tuition for one year. Each high school principal/ counselor in West Tennessee may nominate one candidate from the high school. These students must have a minimum ACT score of 20 and a minimum G.P.A. of 2.5. The nominee's participation in a leadership role in community activities will be considered; however, primary focus will be on high school leadership (student council, class officers, club and organization office, athletics, etc.). Inquiries should be made of the Vice President and Dean of Students, Student Educational Services, Memphis State University, Memphis, Tennessee, 38152.

## GENERAL SCHOLARSHIPS

THE GENERAL UNIVERSITY SCHOLARSHIP FUND provides scholarships varying in amount and duration to outstanding high school students.
THE C. M. GOOCH SCHOLARSHIP FUND was established from proceeds of the estate of the late Mr. C. M. Gooch. Its purpose is to provide grants to students who without such assistance would not be able to attend college. The maximum a student may expect to receive in a calendar year is $\$ 300$. The student must be in good academic standing and must show a need for assistance as determined through application procedures of the Student Aid Office.
THE TAYLOR AND MARY RICHAR DSON SCHOLARSHIP is awarded to a graduate of Lake County High School in Tiptonville, Tennessee. Applicants must apply and be accepted as freshmen, demonstrate academic ability, and financial need.
THE BILLY M. JONES SCHOLARSHIP was established to honor the former President of Memphis State University, Dr. Billy M. Jones. The scholarship is a warded to an undergraduate student studying marketing, commercial arts, any discipline within the College of Communication and Fine Arts, any proposed course in institutional development, or area relating to the Division of University Community Relations
THE JOHNW. AND MYRTLEP. RICHARDSON SCHOLARSHIP is awarded to students in the upper quartile of their high school class who show a need for financial assistance. The scholarship may be awarded to a student already enrolled at MSU. The recipient must maintain a 3.0 G.P.A. The award covers in-state tuition
THE WILLIAM TIDWELL SCHOLARSHIP is awarded to a deserving and qualified student that is selected by the Student Aid Office at Memphis State University.
THER.C. ANDERSON SCHOLARSHIP is restricted to mate students between the ages of 18 and 24 from Benton. Decatur, and Henderson counties in Tennessee. The awerd covers egistration fees for the freshman and sophomore years Selection will be mede on the basis of the quality of high school performance with particular attention given to ACT scores.
THE JOSEPHINE CIRCLE SCHOLARSHIP is awarded to en entering female freshman.
THE EDWARD A. HAMILTON FIRE FIGHTER SCHOLARSHIP is awarded to a fire fighter or dependent of a fire fighter who is in need of financial assistance.
THE MSU UNIVERSITY WIVES SCHOLARSHIP is ewarded to a student who has at least e sophomore standing, e 3.0 minimurn G.P.A., and demonstretes finenciel need.
THE JAMES E. McGEHEE MORTGAGE COMPANY SCHOLARSHIP wes endowed in 1966 by the McGehee

Mortgage Company with e $\$ 10,000$ donation. Interest from the investment of these funds is used to eward an ennue scholarship to en outstending high school graduate
THE MEMPHIS STATE UNIVERSITY FACULTY-STAFF SCHOLARSHIPS are awarded annually to several students on the basis of scholastic ability. Preference is given to children of faculty and staff.
THE BILLY J. MURPHY SCHOLARSHIP was esteblished in 1974 to honor former MSU Athletic Director. Billy J. Murphy, for his long service to the school. The award is made to e Memphis erea student who has demonstrated financial need and shows scholastic ability.
THE HATTIE G. WATKINS SCHOLARSHIP provides scholarships to students on the basis of scholastic standing and financial need. These scholarships are awarded to students who are employed on a part-time basis to help finance educational expenses
THE HORACE H. WILLIS MEMORIAL SCHOLARSHIP is awarded to an incoming freshman on the basis of need for financial assistance and evidence of academic promise.
THE ABE WALDAUER MEMORIAL SCHOLARSHIP provides one scholarship to a Shelby county resident who demonstrates exceptional academic achievernent and financial need.
THE LESLIE GRUBER SCHOLAR SHIP is awarded annually to an incoming Tennessee high school graduate who has shown academic ability of at least a 3.0 G.P.A. on a 4.0 scale, end, most importantly, financial need.
THE JAMES McCLENDON HIGHLAND 100 SCHOLARSHIP is awarded to a Memphis area high school graduate who has demonstrated financial need and academic potential.
THE MEMPHIS HIGH SCHOOL ALUMNI SCHOLARSHIP is for graduates of Memphis high schools only. The recipient must demonstrate academic ability
THE HENRYM. AND LENA MEYER KAHN SCHOLARSHIP is awarded to students who score 21 or above on the ACT and have a high school GPA of 3.0 or above. Preference given to boys and girls of Jewish faith.
THE TAYLOR AND MARYRICHARDSON SCHOLARSHIP is awarded to graduates of Lake County High School in Tiptonville, TN Recipients must demonstrate academic ability and financial need.
THE JOHN W. AND MYRTLE P. RICHARDSON SCHOLARSHIP is awarded to students in the upper quarter of their high school class who are in need of financial assistance.
THE JERRY N. BOONE AWARD is awarded to a student currently enrolled at Mernphis State University who is in good standing academically and demonstrates financial need.
THE COMMUNITY COLLEGE PRESIDENTIAL SCHOL. ARSHIP is awarded to one student from each of Tennessee's ten community colleges in honor of the president of that college.
THE JOHN WILCOX SCHOLARSHIP is awarded to one freshman, sophomore, junior, and senior at Memphis State University. The recipients must maintain a 2.5 overall G.P.A. et Memphis State University.
THE LAKE COUNTY SCHOLARSHIP is awarded to a Lake County High School graduate who has an intense interest in obtaining a college degree and demonstrates financial need. THE MIKE DRIVER SCHOLARSHIP is awarded to a student who is in good academic standing at Memphis State University. THE ARTHUR HAMILTON MEMORIAL SCHOLARSHIP is awarded to a student enrolled at Memphis State University who is a Dyer County High School or Dyersburg High School graduate, who shows financial need and is academically talented.

## the college of arts AND SCIENCES

THE ANNETTE K. DAVIDSON MEDICAL TECHNOLOGY SCHOLARSHIP is designed to assist qualified individuels to complete the pre-professional medical technology curriculum at Baptist, Methodist, or St. Francis hospitals.
THE BLANCHARD S. TUAL MEMORIAL SCHOLARSHIP is awarded to a student at MSU majoring in History with a G.P.A. of 2.0 or better
THE BELLE McWILLIAMS SCHOLARSHIP recipient must be enrolled in the College of Arts and Sciences demonstrating an above average interest in American History, having diverse extra-curricular activities, and demonstrating outstanding acadernic achievement. The recipient must be a sophomore or above with at least a 3.0 G.P.A.
THE CARROLL BOWMAN SCHOLARSHIP is awarded to e philosophy major with demonstrated financial need end academic potential.
THE OPPORTUNITY FOUNDATION PAUL SCHWARTZ SCHOLARSHIP covers maintenance fees for social work majors who are seniors with a 2.5 minimum G.P.A
THE BOTANY BOOK AND SCHOLARSHIP FUND is awarded to a student studying Botany or Biology at Memphis State University
THE JOHN J. BELEN CHIA UNICO MEMORIAL SCHOLARSHIP is ewarded to a junior of senior Criminal Justice major who is in good standing and shows financial need.
THE ELIZABETH C. PHILLIPS MEMORIAL SCHOLARSHIP is awerded to e black student majoring in English at Memphis have et least a 2.50 G.P.A.

## THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS

THE ALLEN ROBINSON MEMORIAL SCHOLARSHIP ennually offers e scholarship to a qualifying student ASPA chepter member mejoring in management with e concentretion
in personnel administration/industrial relations at Memphis State University. The recipient must have at least a 2.8 G.P.A attained through a minimum of 55 semester hours college credit.
THE CASUAL CORNER MARKETING SCHOLARSHIP annually awards two scholarships to Support students of out standing scholarship who are majoring in marketing and concentrating in retailing. Recipients should have an interes in fashion retailing.
THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS SCHOLARSHIP-MEMPHIS CHAPTER presents a scholarship to accounting majors based on good
scholarship, co-curricular activities, character, and financial scholar
need.
THE INSURANCE WOMEN OF MEMPHIS SCHOLARSHIP is awarded to an insur ance major who has at least sophomore standing Applications may be obtained through the Finance, Insur ance, and Real Estate Department
THE TILSON REAL ESTATE SCHOLARSHIP is awarded to two MSU students majoring in real estate
NORRELL SERVICES/SALES AND MARKETING EXECUTIVE SCHOLARSHIP is awarded to a junior or senio majoring in or has an int ROBERT HUNTING JR., WHITE STATION OPTIMIST CLUB SCHOLARSHIP is awarded to a student interested ir the field of banking who has at least a 2.5 G.P.A. and naed financial assistance to attend Memphis State University
THE YOUNG MORTGAGE BANKERS SCHOLARSHIP is awarded to a student majoring in real estate or finance with a career objective of real estate lending who is an active membe of Rho Epsilon Real Estate Professional Fraternity
THE THOMAS Y. OWEN SCHOLARSHIP is awarded to a US. resident, accountıng major, demonstrating both financial need and outstanding academic achievement
THE ETHEL LEWIS SCHOLARSHIP is an award sponsored by the Univer sity Career Women of Mernphis State University The award is avalable to a junior or senior student majoring ir office administration or preparing for a career as a business teacher.
DR. R. W. JENNINGS SCHOLARSHIP, a memorial to a former MSU faculty member, provides financial assistance to students in office administration
GREATER MEMPHIS EMPLOYEE BENEFITS COUNCIL SCHOLARSHIP is sponsored by the Greater Memphis Employee Benefits Council formed in 1977 to advance employee benefits planning. The scholarship will be awarded to two Memphis State University students of at least junior classification, majoring with an area of concentration in the School, or other related areas with a career interest in the School, or other related
employee benefits field.

THE JOHN ELKINGTON SCHOLARSHIP in Land Use Development is awarded to a junior student with a minimum Preference given to a student with career interest in the lanc use development field.
THE MEMPHIS MOTOR CARRIERS ASSOCIATION SCHOLARSHIP is awarded to a marketing major with a
concentration in Transportation. Student must be in good standing academicallyand be a junior or senior in classification.
THE HOLIDAY INNS INCORPORATED SCHOLARSHIP iS awarded to students within the Fogelman College of Business and Economics. Each year the number of and amount of the scholarships are dependent upon the number of MSU
graduates employed by Holiday Inns For more information graduates employed by Holiday Inns For more information
contact the Fogelman College of Business and Economics.
THE JOY CRADDOCK MEMORIAL SCHOLARSHIP is a memorial award presented each year by the Women's Council of Realtor s to a junior or higher level student with a GPA of 25
or above, and majoring in Real Estate or any allied discipline or above, and majoring in Real Estate or any allied discipline

THE TENNESSEE RETAIL GROCERS ASSOCIATION SCHOLARSHIP provides assistance to students seeking a career in the food industry. The recipiant must be a Tennessee resident who has at least a 275 G.P.A. and shows financial need
THE ARTHUR ANDERSEN AND CO. ACCOUNTING EXCELLENCE SCHOLARSHIP FUND is awarded to a student enrolled at Memphis State University who will be a senior in classification, majoring in accounting, have a
minimum G.P.A of 3.0, and has demonstrated leadership minimum G.P.A of 3.0 , and has dem
THE TRAFFIC CLUB OF MEMPHIS MEMORIAL SCHOLAR SHIP FUND is awarded to a junior or senior marketıng major who has a concentration in Transportation.
THE DELTA LIFE AND ANNUITY SCHOLARSHIP is a warded to a student in junior standing in the Fogelman College of Business and Economics with a major in insurance or finance who hes career intentions of entering the life of insurance. financial planning or estate planning fields.
THE BURROUGHS SCHOLARSHIP is awarded to a Marketing or Sales/Marketing major who has an overall
G.P.A of 2.5 and is a U.S. citizen or permanent resident of the G.P.

THE LAYNE SPROLES MEMORIAL SCHOLARSHIP IS awarded to students majoring in an area within the Fogelman College of Business and Economics who hava a 2.5 or above overall G.P.A. Preference is given to students pursuing a
career in some area of Office Admınistration, Management, or Accounting
THE JACK J. WALLACE SR. MEMORIAL SCHOLAR SHIP is awarded to a junior or senior sales and marketing major who hes a career interest in sales and marketing.

## THE COLLEGE OF COMMUNICATION AND FINE ARTS

the vafiety club - robert s. Johnson scholarSHIP was endowed in 1974 to honor the late noted writer for the Memphis Press Scimitar. A scholar ship is given to a ju nior or senior majoring in jour nalism and seeking a career in sorme phase of that profession. Both financial need and s
are factors utilized in the selection of the recipient
THE MERBERT HERMANN MEMORIAL PIANO SCHOLARSHIP is awarded to a pianıst with at least a 20 ACT score or a 3.0 G P. A. Auditions for jury board exams will be considered The scholarship selection is coordinated by the Music Depart ment piano faculty and the Student Aid Office.
THE ART DIRECTORS CLUB OF MEMPHIS offers a scholarship to encourage talented students in the field of graphic arts
THE ELEANOR B. O'NEILL SCHOLARSHIP is awarded to a unior or senior student in journalism, public relations, or advertising who shows promise in the field.
THE FRANCES FALLS AUSTIN SCHOLARSHIP FUND is awarded to a deserving student pursuing an undergraduate degree in art within the College of Communication and Fine Arts.
MEMPHIS GRIDIRON SHOW INC. BERL OLSWANGER SCHOLARSHIP is awarded to an undergraduate student a Memphis State University who has an interest in music.
THE BAND ALUMNI SCHOLARSHIP FUND is awarded by he Board of Directors of the Band Alumni Chapter from candi have at least a 2.5 G.P.A. and should possess some musical have atily.
THEATRE AND COMMUNICATION ARTS SCHOLARSHIPS are awarded to students majoring in theatre and communication arts.
THE MUSIC ALUMNI SCHOLARSHIP is funded for the purpose of providing scholarships for students in the Music Department.
THE DANA D. JOHNSON SCHOLARSHIP is awarded to a freshman, transfer, or upperclass student who is majoring in art and has at least a 3.0 G.P.A
THE MEMPHIS GRIDIRON MIKE McGEE MEMORIAL SCHOLARSHIP is awarded to an upperclassman majoring in journalism who has demonstrated outstanding scholastic and journalistic ability.
THE SCRIPPS-HOWARD FOUNDATION, EDWARD J. MEEMAN SCHOLARSHIP is awarded to a junior or senior student in journalism who intends to enter the field of newspaper journalism
ISAAC HAYES EVENING OF SOUL SCHOLARSHIPS are awarded to students majoring in theatre and communication arts on the basis of financial need and demonstrated com petence in communication and/or theatre arts.
THE MEMPHIS AREA BROADCASTERS SCHOLARSHIP s awarded to an outstanding undergraduate in the area of broadcasting.
THE ELBA GANDY MEMORIAL MUSIC SCHOLAR SHIP is awarded to a student studying music at Memphis State University.
THE ETHEL T. MAXWELL VOICE SCHOLARSHIP is given to a voice major in the applied music degree program, Bachelor of Music. The recipient must be in the upper quartile of their high school class and have a demonstrated voice talent.
THE BEALE STREET MUSIC PRESERVATION SCHOLARSHIP is awarded to a graduate student in regional studies who has a 3.0 G.P.A and demonstrates financial need
THE BILLY M. JONES SCHOLARSHIP is awarded to a student studying and/or working in an area that relates to community relations. This would qualify any undergraduate student studying in marketıng, commercial art or any disci-
plıne within the College of Communication and Fine Arts to pline
THE JOURNALISM ALUMNI SCHOLARSHIP is awarded to a junior or senior journalism major who has at least a 2.5 G.P.A and shows an interest in pursuing a career in the ournalism field.
THE MEMPHIS CHAPTER, PUBLIC RELATIONS SOCIETY OF AMERICA SCHOLARSHIP is awarded to a senior majoring in public relations who has a 30 G.P.A. and is an active member of the MSU PRSSA Chapter
THE IMOGENE FARN SWORTH SCHOLARSHIP Is intended o serve as a supplementary fund for art supplies to studants who have merit as well as financial need.

## THE COLLEGE OF EDUCATION

SARAHP. EATON SCHOLARSHIP, funded by a gift from the estate of Sarah Prewett Eaton, provides scholarships for elementary aducation students from Critenden and St. Frances counties in Arkansas
THE KERMIT G. HANCOCK SCHOLARSHIP FOR DIS TRIBUTIVE EDUCATION provides scholarshıps to students who plan to major in distributive education and become taachers of marketing and distributive education in high schools in the State of Tannessee.
THE C. EDWIN PEARSON DISTRIBUTIVE EDUCATION SCHOLARSHIP is presanted to outstanding Memphis area SCHOLARSHIP is presanted to outstanding Memphis area high school distributive education students who plan to attend
Memphis State University and major in distributive education. THE MEMPHIS HOME FURNISHINGS ASSOCIATION SCHOLARSHIP is awarded to a home furnishings major in he Home Economics Department who has earned at least a 2.5 G.P A. Preference will be given to junior or senior students with additional consideration for those whose families are employed in the home furnishings industry.

THE KIWANIS CLUB OF EAST MEMPHIS MEMORIAL SCHOLARSHIP is presented to a junior or senior majoring in special education and demonstrating high achievement and need. The recipient must be a Shelby County resident
THE LETTIE P. WHITEHEAD FOUNDATION SCHOLARSHIP is provided for full-time study in special education. nursing to Christian girls who are in need and deserving of such assistance
THE HAROLD W. PERRY SCHOLARSHIP is awarded to a student majoring in special education and rehabilitation who, in tratning as a teacher to work with the multihandicapped, demonstrates high scholastic achievement, experience, and a willingness to work with the handicapped.
INTERIOR DESIGN SCHOLARSHIP FUND is awarded to a worthy student showing a sincere interest in the study of interior design
THE ALPHA DELTA KAPPA ALPHA CHAPTER SCHOLARSHIP is awarded to a junior or senior who is a Shelby Count esident, has demonstrated high academic achievement and need, and plans to pursue the profession of teaching
THE ALPHA DELTA KAPPA LAMBDA CHAPTER SCHOL ARSHIP is awarded to a junior or senior who is a resident o West Tennessee,has demonstrated high academic achievement, and plans to pursue the profession of teaching.
THE ALLEN SCHACKELFORD EAST MEMPHIS EX. CHANGE SCHOLARSHIP is awarded to a hearing impaired or deaf student who is enrolled full-time. If no qualified be a teacher of the deaf. THE QUOTA CLUB OF MEMPHIS SCHOLARSHIP is awarded to a student in school training to be a teacher of the hearing impaired or deaf. The recipient must have financial need for the scholarship.
THE COLLEGE OF EDUCATION ALUMNI CHAPTER SCHOLARSHIP is awarded to an education major. The tive G.P.A
THE PAT JUSTICE MEMORIAL SCHOLARSHIP is awarded to a student pursuing a career in the teaching profession. It is based on academic merit and is awarded to Memphis State Society. THE PAT KERA INCORPORATED SCHOLARSHIP is awarded annually to a junior or senior student in good academic standing, majoring in either Home Economics, Art. or a discipline connected with the area of Fashion Design.
THE ERNEST C. BALL SCHOLARSHIP is awarded to a student majoring in Education who shows academic ability and financial need.

## the herff college OF ENGINEERING

THE HERFF ENGINEERING SCHOLARSHIPS provided annually through the Herbert Herff Estate are available to beginning and currently enrolled students who have a demonstrated aptitude for engineering. Applications for these scholarships
Engineering
THE MASONRY INSTITUTE OF TENNESSEE SCHOLARSHIP is awarded to a junior or senior student with a career SHIP is awarded to a junior or senior student with a career interest in the field of masonry, majoring in erchitecturel who has earned at least a 2.0 cumulative G.P.A.
THE MEMPHIS SOCIETY OF PROFESSIONAL ENGINEERS SCHOLARSHIP is awarded to an upcoming junior engineering student ${ }_{\text {w }}$
THE MINORITY ENGINEERING SCHOLARSHIPS are for full-time engineering studants who are U.S. citizens or ful-time engineering studants who are U.S. Citizens or
nationals who are Black. Chicano/Mexican American, Puerto nationals who are Black, Chicano/Mexican American, Puerto
Rican, or American Indian, who are enrolled in engineering Rican, or American Indian, who are enrolled in engineering
programs for the first time and who need some financiat assistance in order to pursue an engineering education.
THE RAYMOND JOHN AND MYRLIE FENNER COLTHARP MEMORIAL SCHOLAR SHIP IS awarded to an undergraduat engineering technology student who has at leest e 2.0 G.P.A. and financial need.
THE INSTITUTE OF NUCLEAR POWER OPERATIONS SCHOLARSHIPS are awarded on the basis of merit to interest in and potential for nuclear utility careers.
THE DEMPSEY B. MORRISON, JR., MEMORIAL SCHOLARSHIP is awarded to an undergraduate engineering technology student who has at least a 3.0 G.P.A. and financial need.
THE BRUCE TUCKER MEMORIAL ASSOCIATED GENERAL CONTRACTORS SCHOLARSHIP is awarded to e student in the junior year, who is pursuing e civil engineering or construction technology degree
THE RICHARD E. WHITMORE SCHOLARSHIP is awarded to a Tennessee resident who is a sophomore, junior, or senior engineering student demonstrating both financial need and academic achievement; preferably majoring in construction and en active member of the student chapter of AGC.
HOME BUILDERS ASSOCIATION OF MEMPHIS-LADIES AUXILIARY OF MEMPHIS provides scholarships to technology students who show financial need. The recipients ere selected by the Division of Engineering Technology with
approval of such by the Ladies Auxiliary.
ASHLAND.WARREN SCHOLARSHIP provides e scholarship to a junior or sentor student mejoring in construction technology with priority being given to students taking courses in
bituminous products. Selection is based on need as well as bituminous products. Selection is based on need as well as academic ability Application may be made through the Division of Engineering Technology with final selection being mede by Ashland-Werren Company.

THE WHIRLPOOL MANUFACTURING TECHNOLOGY SCHOLARSHIP provides scholarships to junior and sanior students majoring in engineering technology with interast in metal products manufacturing
TENNESSEE ROAD BUILDERS ASSOCIATION providas four scholarships for students interested in following a transportation career and construction related to road building. Selection is made by tha Tannessee Road Buildars Association. THE MASONRY INSTITUTE OF TENNESSEE SCHOLARSHIP is awarded to a junior or sanior student with a caraer interest in the field of masonry, majoring in architectural echnology, construction technology, or structural engineering. who has earned at least a 2.0 cumulativa G.P.A.
NATALIA JACOBSON MEMORIAL SCHOLARSHIP providas scholarships to technology studants who show financial of Engineering Technology with approval of such by the Ladias Auxiliary
APAC TN SCHOLARSHIP FUND provides a scholarship to a junior or senior studant majoring in construction technology with priority being given to students taking courses in bituminous products. Selaction is basad on naad as wall as aca demic ability. Application may ba mada through tha Division of Engineering Tachnology with final selection being made by Ashland-Warren Company
THE WALLACE/BROOKS TECHNOLOGYSCHOLARSHIP is awarded to a student in the Dapartment of Engineering Tachnology

## SCHOOL OF NURSING

THE SHARON L. HANSARD MEMORIAL SCHOLARSHIP is awardad to a studant enrollad in MSU's School of Nursing. The applicant must ba of high moral character, dedicatad to service of othars, possess academic ability, and have a naed for financial assistance to attend MSU.
CITY OF MEMPHIS HOSPITALS SCHOLARSHIPS ara awardad to a junior or sanior enrolled at MSU in the clinical nursing coursas. Applicant must have a G.P.A. of 2.7 or above. nursing coursas. Applicant must have a G.P.A. of 2.7 or above.
Preferenca is given to employees of City of Memphis Hospitals. THE DEBRA ANN BOONE SCHOLARSHIP is awarded to a junior or senior majoring in nursing who has maintainad at least a 2.5 G.P.A
THE NURSING ALUMNI SCHOLARSHIP is dasigned to assist dasarving studants in pursuing a nursing career. The applicant must maintain a $3.0 \mathrm{G} . \mathrm{P} . \mathrm{A}$. or bettar.

## SPECIAL SCHOLARSHIPS

ARMED FORCES COMMUNICATIONS AND ELECTRON ICS (AFCEA) awards a scholarship to a sophomore AFROTC cadet for undargraduate study in a course relating to AFCEA's sphere of interest (electrical; elactronics or communications angineering; or technical photography). Tha winning cadat recaivas two chacks: ona for use in the junior year, ona for usa in the senior year. Inquiries should be diractad to the Department of Aerospace Studies.
AFROTC COLLEGE SCHOLARSHIPS covar full tuition, laboratory fees, incidantal faas, raimbursamant for textbooks, and $\$ 100$ par month in non-taxable pay for those anrolled in the Aerospace Studies program. Such scholarships may ba awarded for two, three, or four years and must ba appliad for during the school yaar procading their activation. Four-vear scholarships ara available only to those qualifiad to enter tha flying training.
ARMY ROTC SCHOLARSHIPS: For tha studant who dasiras to serve in the U.S. Army as an officar, the U.S. Army offers 4, 3, and 2 year scholarships. Thasa scnolarships pay for tuition, provida an allowance for books and incidental fees, plus pay up to $\$ 1,000$ a yaar for subsistence.
NAVY ROTC SCHOLARSHIPS: Navy ROTC offers scholarships which pay for tuition, textbooks, faas of an instructional nature and a subsistenca allowanca. Four-yaar NROTC scholarships are awarded annually basad on a competitiva selaction process in which consideration is given to such factors as high school record, college board scores, axtracurricular activities, and leadership qualitias. Highly qualifiad Navy-option alternate salactaas not offarad four-year scholarships due to limitad vacancies, will recaive guarantees of thraa-vaar scholarships commencing with their sophomore year contingant upon satisfying the following requirements as freshmen: (a) NROTC Collega Program anrollmant; (b) grade point average of 2.5 or bettar on a 4.0 scala; (c) positiva recommendation from tha NROTC unit commanding officar and (d) maintenance of physical qualifications required of NROTC scholarship studants. The Navy also has a two-yaar scholarship program available to students beginning thair junior year in collage.
THE JAKE FONDREN SCHOLARSHIP racipiant must ba a U.S. citizan, in good academic standing, damonstrata financial need, be an undergraduata studant, and axhibit a dafinita interest in golf.
THE MEMPHIS AMATEUR BOXING SCHOLARSHIP ASSOCIATION provides scholarships to full-tima studants who are mambars of this association. Tha purposa of this scolarship is to encourage academic achievement, to foster an interest in amateur boxing in the Memphis area, and to assist students who need help with educational expenses.
THE CHILD WELFARE SCHOLARSHIP is maintainad by tha Opportunity Foundation Corporation and tha State of Tennessee. Several scholarships are awarded to full time juniors nessee. Several scholarships are aw
and seniors majoring in social work.
THE AMERICAN SOCIETY OF WOMEN ACCOUNTANTS MEMPHIS CHAPTER awards a ona year, full in state tuition scholarship based on academics and need to a junior or senior majoring in accountancy
THE PROFESSIONAL SECRETARIES INTERNATIONAL MEMPHIS CHAPTER awards a scholarship to a graduating senior based on scholarship and desire to ba a secretary.

THE MEMPHIS LEGAL SECRETARIES ASSOCIATION SCHOLARSHIP provides a scholarship annually to junior or senior students majoring in Office Administration or Sacretarial Sciences and who intend to enter the legal secratary protession. The scholarship is awarded on the basis of scholastic ability and financial need.
THE MEMPHIS ADVERTISING FEDERATION ASSISTANTSHIP in Journalism is designad to encouraga young people with outstanding scholastic and journalistic abilty.
THE WILLIAM RANDOLPH HEARST FOUNDATION SCHOLARSHIP is awardad to an upperclassman majoring in journalism who intands to enter newspaper journalism.
THE TENNESSEE ASSOCIATION OF BROADCASTERS SCHOLARSHIPS provides one scholarship to the full-time junior or senior in the area of radio-talavision with the highest cumulative GPA for the pravious samaster
THE DOWNS PARENTS OF MEMPHIS SCHOLARSHIP is awardad to an outstanding junior majoring in spacial education. The studant must hava aarnad 56 hours but no more than 84 hours. Critaria: laadarship. service to the community, and scholarship.
THE DOCKERY-FAROS COACHING SCHOLARSHIP is awarded to a junior or senior Physical Education major who shows an intansa dasire to pursua a caraer in coaching and has damonstratad laadarship abilities through participation in the HPER dapartment.
THE CURTIS PERSON GOLF SCHOLARSHIP is awardad to a U.S. citizen in good academic standing, showing demona U.S. citizen in good academic standing, showing demonundargraduata studant and axhibiting an outstanding talent for golif.
THE COCKROFT LAUGHLIN BASEBALL SCHOLARSHIP is awarded to a student athlete who is nominatad by a chartarad Tennessee Fellowship of Christian Athletes Chapter, is a Tannassaa residant, and ba a mamber or prospective member of Mamphis State University's baseball team
THE MEMPHIS ADVERTISING FEDERATION ASSISTANTSHIP in Journalism is designed to encourage young paopla with outstanding scholastic and journalistic ability.
THE MSU RACQUETBALL SCHOLARSHIP is given to studants participating on the MSU Racquetball team. Recipients ara selactad on tha basis of athletic ability and leadership.
THE MSU HANDBALL SCHOLARSHIP is given to studants participating on tha MSU Handball taam. Racipients are selacted on tha basis of athlatic ability and leadership.
THE KATHERINE B. SEVED GE SCHOLARSHIP is presented to a senior who is a degree candidate in elementary education, a Shalby County resident, has demonstratad high acadamic achiavemant and naad, and plans to pursue the profession of teaching.
THE MSU RACQUETBALL SCHOLARSHIP is given to students participating on the MSU Racquatball team. Racipiants are selected on the basis of athlatic ability and laadarship.
THE MSU HANDBALL SCHOLARSHIP is given to students participating on tha MSU Handball team. Recipients are palactad on the basis of athletic ability and leadership.

## LOANS AND GRANTS

## SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT PROGRAM

The Supplemental Educational Opportunity Grant Program is a federally subsidized program whereby direct gift awards may be made to undergraduate students with exceptional financial need. Normally, Educational Grants are awarded as a part of a financial package since the amount a student may receive cannot exceed onehalf of the established need. Students applying for Educational Grants must demonstrate academic or creative promise; the stipend may range from $\$ 200$ to $\$ 1000$ based on the student's established need.

## NATIONAL DIRECT STUDENT LOAN PROGRAM

The National Defense Education Act of 1958 provided funds to institutions of higher education for the purpose of making low-interest, long term educational loans available to students who demonstrate academic promise and who have a need for financial assistance. These loans bear no interest until six months after a student graduates or
interrupts the course of study; the interest rate is five per cent of the unpaid balance with a maximum repayment period of ten years. Repayment may be deferred for service in the Peace Corps, Vista, or the Armed Services.

## FREEMAN LOAN SCHOLARSHIP PROGRAM

The Freeman Loan Scholarship Program was established for the sole purpose of providing worthy/needy students scholarship loans to help pay a part of their educational costs when other financial assistance is not available. Eligibility for this low interest, long term loan program is based upon satisfactory academic progress and financial need. Applicants for this program must submit the ACT Family Financial Statement and other documents evidencing financial need.

## LOAN FUNDS

The University maintains a number of small loan funds for assisting students with emergency type loans. A listing of these loans is as follows:
THE AMERICAN ASSOCIATION OF UNIVERSITY WOMEN LOAN FUND OF $\$ 200$ administered by the Memphis branch of the AAUW is available to women students recommended by the University.
THE GENERAL EVERETT R. COOK ARNOLD AIR SOCIETY LOAN FUND was established to provide financial assistance in the form of short-term loans for students enrolled in the Professional Officer Course of the Air Force Reserve Officers Training Corps.
THE GENERAL UNIVERSITY LOAN FUND provides short-term, low interest loans up to $\$ 200$ for those students in emergency situations.
THE KAPPA LAMBDA SIGMA AND PHI LAMBDA DELTA LOAN FUND of $\$ 206$ was presented by the Kappa Lambda Sigma sorority and the Phi Lambda Delta fraternity in memory of those members of Phi Lambda Delta who died in World War II.
THE DELTA OMICRON CHAPTER OF PHI DELTA KAPPA sponsors a loan fund of $\$ 500$, available in $\$ 125$ loans to full-time undergraduate seniors and full-time graduate students who are planning to be teachers.
TENNESSEE ASSOCIATION OF PUBLIC ACCOUNTANTS LOAN FUND was established to enable needy junior or senior students in the Department of Accountancy to remain in the University. Loans are non-interest as long as the student remains in the University.
THE GENERAL RALPH H. WOOTEN LOAN FUND was established for the purpose of providing low interest educational loans to students enrolled in the Air Force Reserve Officers Training Corps.
THE ZONTA CLUB OF MEMPHIS LOAN FUND of $\$ 250$ is available to eligible junior and senior women. Applicants names are submitted to a committee of the Zonta Club for approval and selection.

## REGISTRATION/EMERGENCY LOAN PROGRAM

The Registration/Emergency Loan Program was established for the purpose of providing one-time, low interest, shortterm educational loans to assist students who have educationally related emergency situations. Eligibility is based upon a 2.0 G.P.A., a semester of previous enrollment, and an absence of indebtedness to the University.

## THE TENNESSEE STUDENT ASSISTANCE AWARD PROGRAM

Students who are residents of the State of Tennessee may apply for a Tennessee Student Assistance Award. These grants are awarded to students for one-half of the amount of fees. In order to apply, a student must submit a financial statement to the following address: Tennessee Student Assistance Corporation, B-3 Capitol Towers, Suite 9, Nashville, Tennessee, 37219.
The ACT code number for the Tennessee Student Assistant Corporation is 4015. Applications for this grant may be obtained through the Student Aid Office or by writing the above address. Determination as to grant recipients is made by the Agency in Nashville.

## PELL GRANT

The Pell Grant is a non-repayable, federally funded, grant program for undergraduate students. The amount is determined by the financial eligibility of the student (family) and the cost of college attendance. Students must be admitted as regular undergraduates and be enrolled for at least 6 credit hours to be eligible. Applicants who sumit the ACT Family Financial Statement or Pell Grant Application may expect to receive a Student Aid Report (SAR) within four to six weeks. All three copies of the report should be sent to the Student Aid Office as soon as possible for processing at Memphis State University.

## OTHER LOAN PLANS

GUARANTEED STUDENT LOANS (GSL) are low-interest loans made available to the student through a lender such as a bank or credit union. The loan is insured by a guarantee agency and also by the federal government. Undergraduate students may borrow up to $\$ 2,500$ per academic year while graduate students are eligible to borrow up to $\$ 5,000$ per year. Payment is deferred until 6 months after the student ceases to carry a halftime load. All borrowers must complete a needs test and show financial need to be eligible for the loan. Numerous lender applications and the supplemental application form are available at the Student Aid Office.
THE TEACHER LOAN SCHOLARSHIP PROGRAM provides that students who have been admitted to or enrolled in any accredited university in Tennessee, and are committed to teaching in the Tennessee public schools may be eligible for up to $\$ 1,500$ per academic year for up to four years. The program is designed to be awarded as a loan, but as trained teachers fulfill their commitment to teach in Tennessee, the loan will be forgiven or turned into a scholarship on a year-foryear basis. In other words, a teacher teaching for four years in a public school in math or science will have all of the loan
cancelled. Applications for and information about the program may be obtained from the Tennessee Student Assistance Corporation, the MSU College of Education or the Student Aid Office.
PLUS LOANS are meant to provide additional funds for educational expenses. Like Guaranteed Student Loans, they are made by a lender such as a bank, credit union, or savings and loan association. Graduate students and the parents of dependent undergraduate students may borrow up to $\$ 3000$ per year. Independent undergraduate students may borrow up to a total of $\$ 2,500$ under both the GSL and PLUS Programs. Payments for interest and/or principal begin within 60 days of the disbursement. Contact the Student Aid Office for information and supplemental application forms.

## SATISFACTORY PROGRESS POLICY

All students who receive financial aid must be working toward a degree and comply with all institutional, state, and federal policies and standards applying to financial aid programs. In order to assure that student aid recipients make progress toward that degree, both in terms of the number of hours completed and the cumulative GPA, Memphis State University will utilize the following Satisfactory Progress Policy.

## Progress Standards

1. Course Completion Progress: Students must, as a minimum, complete the requirements of $75 \%$ of the cumu lative hours for which they receive financial aid payment.
2. Cumulative Progress: Students, in addition to the above, must meet the academic retention standards of Memphis State University.
3. Term Progress: Any student who has a GPA of 0.0 for any term will be placed on Financial Aid Probation.
4. Withdrawal: Any student who withdraws will be placed on Financial Aid Probation.
5. Transfer Students: Transfer students must complete 75\% of the course requirements for which they received financial aid payment during their last term of enrollment, or they must have met the requirements of satisfactory financial aid progress at the previous institution.

## Financial Aid Probation

1. Students will be placed on Financial Aid Probation for their next term of enrollment if they fail to meet any standard as outlined above for any term.
2. A student who is placed on academic probation is automatically on Financial Aid Probation.

## Removal from Probation

A student will be removed from Financial Aid Probation the end of the probation term if he/she satisfactorily completes the term and meets the requirements of Progress Standards.

## Removal from Financial Aid

1. A student on Financial Aid Probation who fails to meet the standards of progress in the probation term of enrollmen will not be able to receive additional financial aid until such time as he/she meets the standards for removel from Financial Aid Probetion
2. Any student who has a GPA of $O . O$ for the second time will be removed from financial aid for one term of enrollment.
3. Any student who withdr aws for the second time from the University will be removed from financial aid. A third withdrawal will result in the student's being permanently removed from financial aid.

## Administrative Appeals

Students placed on Financial Aid Probation or removed from financial aid can appeal that decision to the Director of Student Aid. The appeal must be prepared in writing and be accompanied by appropriate support documents. If not satisfied with the decision of the Director, any student cen take the appeel to the Associate Dean for Student Development. Any subsequent appeal may be made to the Vice President for Student Educational Services and the President of Memphis State University. Reasons that may be accepteble for the eppeal are:

Serious illness or accident to the student. This will normally require a medical statement from a physicien.
2. Death, serious illness, or injury in the immediate family (parent, children, spouse). A physician's statement or appropriate death certificate will be required.
3. Administrative errors by Memphis State University

4 Other extenuating circumstances may be acceptable and will be considered.

## Policies and Conditions of Student Aid Awards

All awards are subject to the following conditions:

1. The Student Aid Office reserves the right to review/ cancel awards due to changes in financial circumstances academic standing, enrollment status. program status failure to observe standards of citizenship and failure to meet the requirements of satisfactory academic progress
2. All awards are tentative, subject to:
a. Legislative approprtation and recelpt of funds by Memphis State University
b. Student's full-time enrollment (except in cases of Pell Grant Awards) in a regular degree program: 12 hours per semester for undergraduates and 9 hours per semester for graduate and law.
c. Student's meeting and maıntaıning federal, state and institutional program requirements.
d. Student's notification of the Student Aid Office if outside loans or scholarships are received
3. Alumni Scholarship recipients must maintain a 3.0 overall GPA. State Board Scholarship recipients must maintain a 2.8 overall GPA and must follow guidelines given at the time of registration
4. Students receiving financial aid who withdraw or drop below full-time enrollment from the University must notify the Student Aid Office.
5. All awards \{loans, scholarships and grants) administered by the University are subject to the University's Refund Policy and the Student Aid Refund/Repayment Policy.
6. Coliege Work Study awards do not pay tuition/dorm fees College Work Study is a part-time job; students should not expect to study during work hours. Students should report to the Student Aid Office the week before registration or during registration for job placement. Students must enroll full-time and maintain full-time enrollment status.
7. Students receiving loans are required to attend an initial interview according to instructions given prior to registration. All loan recipients must have an exit interview prior to leaving the University
8. All award recipients (scholarships, loans, grants, and College Work Study) must reapply by April 1 of each year is the student's responsibility to secure and complet the appropriate application materials
9. Loan, grant and scholarship awards are disbursed in onehalf amounts at the Grant and Loan Station in the Registration Center during EACH registration, fall and spring. Remember, College Work Study is NOT disbursed to aid in payment of initial semester fees.
10. Students who receive grants. loans and scholarships and fail to enroll for the required number of hours will be subject to penalty and in some circumstances subject to criminal prosecution.

## Student Aid Refund Repayment Policy

The formula prescribing the a mount of Title IV funds to be refunded to Title IV accounts has been established by federal regulations. The policy is: Title IV funds disbursed for the payment period (excluding CWSP)/Total aid disbursed including Title IV funds but excluding CWSP X MSU. Federal regulations stipulate that each institution shall develop written policies to determine which Title IV Program(s) will receive the refund or repayment.

## REFUND:

1. When a refund is due a student and Title IV funds are involved and the financial aid awarded is equal to or in excess of the amount of the student's full tuition/maintenance fees, the Student Aıd Office will deter mine according to the federal ormula the portion of federal aid funds to be returned to the federal aid account. The refund amount will be placed in the respective aid account(s) in the same proportion as the eid awarded.
2. When a refund is due a student and Title IV funds are involved and the financial aid awarded is less than the amount of the tuition/maintenance fees paid by the student. the Student Aid Office will determine what portion of the refund should be returned to the student based upon the following formula. Amount of tuition/maintenance fees paid divided by the total amount of tuition/maintenance fees tımes the MSU computed refund equals the amount returned to the student Theremainder of the refund will then be distributed according the required federal formula and the procedures outlined in 1 above.
3. Refunds applicable to non-Title IV funds will be distributed to the respective aid account in the same proportion as the aid awarded
4 A $100 \%$ refund will be given in the event of death.

## REPAYMENT:

When a student receives financial aid and one of the following situations occur: (a) the student is issued a confingency fee card which is not honored by the fund agency involved, (b) the student receives an overpayment due to noneligibility or administrative error: (c) the student withdraws prior to the start of classes or fails to pay tuition/maintenance fees: the student must repay the total amount of aid received or overpaid

## STUDENT EMPLOYMENT

There are many employment opportunities available through the University. The University operates two programs of student employment on campus; the College Work-Study Program and the Regular Student Employment Program. Students seeking employment should contact the University Student Employ-
ment Office. Applications for regular employment may be filed at any time during the year. To apply for College Work-Study Programs, students must file the ACT Family Financial Statement, Pel Grant Application, and show financia need. The Tennessee Department of Employment Security maintains an office on campus for assisting students with off-campus employment.


# 4. STUDENT ACTIVITIES, SERVICES, HONORS AND AWARDS 

## STUDENT DEVELOPMENT

The quality of Memphis State is reflected not only in the content of its academic programs but also in the array of activities and services provided for its students. At MSU, satisfying the individual needs of students has become an everincreasing commitment, regardless of whether those needs are personal, academic, psychological or social.

The University strives to make student life fulfilling in an environment conducive to academic growth. The range of support services provided include counseling, skills training, tutoring, health care, and job placement, to name only a few.

## THE CENTER FOR STUDENT DEVELOPMENT

The Center for Student Development is a comprehensive counseling and assistance facility providing personal/psychological, academic, and career resources for students to draw upon as they confront the developmental tasks concomitant with their educational experience. The Center for Student Development encompasses a variety of free counseling and helping activities through its various components.

## Personal/Psychological Counseling

The personal/psychological counseling component provides students with the opportunity to discuss and explore, in confidence, any concerns and feelings that are of importance to them. Problems in interpersonal relationships, feelings of loneliness or inadequacy, family or marriage difficulties, depression, the inability to concentrate or study, or simply "feeling the need to talk things out" are all examples of concerns which are dealt with through personal counseling. The staff is professionally trained and experienced in working with a wide variety of student concerns through individual and group counseling, testing, programs and workshops, and referral to additional service centers on and off campus.

## Academic Counseling

All freshmen, transfer, and readmitted students who have not decided upon an academic major are assigned to an academic counselor. The purpose is to provide academic counseling which will prepare students for enrollment in one of the degree-granting units once they have chosen a major. The counselors are available to discuss the many academic
programs offered and to help the students explore these possibilities as they relate to their personal and educational goals.

## Career Counseling

Career Counseling affords students an opportunity to explore career options, obtain information relating academic majors to career choices, evaluate employment outlook information, and develop realistic career goals. Through testing, counseling, and group discussion, each person is given the opportunity to make a well-considered career choice.

## The Testing Center

The Testing Center provides testing services for university and professional school admissions purposes as well as for licensure and certification in a variety of professional areas.

## Educational Support Program

The Educational Support Program provides free tutorial programs in reading, English composition, mathematics, foreign language, and learning skills. Private tutors for specific courses are also available. Individual and group consultation, as well as audio-visual and programmed instruction, are available.

## HANDICAPPED STUDENT SERVICES

The Handicapped Student Services program provides information and specialized support services that enable disabled students to take full advantage of the educational opportunities at Memphis State. Services include preadmission planning; preferential scheduling; coordination of modified housing accommodations; attendant referral; arranging readers, tutors, notetakers, interpreters; assistance in securing special materials, equipment and adaptive aids; assistance with wheelchair maintenance; shuttle service; and liaison with state rehabilitation agencies.
All persons who have a disability or a handicap are encouraged to register with the Handicapped Student Service Office at the time application is made to the University. This registration entitles a student to the legal rights accorded to people with disabilities and makes it possible to receive helpful assistance with pre-enrollment planning. Applicants should contact the Director of Handicapped Student Services for more specific information.

## UNIVERSITY HEALTH CENTER

Location and Hours: The University maintains a health center on the main campus. The University Health Center is open Monday through Friday, 8:00 A.M. to $4: 30$ P.M. Major emphasis is on the diagnosis and trealment of short-term acute, episodic medical illness on an outpatient basis.

Eligibility for Care: Students will be given priority for services; however, medical services are available to faculty and staff members. Although services are free of charge, each visit requires that the individual present a validated identification card before treatment, except in cases of emergency.

Services: The Center is staffed by physicians, nurse practitioner, registered nurses, medical and $x$-ray technologist, and various administrative support personnel. Specialty clinics include: nutrition, dermatology, family planning, and optometry. In addition, the Center will administer immunizations, loan crutches and wheelchairs, verify disabilities, and authorize Handicapped Parking decals.
Health Insurance: The University has authorized and approved a private insurance company to provide coverage, which the student pays for directly. Details pertaining to this insurance are available at the time of registration and from the Center.

## UNIVERSITY PLACEMENT

Placement services are provided to graduating seniors and alumni. Services include personal data files, on campus interviewing, employment listings, and information library and workshops. Advance registration is required and should be completed two semesters before graduation.

Placement services are also available in the Teacher Placement Office for students in teacher education and for alumni seeking teaching positions.

Part-time positions are handled by a branch office of the Tennessee Employment Security Office, where students may find temporary employment.

## VETERANS SERVICES

The Office of Veterans Services provides assistance for eligible veterans and/or dependents who enroll at Memphis State University and who make application for: (1) Programs of Education or Training, (2) VA Tutorial Services, (3) VA Workstudy Positions, or (4) VA Educational Loans.

Other assistance includes: liaison with Veterans Administration Regional Office, counseling, and counseling referral for personal, family, career, financial, and educational problems.

Anyone who will be using VA educational assistance (G.I. Bill Benefits) while enrolled at Memphis State University should contact the Office of Veterans Services. They should also be prepared to furnish the following items as applicable:

1. DD214 (or other armed forces separation papers), original or copy, which has been certified by a Federal VA employee.
2. Copy of Delayed Enlistment Contract.
3. Copies of children's birth certificates.
4. Copy of divorce decree if either vet or spouse has been previously married.
5. VA file number if benefits have been used previously.
6. Transcripts from any prior schools attended.

Advance payment is available for eligible veterans and dependents who plan to enroll on at least a half-time basis. Applications will be accepted in the Veterans Services Office as early as 120 days before the term begins but no later than 45 days prior to the beginning of the term of entry. Generally, the advance pay deadline for the fall semester is around July 15 , while spring semester deadline is around November 15. Advance pay checks include an allowance for the month or fraction thereof in which the course begins and the allowance for the following month.

Advance pay checks are mailed to the school for delivery to the student at registration. Initial applicants who do not apply for advance pay may expect their check to be mailed to their home within four to eight weeks after registration.

For VA benefits, generally 12 semester hours constitute a full-time load for undergraduate students; 9 hours is fulltime for graduate students. The Veterans Administration places restrictions on those who receive veterans educational benefits. Some of these restrictions are: (1) regular class attendance, (2) satisfactory academic progress, and (3) adherence to a specific degree plan.

Only courses that are required for the degree and major may be certified for VA pay. VA will not pay for repeat courses if the grade already earned is accepted by MSU and will fulfill graduation requirements toward the declared degree and major (even if the course was taken at another institution with or without use of the G.I. Bill). VA will not pay for elective courses in excess of those needed to meet graduation requirements.

## STUDENT LIFE

Student Life is one of the many components of the University community that offers students a wide variety of learning experiences outside the formal classroom setting. Included in the area of Student Life are: Student Government, Greek Activities, Student Organizations, Religious Affairs, and Student Activities Council, as well as other activities. More information may be obtained from the Office of the Associate Dean for Student Life.

## Student Government

The Student Government Association represents student opinion in working with other University components. Students may serve in the executive, legislative, or judicial branches or on committee.

## Student Conduct and Disciplinary Proceedings

It is assumed that applicants for admission to Memphis State University are mature adults, and every consideration will be shown them as such until, by their own acts, they forfeit the confidence reposed in them. Rules of government and regulations in regard to general conduct are, of course, necessary. The rules and regulations at Memphis State University are of such nature as to secure ready cooperation on the part of students in making them effective. These rules and regulations are outlined in the Student Handbook, distributed to all students at the time of initial registration, and every student is required to be knowledgeable of the Code of Conduct and Disciplinary Proceedings and adhere to the stated regulations.

## Religious Affairs

Several religious organizations maintain meeting facilities close to campus or meet in University facilities. These organizations provide activities adapted to the needs of University students and are designed to aid in the continuing religious growth and development of members of the University community. The organized religious groups include: the Baptist Student Union, Barth House (Episcopal Student Center), Campus Crusade for Christ, Catholic Student Center, Christian Science Organization, Christian Student Center (Church of Christ), Inter-Faith Council, Jewish Student Union, Latter Day Saint Student Association (Mormon), Muslim Student Association, Navigators, United Students for Christ, Wesley Foundation (United Methodist), and Westminister House (Presbyterian).

## Social Fraternities and Sororities

Fourteen national fraternities and twelve national sororities are active on the Memphis State campus. The Univer-
sity strives to maintain a strong Greek system through coordination of Greek activities provided by the Office of Student Organizations and Greek Affairs.
Fraternities: Alpha Phi Alpha, Kappa Alpha, Kappa Alpha Psi, Kappa Sigma, Lambda Chi Alpha, Omega Psi Phi, Phi Beta Sigma, Phi Gamma Delta, Phi Sigma Kappa, Pi Kappa Alpha, Pi Kappa Phi, Sigma Alpha Epsilon, Sigma Chi, and Sigma Phi Epsilon.
Sororities: Alpha Chi Omega, Alpha Gamma Delta, Alpha Delta Pi, Alpha Kappa Alpha, Delta Gamma, Delta Sigma Theta, Delta Zeta, Phi Mu, Pi Beta Phi, Sigma Gamma Rho, Sigma Kappa, and Zeta Phi Beta.

## University Center

The University Center is the focal point for activities and events for the University community. Along with its many programs and activities, the Center provides many conveniences such as food service, automatic banking, bookstore, sign shop, ticket office, gameroom, rental lockers, television room, stereo-listening rooms, vending, copy machine, public phones, and central scheduling and information area. The Center is an organization with programs designed to encourage students and other members of the community to meet and share interests and talents in an action-learning setting.

## Student Activities Council

Student Activities Council is the principal programming body for the University community. It is composed of students selected and appointed for the purpose of providing social, cultural, recreational and educational activities, and events that appeal to all tastes. Talent shows, Miss Memphis State, lectures, movies, speakers, and tours are just a few of the many activities planned and facilitated by Student Activities Council.

## Athletic Programs

The University sponsors men's and women's intercollegiate athletic programs. Policies for intercollegiate athletics are set by the University Committee on Athletics. Memphis State University is a member of the Metro Conference, noted nationally for its basketball strength. Both the Tigers and Lady Tigers have compiled fine records in all sports.

The intercollegiate program sponsors teams in baseball, basketball, football, golf, gymnastics, soccer, tennis, track, and volleyball. These teams compete in a regular schedule with teams from other recognized institutions of the same scholastic level as Memphis State University.

## Intramurals and Recreation Services

As a division within the Department of Health, Physical Education and Recreation, the intramural and recreation program is designed to fulfill a vital educa-
tional function and provide students, faculty and other members of the University community the opportunity to participate in a variety of activities for personal enjoyment and satisfaction.

The H.P.E.R. Complex provides excellent facilties for instructional, intramural and sports programs. The sports activities including individual and group, range over approximately 30 different sports. The Division supervises recreational use of the H.P.E.R. Complex; provides for the loan and rental of sports and camping equipment; provides for the reservation of tennis courts, racquetball-handball courts and other play areas; organizes intramural tournaments; sponsors leisure course series, clinics and events; and coordinates a sports club/activity program. The student oriented Intramural and Recreation staff gives personal attention to the needs of individual students, faculty and staff.

## OTHER ACTIVITIES AND SERVICES

## Publications

Students write and edit The Helmsman, the University newspaper (4 issues per week); and the DeSoto, the University yearbook, under the auspices of the Department of Journalism.

The Memphis State Review, a nationally recognized literary review, combines the work of established poets and fiction writers with the work of Memphis State's most talented writers. Published in fall and spring, it is free to MSU students. The publication has a faculty editor and advisors aided by student assistant editors. Student submissions are encouraged but must be identified by student classification. The publication is coordinated by the Department of English.

## Bookstore

The University Bookstore is owned and operated by the University for the convenience of its students, faculty and staff. In addition to textbooks and supplies required or recommended for every course in the University, the Bookstore also stocks clothing, cosmetics, notions, physical education uniforms, stationery, rental typewriters, microcomputers, and gift items.

## Post Office

The University Post Office has post office boxes available for rent by students and faculty. Students living in University housing have post office boxes located in these facilities, charges for which are included in the residence hall rent. Student mail should be addressed to the proper post office box number, Memphis State University, Memphis, Tennessee 38152.

## Automobiles on Campus

Each person who expects to operate and park any motor vehicle on the campus of Memphis State University must register it in the Security Office and receive an official permit. Permits are valid from September through August. Limited parking space necessitates close regulation of traffic. Each student is responsible for being familiar with the campus traffic and parking regulations, copies of which are available in the Security Office.

## Art and Music

The Art Department sponsors visiting artists and lecturers, workshops and symposia. The University Gallery provides students and the community with a full exhibition schedule of contemporary and historical art, as well as permanent collections of African Art, Egyptian Art, contemporary prints, and other varied pieces.

The Department of Music offers activities and programs in which students may participate as individuals or as groups. Qualified students, regardless of major, may participate in the numerous musical groups including the University Symphony Orchestra, the University Bands, and a variety of choral groups and small instrumental ensembles. Additionally the University's state-of-the-art 24 track recording studios are open for student use after proper instruction.

## Theatre

Students are invited by the Theatre and Communication Arts Department to audition for roles in plays, a Lunch Box Experimental Theatre, Readers' Theatre, and an original script program.

## Communications

Programs in radio, television, and film are offered by the area of Communication Arts. WSMS-FM 92 is student operated. Two state-of-the-art television/film studios also offer students the opportunity to participate in broadcasting quality productions.

## Goodwyn Institute Lectures

A series of free lectures and addresses, covering a wide variety of subjects, are offered by the Goodwyn Institute. The aim of the Institute is to offer to the citizens of Memphis and the University authoritative and accurate information on all kinds of practical and cultural subjects.

HONORS AND AWARDS

## HONOR SOCIETIES

Alpha Epsilon Delta, international premedical honor society
Alpha Kappa Delta, the national honorary society in sociology

Alpha Lambda Delta, a national honor society for freshman students
Beta Beta Beta, national honor society in biology
Beta Gamma Sigma, the national honor society for business majors
Chi Beta Phi, a national science and mathematics honorary society
Dobro Slovo, an honor society organized to further the study of Slavic literature
Gamma Beta Phi, an honor and service society
Honors Students Association, an organization for University Honors students
Gamma Theta Upsilon, a national honorary society for geography students
Golden Key National Honor Society, a national interdisciptinary honor society for academically outstanding juniors and seniors
Kappa Delta Pi, a national honor society in education
Kappa Omicron Phi, a national honor society for home economics students
Kappa Tau Alpha, a national honor society for journalism and mass communications juniors and seniors
Liberal Arts Honor Society, a local academic honor association founded by Phi Beta Kappa faculty members
Mortar Board, a national honor society established to provide for cooperation among honor societies for senior women Omicron Delta Epsilon, an international economic honor society
Omicron Delta Kappa, the National Leadership and Scholarship Honor Society Phi Alpha Theta, the national honor society in history.
PhiEta Sigma, a national freshman honor society
PhiKappa Phi, a national interdisciplinary honor society
Pi Delta Pi, a society to recognize outstanding scholarship in French language and literature
Pi Kappa Lambda, a national honorary society for music education students
Pi Sigma Alpha, the national honor society in political science
Pi Tau Sigma, the national honor society in mechanical engineering
Psi Chi, the national honor society in psychology
Sigma Delta Pi, the national Spanish honor society
Sigma Pi Sigma, a national honor society for physics students
Sigma Tau Delta, a national honor society for English language and literature students
Tau Alpha Pi, a national honor society for engineering technology students
Tau Beta Pi, a national engineering academic honor society
Who's Who Among Students in American Universities and Colleges, one of the highest honors that a student may receive at Memphis State University

## Honors and Awards <br> the college of arts and Sciences

THE BETA BETA BETA AWARO is annually prasented to the graduating senior and mambar of tha Sociaty who graduatas with tha highast grade point avaraga in biology
THE AMERICAN INSTITUTE OF CHEMISTRY AWARO is prasantad to tha graduating chamistry major who bast damonstratas laadership, ability, charactar and scholastic ability.
THE OEPARTMENT OF ENGLISH offers sevaral ewards:
a The Distinguished Scholarship Award presented each year to the English major whose work demonstrates an unusually high order of academic excellence.
b. Honors Thesis Award presented in recognition of the outstanding honors thesis submitted during the previous academic year by a student in the English Honors Program. c. Freshman Writing Awards: Prasented for creative excellence shown by frashman writers of essays, poetry, and fiction.
FRENCH GOVERNMENT ASSISTANTSHIPS: The French Government through the French Embassy in The United States, on the recommendation of the French Section of the
Depertment of Foreign Languages, awards each year one or more assistantships in France for the teaching of English in secondary schools
OEPARTMENT OF GEOGRAPHY presents each year the Paul H. Sisco Award to the outstanding senior geography mejor
THE OEPARTMENT OF HISTORY annually presents the Tennessee Historical Commission Award to that senior student of history judged by the faculty to be the outstanding history major.
THE OEPARTMENT OF MATHEMATICAL SCIENCES annually presents the R. P Clark Memorial Award to an outstanding junior.
THE OEPARTMENT OF PHILOSOPHY OUTSTANDING STUOENT AWARO is presented to that student of philosophy chosen on the basis of high scholastic achievement, papers written, and performance in senior honors seminars.
THE OEPARTMENT OF POLITICAL SCIENCE presents the Outstanding Student Award each year to the graduating senior majoring in political science who has compiled tha best record of academic achievement in the discipline.
THE DEPARTMENT OF PSYCHOLOGY sponsors the Undergraduate Research Festival Awards based on fine papers, each reporting on a research project criginated and conducted by an undergraduate student in psychology.
THE DEPARTMENT OF SOCIOLOGY annually presents The Outstanding Student Award to the senior student judged to be the outstanding sociology major. Also, the DIVISION OF
SOCIAL WORK presents the Graduate with Distinction Award SOCIAL WORK presents the Graduate with Distinction Award
to the graduate who has been selected for dedication, achieveto the graduate who has been selected for ded
ment, and potential for professional service.
ALPHA EPSILON OELTA, pre-medicine and allied health professions honor society, annually presents the Student of the Year Award to the member who has demonstrated outstanding leadership, loyalty and responsibility.
CHI BETA PHI SCIENCE AWAROS: The student who has attained the highest academic average during his four years of study in each of the following disciplines: Biology, Chemistry, honored by having his/her name inscribed on a plaque.

## the fogelman college of BUSINESS AND ECONOMICS

THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS AWARO, Memphis Chapter, is presented ennually to the graduating student who has the highest overall scholastic average among all accountancy majors.
THE MEMPHIS CHAPTER OF THE SOCIETY OF CHARTERED PROPERTY CASUALTY UNOERWRITERS annually awards a check and a plaque to the outstanding student in the field of insurance.
SOCIETY FOR AOVANCEMENT OF MANAGEMENT SCHOLARSHIP is annually awarded to that member of SAM who has served the society in an exemplary manner and demonstral.
THE NATIONAL BUSINESS EOUCATION ASSOCIATION ennually awards a certificate of merit, a one-year subscription to the N.B.E.A Forum magazine, and a one-year membership card in the Association to the outstanding gradueting senior who has majored in the field of business education.
PHIGAMMA NU, professional sorority in business, each year presents a scholarship key to the woman business graduate who has maintained the highest scholastic average in The Fogelman College of Business and Economics.
OELTA SIGMA PI, international business frater nity, annually awards a scholarship key to the man in The Fogelman College of Business and Economics graduating with the highest academic average in business.

## THE COLLEGE OF COMMUNICATION AND FINE ARTS

OEAN'S ACADEMIC ACHIEVEMENT AWARD is available to a student majoring in a discipline within the College of Communication and Fine Arts. It recognizes the gradueting student with the highest grade point average.
OEAN'S CREATIVE ACHIEVEMENT AWARO is besed on outstending creetive activity in the areas encompassed by the College of Communication and Fine Arts.

SIGMA DELTA CHI CITATION, Memphis Chapter, annually SIGMA DELTA CHI CITATION, Memphis Chapter, annually outstanding in the fiald of journalism
SOCIETY OF PROFESSIONAL JOURNALISTS, SIGMA DELTA CHI MARK OF EXCELLENCE AWARDS, Arkansas, Louisiana, Mississippi, Wast Tennassee Ragion, annually prasants first placa awards for Bast TV Broadcasting. Best Editoriel Cartoon, Bast Faatura Article, and Bast Photography Faatura.
SIGMA ALPHA IOTA COLLEGE HONOR AWARD annually ganaral contribution to tha Collegiate Chapter.
SIGMA ALPHA IOTA HONOR CERTIFICATE is presented annually to the music major graduating with the highest academic average.
Pacademic average. PAUL EAHEART MEMPHIS WOODWIND QUINTET
SCHOLARSHIP is presented in honor of Paul Eaheart for excellence in wind performance.
NAOMI C. HAIMS OHN AWARDS IN CLASSICAL MUSIC COMPOSITION are presented annually to the graduate student and the undergraduate student who are judged to have written the best compositions for that year.
HERMANN PIANO AWARO is presented annually in memory of Professor Herbert Hermann for excellence in piano performance.
LUBRANI CLARINET AWARD, in memory of Professor Fraderic Lubrani, is presented for performance ability. gener al scholarship, service to the Music Department, and potential in the profession.
SMIT COMPOSITION AWARO is presented in memory of Professor Johannes Smit for excellence in composition.
HEARST AWAROS are presented as the result of an annual national writing and photography competition among accredited journalism programs for work appearing in student
publications. Cash prizes range from $\$ 200$ to $\$ 2,000$ with matching awards going to sponsoring journalism departments.

## THE COLLEGE OF EDUCATION

THE OEPARTMENT OF DISTRIBUTIVE EOUCATION OUTSTANOING SENIOR AWARD is presented each year to the graduating senior in the department with the highest DECA SERVICE AWARO is presented annually to the senior majoring in distributive education who has made the most ELEANOR MAE FERGUSON AWARD is presented each year to the outstanding junior or senior woman physical education major who displays strong leadership, outstanding
character, high scholarship and an active role in departmental character, high scholar
and campus activities.
RALPH HATLEY, SR. AWARD is presented to the outstanding junior or senior male physical education major who displays strong leadership, outstanding character, high scholarship and an active role in departmental and campus activities. THE OEPARTMENT OF HEALTH, PHYSICAL EOUCATION ANO RECREATION OUTSTANDING SENIOR IN RECREATION AND PARKS AWARD is presented annually in
recognition of meritorious scholarship, leadership and service recognition of meritorious scholarship, leadership and
to the University, the community and the profession.
THE OEPARTMENT OF HEALTH, PHYSICALEDUCATION ANO RECREATION OUTSTANOING GRAOUATE STUOENT IN RECREATION AND PARKS AWARO is presented annually in recognition of meritorious scholarship, leadership and service to the University, the community and the profession.
THE OEPARTMENT OF HEALTH, PHYSICAL EOUCATION ANO RECREATION HEALTH EDUCATION HONOR AWARO is presented annually to the undergraduate health education major with the highest overall grade point average. THE OEPARTMENT OF SPECIAL EOUCATION OUTSTANOING SENIOR AWARD is presented annually to an outstanding senior majoring in special education and rehabilitation who displays strong leadership, outstanding
character, scholarship and an active role in departmental and character, scholars
campus activities
THE KAPPA OELTA PI JUNIOR ACADEMIC ACHIEVEMENT AWAR O is presented annually to the junior having the highest grade point average.
THE KAPPA OELTA PI SENIOR ACAOEMIC ACHIEVEMENT AWARO is presented annually to the senior having the highest grade point average
THE OEPARTMENT OF HOME ECONOMICS ANO DISTRIBUTIVE EDUCATION KAPPA OMICRON PHI AW ARD is presented to a junior or senior member of the Kappa
Omicron Phi in recognition of leadership, scholarship and service.
THE MARQUITA L. IRLANO SCHOLARS AWARD is presented annually to a spring graduate with outstanding presented annually to a spring grions in the areas of leadership, service to the contributions in the areas of leadership, service to the community
THE MEMPHIS EOUCATION ASSOCIATION AWARO is presented each year to the graduating senior who, having graduated from the Memphis City Schools System and completed all college level work in a teacher education program at the University, has attained the highest grade point average of the students in this category.
THE HEBER E. RUMBLE OUTSTANDING STUOENT whose performance in student teaching is judged to be the most outstanding.
THE OEPARTMENT OF CURRICULUM ANO INSTRUCTION OUTSTANDING EARLY CHILDHOOO MAJOR AWARO is presented ennually to the early childhood education ment in professional organizations, end professional potential.

THE DEPARTMENT OF CURRICULUM AND INSTRUC TION OUTSTANDING ELEMENTARY EDUCATION MAJOR AWARO is prasentad annually to tha alamantary education major who has damonstratad outstending scholar ship, involvemant in professional organizations, and profas sional potential.
THE OEPARTMENT OF CURRICULUM AND INSTRUC TION OUTSTANDING SECONDARY EDUCATION MAJOR AWARD is presented annually to tha sacondary aducation major who has demonstrated outstanding scholarship, involve ment in professional organizations, and profassional potential THE DEPARTMENT OF CURRICULUM ANO INSTRUC-
TION OUTSTANDING MASTER'S OEGREE CANOIOATE TION OUTSTANDING MASTER'S OEGREE CANOIOATE AWARD is presented to the master's candidata who has demonstrated outstanding scholarship, involvement in professional organızatıons, and professional integrity.
THE OEPARTMENT OF FOUNOATIONS OF EDUCATION OUTSTANOING GRAOUATE STUDENT AWARO is presented annually to the most outstanding student anrolled in the department on the basis of scholarship, accomplished or planned research, teaching competency or professional involvement, and faculty rating.
THE DEAN'S AWARD is presented annually on the basis of scholarship, professionalism, leadership, and service to the College of Education, the University, and/or professional organizations

## THE HERFF COLLEGE <br> OF ENGINEERING

OUTSTANOING SENIOR AWARDS in the College of Engineering are presented to the outstanding senior in each of the four departments: Civil Enginearing, Electrical Engineering, on scholarship
OUTSTANOING STUOENT MEMBER OF IEEE is presented an award by The Institute of Electrical and Electronics Engineers, student chapter
ENGINEERING TECHNOLOGY SOCIETY AWARO is annually presented to the outstanding student by the student chapter.
AMERICAN INSTITUTE OF ARCHITECTS presents annually the outstanding achievement award.
ASSOCIATEO GENERAL CONTRACTORS AWARD is presented annually by the student chapter for outstanding achievement.
FREO H. KELLOGG AWARD is presented annually to the outstanding student in civil engineering
ASHRAE AWARD is presented annually to the outstanding junior in mechanical engineering.
ENGINEERING DEAN'S AWARO is prasentad annually to the graduating student who has compiled the highest academic achievement in the college.

## SCHOOL OF NURSING

HIGHEST ACADEMIC ACHIEVEMENT AWARO is presented annually by the Memphis State University Nursing Alumni Association to the graduating senior in nursing who has the highest overall scholastic average.
OUTSTANDING STUDENT AWARO is presented annually
to the graduating senior in nursing who best demonstrates academic achievement, leadership and professionalism.
THE ALL STATE AWAR O is awarded by the West Tennessee League for Nursing to a student enrolled in a NLN accredite nursing program in the State of Tennessee.

## UNIVERSITY COLLEGE

DISTINGUISHED SPECIAL PROJECT AWARO is presented to each student whose special project has been judged outstanding by the Faculty Council of University College ALUMNI ASSOCIATION AWARO is given each semester to ALUMNIASSOCIATION AWARO is giveneach semester to
the graduate who has received the highest grade point the graduate who has received the
average in his or her coordinated study.
average in his or her coordinated study.
FACULTY COUNCIL AWARO is presented to the graduating senior, each commencement, who has earned the highest overall grade point average.
EOWARO A. HAMILTON FIRE FIGHTER SCHOLARSHIP is presented to the fire fighter, or fire fighter's dependent, who is a deserving student in need of financial assistance.

## DEPARTMENT

## OF AEROSPACE STUDIES

LEGION OF VALOR BRONZE CROSS OF ACHIEVEMENT recognizes one outstanding Air Force ROTC senior cadet in the Ohio Valley for performance and achievements as an AFROTC cadet
THE PRESIDENT'S AWARD IS PRESENTEO annuelly to the MSU Freshman or Sophomore AFROTC cadet who has demonstrated outstanding attributes of leadership end high moral character. Selection is made by AFROTC with final approval by the University President
ANGEL OF THE YEAR AWARO is presented to the member of Angel Flight who has given the most in service to the campus and the community
ARNOLD OF THE YEAR AWARO is presented to the member of Arnold Air Society who has given the most in service to the campus and the community.
ARMED FORCES COMMUNICATION ANO ELECTRONICS ASSOCIATION AWARD recognizas an outstanding senior AFROTC cadet completing a degree in electronics, computer systems technology, who demonstrates outstending leadership and academic achievemant.

DEPARTMENT OF MILITARY SCIENCE DEPARTMENT OF THE ARMY SUPERIOR CADET DECDRATION AWARD is presented annually to the out standing ROTC cadet in each year of military science based on demonstrated officer potential.<br>\section*{SPECIAL AWARDS}<br>MARIA LEONARD SCHOLARSHIP AWARD is presented annually by Alpha Lambda Delta, national scholastic honor society, to the senior member of the society with the highest ecademic average.<br>GOLDEN KEY NATIONAL HONDR SOCIETY presents annually two scholarships to junior and senior members of the local chapter who have excelled in scholarship, leadership and participation in activities

PHI KAPPA PHI SCHDLARSHIP AWARDS are presented annually to several members of the society who graduate with the highest academic average.
RDSETTAI. MILLER AWARD is presented to the outstanding student who has returned to college despite significant hardships.
THE INTERFRATERNITY COUNCIL SCHOLARSHIPS of $\$ 200$ each are awarded annually to the pledge/associate from the previous fall or spring semester who attained the highes grade point average; and. to the fraternity member with the highest grade point average over the past two consecutive semesters.
THE PANHELLENIC CDUNCIL annually awards two $\$ 200$ scholarships to the sophomore and the junior sorority members who have attained the highest scholastic average. In addition a Pledge Scholarship in the amount of her sorority's initietion
fee is awarded to the fall semester pledge who attained the highest average for the semester
WOMEN'S INTERCOLLEGIATE ATHLETICS SCHOLAR AWARD is presented annually to the woman athlete who has maintained the highest grade point average while at the University
THE ELMA ROANE DUTSTANDING WDMAN ATHLETE AWARD is presented to the junior or senior woman athlete who best exemplifies the following qualities. drive, enthu siesm, determination, concern for others, the love for athletics maturity, involvement in campus activities, and self-discipline in all aspects of life
CAMPUS RECREATION AND INTRAMURALS AWARDS are presented annuelly to the intramurel Greek, intremural Independent Resident. Panhellenic Manager of the Year; end to the Outstanding Official of the Year who show leadership and interest in the intremural program.

## 5. ACADEMIC REGULATIONS

## ORIENTATION, ADVISING AND REGISTRATION

The academic year consists of two semesters: the fall semester beginning in late August or early September and ending in December; the spring semester beginning in January and ending in May. A summer session is held between the end of the spring semester and the beginning of the fall semester of the next academic year.
An orientation and academic advising program for all new freshmen is held during the summer preceding fall registration. The sessions are conducted in order to acquaint entering students with various programs of study, general University regulations, and registration procedures. Students are assigned advisors who aid them in selecting appropriate courses. Assistance from the advisor, however, does not relieve the student of the responsibility of studying the Catalog and fulfilling all of the requirements therein for the specific degree program being pursued. It is expected that the student will consult with the dean of the college in regard to the fulfilling of the requirements for the chosen degree. This should be accomplished no later than the time the student has attained senior standing.

The Schedule of Classes, published a few weeks before the beginning of each semester and available from the Office of the Dean of Admissions and Records, contains a detailed outline of the registration procedure and course changes and additions made since the publication of the Catalog. Students are urged to study these schedules carefully and to keep them available for immediate reference during the registration period and throughout the semester. All students are expected to register on the dates indicated in the calendar. Although registration is permitted after these dates, a late registration fee is charged, and there is no reduction in other fees.

In no case is credit allowed in any course for which the student is not duly registered and which is not properly entered on the official registration material. Registration is not complete until all fees for the semester have been paid.

## APPEALS

A student has the right to appeal decisions made by University officials in the implementation of University policy. If a student feels that individual circumstances warrant an appeal, the request for appeal must be filed in the University office responsible for the implementation of that policy or the office specified in the policy statement.

## CLASS ATTENDANCE

Class attendance may be used in computing grades at the discretion of the instructor. If attendance is to be used, a complete written statement of the instructor's policy detailing the weight of attendance in determining the final grade must be presented to all students present at the first and second meetings of the class.

A student who is absent from the final examination without the permission of the teacher incurs a grade of $F$ on the examination and may, depending on the weight of the examination in determining the final grade, incur a grade of $F$ for the course.

## Adding and

 Dropping CoursesAfter the official registration period is over, students may make adjustments in schedule through the process of adding and/or dropping courses. Courses may be added only during the first five days of classes in the fall and spring semesters
and the first two days in each of the summer terms. Courses dropped during this same period will not be shown on the student's permanent record. Courses dropped after the period to add classes will be indicated on the record as dropped. A student may drop any course or courses up through the date specified in the University Calendar for that term. (The University Calendar is located in the front of this Catalog.) Exceptions are made only on the basis of such unusual circumstances as serious personal illness, relocation because of employment, et cetera. A fee is charged for courses added or dropped. See Fees and Charges. To stop attending a class without officially dropping the course incurs the grade of $F$.

## Withdrawal From University

Any student who wishes to officially withdraw from the University must do so in person through the Center for Student Development. Students must complete an application for withdrawal and present for invalidation their student identification card at the time of withdrawal. Failure to officially withdraw will result in grades of $F$ for the courses in which the student is enrolled. Students enrolled in evening classes withdraw in the Evening Academic Services Office. Students enrolled in The Graduate School should report their withdrawals to the office of the Dean of The Graduate School.

Withdrawal is not permitted after the date specified in the University Calendar for that term. Exceptions are made to this policy only in cases of such extreme circumstances as serious personalillness, relocation because of employment, et cetera.

## CLASSIFICATION OF STUDENTS

Classification of students is based on the number of credit hours earned as shown in the following table.

| Classification | Semester Hours |
| :--- | :--- |
| Freshman | $0-24$ |
| Sophomore | $25-54$ |
| Junior | $55-84$ |
| Senior | 85 or more |
| Special | Students not working on a degree |

Students who have completed the required number of hours to be classified as juniors but who have not completed their basic requirements in the Lower Division should schedule these uncompleted requirements during the first semester following in which such courses are available in order to avoid a possible delay in graduation.

## Credit Hours and Maximum Load

The unit of credit at Memphis State University is the semester hour; a semester hour is defined as the credit earned for the successful completion of one hour per week in class for one semester; or two hours per week of laboratory for one semester. (A course which gives three semester hours credit will normally meet for three lecture or recitation hours per week; or for two lecture or recitation hours and two laboratory hours per week; or for some other combination of these.) Each lecture hour presupposes a minimum of two hours preparation on the part of the student.

The minimum credit hour load for classification as a full-time student and the maximum loads are found in the table below. The maximum credit hour load includes all course enrollments for any term, both at Memphis State University and any concurrent enrollment at other institutions. It does not include credit by examination. No student is permitted to enroll for correspondence or extension courses while carrying a maximum credit hour load.

## ACADEMIC FULL-TIME CLASSIFICATION

 AND MAXIMUM LOAD| Term | Minimum Hours | Maximum Hours |
| :---: | :---: | :---: |
| Fall or Spring | 12 | *18 |
| First or Second Summer | 4 | 8 |
| Extended Summer only | 8 | 16 |
| Extended and First or Second | 8 | 11 |
| Extended and First and Second | 9 | 16 |

*This includes neither the required physical education activity course nor Applied Music Workshop (MUAP 1000). A student who has a B(3.0) average or better for a semester may, with the permission of the dean of the college from which the student is seeking a degree, schedule a maximum of twenty-one hours for the following semester.
NOTE: ID card validation of full-time for student activity purposes is based on a minimum of six credit hours per semester and does not necessarily constitute a full-time academic load.

The maximum course load for any combination of concurrent summerterms is eleven semester hours. The student's course load for the entire summer session may not exceed 16 semester hours.
(This may differ from requirements for the Veterans Administration. Questions should be directed to the Coordinator of Veterans Services.)

## SCHOLASTIC STANDARDS

## Grades and Quality Points

 GRADESAt the end of each semester or summer term, instructors report to the Records Office the standing of all students in their classes. The grade of a student in any course is determined by class standing and examination, combined in such proportion as the instructor in charge of the course may decide. Class standing in any course is determined by the quality of the student's work and the thoroughness of preparation.

The instructor's evaluation of the student's work is expressed by the following grades which are converted to quality points for the purpose of averaging grades.

| Grade | Quality <br> Points | Grade | Quality <br> Points |
| :--- | :---: | :--- | :---: |
| A, Excellent | 4 | T(See below) | 0 |
| B, Good | 3 | CR, Credit | 0 |
| C, Satisfactory | 2 | DP, Drop | 0 |
| D, Poor | 1 | W, Withdrew | 0 |
| F, Failure | 0 | AD, Audit | 0 |
| I, Incomplete | 0 | *S, Satisfactory | 0 |
|  |  | "U, Unsatisfactory | 0 |

*The $S / U$ grade is limited to certain types of courses such as practicums, practice teaching, etc. The IP (In Progress) notation may also be used in certain research courses to allow students time to complete research projects. These grades are only awarded for those undergraduate courses for which it is indicated in the course descriptions.

All courses for which the student is registered are recorded as passed (with a letter grade), "T", failed, dropped, withdrew, credit, satisfactory, unsatisfactory, or incomplete. In no case is credit allowed in any course for which the student is not duly registered and which is not properly entered on the official registration card.

## Grade of Incomplete

The grade of I (incomplete) indicates that the student has not completed the course for some unavoidable reason that is acceptable to the instructor. Unless the student completes the requirements for removal of " $l$ " within forty-five days from the end of the semester or summer session in which it was received, the grade of "I" will be changed to an F, regardless of whether the student is enrolled or not. Extensions may be granted if the instructor's temporary absence from the campus makes it impossible for the student to remove the incomplete or other circumstances acceptable to the instructor. Grades of incomplete earned during the student's semester of proposed graduation will delay the student's graduation until the end of the semester during which the incomplete is removed.

All grades, with the exception of "I," when reported, can be changed only by the instructor who reported them and then only after approval by the Admissions and Records Committee. There is a Grade Appeals procedure described below.

## "T" Grade

In order that students may be permitted to complete independent studies courses in variable time periods which might exceed a regular enrollment period, the " $T$ " grade has been introduced. The following procedure governs the use of the " $T$ " grade:

1. Prior to the registration period, the professor obtains approval of the chairman and dean to use the " $T$ "' grade in a course(s).
2. The dean notifies the Records Office of courses for which the " T " grade may be awarded.
3. At the end of the regular term, the faculty member has the following options:
a. Award grades A-F.
b. Award an " 1 " grade if the faculty member feels that the work can be completed in 45 days. (If an " 1 " grade is awarded, a runner with the student's name on it will be sent to the faculty member at the end of 45 days. The faculty member must record either an A-F or the " $T$ " grade to prevent an automatic assignment of " $F$ ".)
c. Awarda " $T$ " grade. If the " $T$ " grade is awarded, the student must re-register for the course in order to earn credit. The "T"' grade is not used in the computation of QPA.

## Repetition of Courses

A student may repeat most courses in an attempt to improve the grade previously earned. There are some courses which may not be repeated for this purpose. Information concerning these courses may be obtained from the office of the chairman of the department in which the course is offered.

A student may not attempt the same course more than three times for the purpose of obtaining a passing grade or higher grade. Exceptions to this limitation may be made by the dean of the college from which the student intends to graduate. These exceptions must be approved prior to the student's registration for the fourth and any subsequent attempts of the same course.
The student's quality point average will be computed as follows:

| Attempt | Grade(s) Included <br> In Computation |
| :--- | :--- |
| 1st | Original grade earned <br> 2nd |
| Only grade in 2nd attempt |  |
| 3rd and | Only grade in 3rd attempt <br> Grade earned in 3rd <br> subsequent <br> attempt averaged with <br> grade(s) earned in ALL <br> subsequent attempts |

The record will continue to reflect all grades earned in the same course.

## Audit Courses

Students who are registered for one or more classes at Memphis State University may also register to audit a course with the approval of their advisor and the chairman of the department in which the course will be offered. Students enrolled
for credit courses may take no more than one audit course per semester.

Auditors are not required to prepare lessons or papers, or take examinations. They are not to take part in class discussions or laboratory or field work. Students auditing a course will receive "audit" on the transcript only if in the judgment of the instructor they have attended a sufficient number of classes to deserve the notation on the transcript. Faculty will base their decisions for awarding "audit" only on attendance as the student is not allowed by policy to participate in any other way.

Persons who are not enrolled for credit courses may register for a maximum of three audit courses with the approval of the Dean of Admissions and Records and the department chairman. These persons must have graduated from high school or be 18 years of age or older. A student may not change from a grade point basis to audit or from audit to a grade point basis after the last day to add classes for that term. Fees for audits will be assessed on the same basis as fees for credit courses.

## Credit/No-Credit Courses

The University, wishing to encourage mature students to broaden their range of interest without jeopardizing their grades, allows students who have earned at least 60 semester hours with a minimum grade point average of 3.0 to enroll in credit/nocredit courses as determined by their college. The student is limited to one course per term and may not accumulate more than 12 semester hours on a credit/ no-credit basis. (In most cases, Physical Education Activity courses are exempted from these requirements. See Graduation from the University.) A student who transfers from one college to another should be aware that credit/no-credit hours may be acceptable in one and not in another. A student may apply to take, on a credit/no-credit basis, a course which has previously been taken for a grade. In every instance, approval to register for a course on a credit/no-credit basis must be obtained from the advisor and the dean of the student's degree granting college. Credit hours earned on a credit/no-credit basis will be accepted toward degrees within the following limitations:

The College of Arts and Sciences accepts hours earned on a credit/no-credit basis in any course which is not required for the student's degree.
The Fogelman College of Business and Economics accepts hours earned on a credit/no-credit basis only in courses which are designated as electives in the student's degree program.
The College of Communication and Fine Arts accepts hours earned on a credit/no-credit basis in any course which is not required for the student's major.
The College of Education accepts hours earned on a credit/no-credit basis in any course which is not required for the student's major, professional education requirements and endorsement requirements.
The College of Engineering accepts hours earned on a credit/no-credit basis in any course which is not specifically required for the student's degree.
The University College accepts hours earned on a credit/no-credit basis in any course not required for a student's Coordinated Study Program.

A student who registers for a course on a credit/no-credit basis may change the registration to a letter grade-quality point basis only during the add period, and a student who registers for a course on a letter grade-quality point basis may change the registration to a credit/nocredit basis only during the add period. A student making such a change will be charged as if dropping and adding a course. The student who successfully completes a credit/no-credit course will receive the appropriate number of hours as credit toward graduation. These hours will not be used in the computation of the quality point average.

## Student Grade Appeal Procedure

This appeal procedure is designed to provide any undergraduate at Memphis State University with a clearly defined avenue for appealing the assignment of a course grade which the student believes was based on prejudice, discrimination, arbitrary or capricious action, or other reasons not related to academic performance. In all cases the complaining student shall have the burden of proof with respect to the allegations in the complaint and in the request for a hearing. If any party fails to pursue any step of this procedure within the time limits, the disposition of the student's complaint made in the last previous step shall be final. The procedure is terminated if the student and instructor agree on the grade or if the student fails to appeal a decision within the appropriate time limit. All correspondence and records will be retained in the office in which the complaint is terminated.
Step 1 The student shall first consult with the instructor in an effort to provide a satisfactory resolution of the complaint. In the event the student cannot schedule a meeting with the instructor, the student may contact the department chairman who will schedule the meeting between the student and the instructor. The only exception to this procedure is the case where the instructor has been terminated by the University or is unavailable so that it is impossible to complete Step 1 within the allotted forty-five days. In this case the student may proceed directly to Step 2.

Step 2 If the complaint is not resolved in Step 1, the student may present the complaint in writing to the chairman of the department in which the course was offered within forty-five days from the end of the term during which the grade was received. For the purposes of the grade appeal procedure, all summer sessions collectively will constitute a single term. (Students enrolled in courses during any summer term shall have forty-five days following the end of the last summer term in which to file a grade appeal.) The department chairman will attempt to resolve the complaint in consultation with the instructor and the student within a fifteen-day period dating from the formal presentation of the written complaint. The department chairman may, at his/her discretion, counsel with the faculty of the department.
If the department chairman was the instructor of the course involved in the complaint or if for any reason the chairman disqualifies him/herself, the student may proceed to Step 3.
The student's grade may be changed in Step 2 of the appeal procedure by the written consent of the instructor and the student.
Step 3 If the complaint cannot be resolved at the level of Step 2 within the prescribed fifteen-day time period, the student within five days following the end of such period, may appeal further by presenting to the dean of the college a written statement which
clearly explains the basis of the appeal (prejudice, discrimination, arbitrary or capricious action, or other reasons not related to academic performance) the evidence for this appeal and any supporting data; the chairman must also forward a copy of all correspondence and records to the dean.

The dean may utilize any resources available to the dean's office to resolve the grade conflict within a fifteen-day period. If the dean finds that the request does not have merit, the dean shall so notify the student, the instructor, and chairman. If the dean and chairman are in agreement that the grade should be changed, either raised or lowered, the dean shall be empowered to change the grade without the instructor's consent. Otherwise the grade shall remain as recorded.
Either the student or the instructor may appeal the dean's decision made under Step 3 within fifteen days by filing a written request for a hearing before the University Grade Appeals Committee. In the event of such an appeal the decision shall be stayed pending the completion of the procedure in Step 4. The dean must be provided a copy of the hearing request.
Step 4 The written request for a hearing before the University Grade Appeals Committee should state the factual basis for the appeal of the dean's decision. If the committee finds the student's or the instructor's request merits a hearing, the committee shall notify the student, the instructor, the chairman and the dean of the time and location of the hearing. If the committee finds that the request does not merit a hearing, the student and the instructor shall be so notified.

The University Grade Appeals Committee shall function as a review board. Based on its appeal review process, the committee shall make the final decision unless there is an appeal of the committee's decision, by either party, to the Vice President for Academic Affairs for final determination. The committee shall have the power to allow the assigned grade to stand or to raise or lower the assigned grade. Its decision must be formally announced to all parties. The time schedule allotted for completion of action by the committee shall be fifteen days.
The University Grade Appeals Committee shall be composed of seven members and seven alternates constituted as follows:
A chairman designated by the Vice President for Academic Affairs, a faculty member and alternate designated by the dean of the college involved, iwo faculty members and two alternates elected by the Academic Senate, three students and three alternates selected through the Student Government Association.
Although the primary responsibility of the committee is to review appeals, the committee will report any obvious discriminatory or capricious conduct on the part of either the student or the instructor to the appropriate Vice President for consideration and action.

## QUALITY POINTS

In computing a student's scholarship ratio, or quality point average, all courses attempted are included except credit-nocredit, audit, incomplete, and satisfactoryunsatisfactory courses and " T " grades. As an example: a student carrying five three-semester-hour courses for a total of 15 semester hours makes the following grades: A, B, C, T, F; thus accumulating quality points in the a mount of $12,9,6,0$, 0 , for a total of 27 . In computing the quality point average, the number of hours attempted (except "T" grade) (12) is divided into the quality points earned (27) for an average of 2.25 .
Graduation: A minimum of 2.0 quality point average on all work attempted is required for graduation.

## Academic Fresh Start

An ACADEMIC FRESH START, allowing calculation of quality point average and credit hours toward graduation to be
based only on work done after returning to college, is provided for undergraduate students who have gained maturity through extended experience outside higher education institutions and have demonstrated better than average academic performance following their return. Requirements to be satisfied by a student requesting an Academic Fresh Start toward a baccalaureate degree are as follow:

1. Separation from all academic institutions for at least seven years.
2. After returning to college, completion of at least 36 semester hours of earned graded course work prior to application for ACADEMIC FRESH START.
3. QPA of at least 2.5 for all work attempted after returning to college and at the time of application.
4. Formal application to the dean of the student's college, requesting that an ACADEMIC FRESH START be granted and describing an academic plan which may include the declaration of a major.
Upon approval of the college dean, the student will be granted an Academic Fresh Start. It may be granted once. The student's permanent record will remain a record of all work; however, the student will forfeit the use for degree purposes at Memphis State any college or university credit earned prior to the seven-year separation indicated above. The date of the fresh start will coincide with the date of re-entry following prolonged separation, and the permanent record will note that a fresh start was made and the date of the fresh start. The record will also carry the notation, "QPA and credit totals are based only on work beginning with that date."

## ACADEMIC STATUS AND RETENTION

At Memphis State University, the academic status of a student is denoted by one of three conditions:
(1) GOOD STANDING
(2) ACADEMIC PROBATION
(3) ACADEMIC SUSPENSION

Official notification of academic status is by means of the grade report processed to each student at the end of the regular semester or summer session. The academic status of probation or suspension will be stated at the end of the report of grades. Policies and procedures related to each of these conditions are outlined in the following comments.

## Good Standing

Students are in good standing so long as their quality point average is equal to the minimum cumulative OPA required on the sliding retention scale as defined in this policy statement. The term good standing indicates only that the student is meeting the minimum standard for retention in the University. However, in order to meet graduation requirements, the student must have a cumulative OPA of 2.0. Any time that a student's cumulative QPA falls below this 2.0, a warning is printed on the grade report, and the student should consult immediately with the academic advisor.

## Academic Probation

A student will be placed on academic probation at the completion of any regular semester or summer session when the student's cumulative QPA falls below the following:

| HOURS ATTEMPTED | MINIMUM QPA |
| :--- | :---: |
| 14.99 or less | No minimum |
| $15.00-29.99$ | 1.40 |
| $30.00-50.99$ | 1.70 |
| $51.00-67.99$ | 1.90 |
| 68 and above | 2.00 |

A student on academic probation who withdraws from the University during the first probationary semester will be "continued on academic probation." Withdrawal by such a student from any subsequent probationary semester will be treated as an academic suspension requiring clearance from the Academic Status and Retention Office for any future registration.

## Academic Suspension

A student on academic probation who, at the end of the following term of enrollment, fails to raise his/her QPA to at least the required minimum on the Sliding Scale Retention Policy above will be suspended. There is one exception to this policy: a student on academic probation will not be suspended at the end of any semester or summer session during which a term average of 2.00 has been earned.
(1) A student who incurs a first suspension must remain out of the University a minimum of one regular semester (fall or spring).
(2) A student who incurs a second suspension must remain out of the University a minimum of one calendar year.
(3) A student who incurs a third suspension must remain out of the University a minimum of three calendar years.
(4) A student who has been readmitted following a third suspension and who then fails to meet the retention standards is ineligible for further enrollment at Memphis State University.
(5) Former Memphis State University undergraduate students on academic suspension will be readmitted under the retention policy in effect their last semester at Memphis State University. However, upon re-enrollment, their academic status will be determined by the Academic Retention Policy in effect in the current University Bulletin.

The University office responsible for the administration of this policy is the Academic Status and Retention Office (Room 167, Administration Building).

## Recognition for Academic Performance

There are several means available by which students may obtain recognition for outstanding academic performance.

In addition to those listed below, there are other honors and awards listed in the descriptions of the various honors programs.

## THE DEAN'S LIST

The Dean's List is composed of those students who meet one of the following criteria:

1. Completion of $6-8$ graded hours in a semester with a semester quality point average of 4.00
2. Completion of $9-1$ i graded hours in a semester with a semester quality point average of 3.66 or above.
3. Completion of 12 or more graded hours in a semester with a semester quality point average of 3.50 or above.

The courses used to meet both the number of hours and the quality point average criteria may not include courses which are being repeated for the purpose of improving a grade previously earned.

## GRADUATION WITH DISTINCTION

Students who meet the requirements described below are eligible to graduate cum laude, magna cum laude, or summa cum laude.

1. Fulfillment of graduation requirements
*2. Completion of a minimum of fifty (50) graded semester hours at Memphis State prior to graduation
2. Final cumulative quality point averages as follow:

Cum Laude - $3.5000-3.7999$ Summa Cum Laude $3.8000-4.0000$
*Recognition of graduation with distinction at commencement ceremonies will be based on the completion of a minimum of forty-five (45) graded semester hours at Memphis State prior to the final semester. (During the final semester, the student must also be enrolled for a sufficient number of hours to complete the required minimum of fifty.) This recognition is not an actual conferral of distinction.

A transfer student, in order to be eligible must have made the required average on all work taken at Memphis State University and must, in addition, have an over-all average which meets the honors requirements above. In no instance may the OPA used for determining graduation with distinction be higher than that earned on courses taken at Memphis State University.

A student who already holds a baccaluareate degree is eligible for these distinctions if the requirements above are met and if, within the hours presented to fulfill the requirements for the second degree, at least forty-five additional graded hours have been taken at Memphis State University subsequent to the award of the first degree. (These hours would be for new courses, not courses repeated for a higher grade.) The QPA used for determination of distinction for the second degree will be calculated from all undergraduate courses taken.

Either the complete set of requirements governing graduation with distinction in the current catalog or the complete set in the Catalog governing the degree requirements for the student's graduation may be used to determine honors.

## PRIVACY RIGHTS OF PARENTS AND STUDENTS

The Family Educational Rights and Privacy Act of 1974, with which the University intends to comply fully, is designed to protect the privacy of educational records, to establish the right of students to inspect and review their educational records, and to provide guidelines for the correction of inaccurate or misleading data throught informal and formal hearings. Students also have the right to file complaints with The Family Educational Rights and Privacy Act Office (FERPA) concerning alleged failures by the institution to comply with the Act.

The provisions for the release of information about students and the rights of students and others to have access to Memphis State University education records are published in their entirety each semester in the Schedule of Classes.

## ADDITIONAL MEANS OF EARNING CREDIT

## Advanced Standing Credit

Credit toward a degree will be accepted only from collegiate level institutions for courses which are substantially equivalent to those offered at Memphis State University. After the student has been approved for admission as a regular undergraduate, the Transfer Affairs Section of the Office of Admissions will evaluate credits for University-wide use. The Office of the Dean in each college has the authority for determining the use of acceptable credit toward specific degree programs in that college. (Also see Transfer Credit section below.)
In computing the scholarship ratio or quality point average of a student who has earned an associate degree from an institution with a grading practice which does not reflect failing grades, only those courses for which credit was granted will be used. A student who does not earn the associate degree prior to transfer or one who attends merely to take courses will have the quality point average computed using all courses attempted at that institution.
Transfer credit from colleges not accredited by the Tennessee State Board of Education and/or the Southern Association of Colleges and Secondary Schools or corresponding agencies for other states and regions of the United States) will not be accepted toward a degree or toward eacher certification.

## Credit for Service in the Armed Forces

Veterans who have completed one year or more of continuous full-time active military service will be excused from faking the required physical education
activity courses. In addition, they will be allowed six semester hours of health and physical education credit upon presentation of a copy of their report of separation (DD Form 214) to the Admissions Office. The veteran may apply two additional semester hours credit in physical education activity courses (total applicable toward degrees not to exceed eight semester hours).

The Transfer Affairs Section of the Admissions Office should be consulted to determine whether additional credit may be allowed for courses offered through the Defense Activity for Non-Traditional Education Support (D.A.N.T.E.S.) or other service schools. The maximum amount of credit accepted for applicable D.A.N.T.E.S. courses and/or correspondence and extension courses is 33 semester hours, and 20 semester hours of lower division credit for selected service schools. (This restriction does not apply to credit accepted by the University College.) An official evaluation of service credit is not made until a student enrolls as a regular undergraduate student. Credit awarded for completion of selected service schools will be governed by the recommendations at the baccalaureate level as outlined in the current Guide to the Evaluation of Educational Experience in the Armed Services.

## Noncollegiate Sponsored Instruction

Credit may be obtained for applicable courses completed through certain noncollegiate sponsored instruction as recommended in the current $A$ Guide to Educational Programs in Noncollegiate Organizations. No more than 20 semester hours credit for service schools and/or noncollegiate sponsored programs will be allowed. The Transfer Affairs section of the Admissions Office should be contacted for further information.

## Advanced Placement Credit

Memphis State University participates in the Advanced Placement Program of the College Entrance Examination Board. A maximum of 24 semester hours may be given to qualified students on the basis of the examinations conducted by the Board. To be eligible for credit, an entering freshman must place in group three, four, or five of the CEEB Advanced Placement Tests. Information pertaining to approved scores and credit to be awarded may be obtained from the Transfer Affairs section of the Admissions Office.

## Transfer Credit

After enrollment as regular undergraduates at Memphis State University, students should obtain prior approval from the dean of the college from which they are to graduate before taking a course at another institution for the purpose of meeting degree requirements at Memphis

State University. The student who intends to take a course at another institution should consult with the Transfer Affairs section of the Admissions Office and obtain forms for use in securing the dean's approval. Courses taken without prior approval are subject to possible disapproval when they are presented for evaluation at Memphis State.

Before credit earned at another institution can be transferred and recorded on a permanent academic record, the student must have an official transcript mailed to the Admissions Office and must contact the college dean's office to make arrangements to have credit posted to the academic record.

The maximum credit hour load allowed for any term includes all course enrollments both at Memphis State University and any concurrent enrollment at other institutions. (See "Credit Hours and Maximum Load.'

## Correspondence or Extension Credit

Memphis State University accepts a limited number of credits earned by correspondence and/or extension, provided that such credits are taken from an institution which is a member of the University Extension Association, or the appropriate regional accrediting association. Memphis State University offers some work by extension but none by correspondence.

Prior to a student's initial registration at Memphis State University as a regular undergraduate, the Office of the Dean of Admissions and Records will, at the time the student applies for admission, determine the acceptability of extension and/or correspondence credits earned at other institutions. After the student has been admitted as a regular undergraduate, whether a beginning freshman or a transfer student, credit applicable to any Memphis State University degree will not be given for subsequent correspondence or extension courses unless written permission from the dean of the degree granting college is obtained prior to enrollment in such courses.

No student is permitted to enroll for correspondence or extension courses while carrying a maximum load at Memphis State University. Not more than one-fourth of the semester hours applied on the bachelor's degrees may be earned by correspondence or extension or a combination of the two. (This restriction does not apply to degree programs of the University College.)
A student who has completed thirtythree of the last sixty-six hours required residence and who lacks no more than four semester hours toward completion of degree requirements may earn these additional credits by acceptable correspondence or extension work, or by residence at another approved institution. (For details of residence requirements, see Graduation from the University.)

## University Credit by Examination

Students may not take an examination for credit in any course previously taken for credit. Students may, however, take an examination for credit in courses which were audited or in courses which are at a lower level than a course which was taken for credit.

## CLEP EXAMINATIONS

CLEP is a national program of credit-byexamination, sponsored by the College Entrance Examination Board. It offers students the opportunity to obtain recognition for college-level achievement. Some departments accept CLEP subject area examination credits as equivalent to departmental courses. No credit will be awarded for CLEP general examinations. Information on courses for which CLEP credit is available, along with information of fees charged, is available from the Academic Counseling Unit, the college level advisors, or the specific departments offering CLEP credits.

## DEPARTMENTALEXAMINATIONS

Almost all courses in the undergraduate curricula, except for those of laboratory, research, and performance variety, are available for credit by examination. Students who believe they have already mastered the material of a particular course offered at Memphis State may take a departmentally administered examination for credit in that course. Students
should consult the department chairman to make application and to obtain information concerning the courses offered.

The following regulations govern the granting of credit by examination:

1. Any student who has been admitted to Memphis State University-full-time, part-time, or extensionmay make application to take an examination for credit. A student who has been admitted but has not yet registered for courses at Memphis State University will have any credit earned by examination posted to the permanent record after enrollment. Any student (other than first-time freshmen) must have a 2.0 QPA to apply for credit by examination.
2. Permission to take a credit examination must be obtained from the chairman of the department in which credit is sought and from the dean of the college in which the student is seeking a degree. When permission is granted and after payment of the cost of the examination, the Dean of Admissions and Records will issue an official permit for the examination. (See Fees and Charges).
3. The form of the examination, the method of administering it, and the time of examination are left to the discretion of departments.
4. To receive credit, the student's examination grade should be a grade equivalent of at least a $C$. There are no restrictions governing the number of credit hours which may be earned through credit by examination. Credit is indicated on the student's record as Cr .

## CREDIT BY PLACEMENT EXAMINATION

In departments in which placement examinations are given, a student may elect to receive credit for certain sequential courses numbered lower than the course in which the student was placed. 1. A student may take the proficiency test, which is given at the beginning of each semester, in order to best determine the initial course in which to be placed. A student taking the proficiency test may apply immediately for the hours of credit warranted by the test score. The student must make written application to the chairman of the department and make payment of appropriate fees for such credit to be recorded.
2. Students may enroll in a course at the level for which they feel previous iraining qualifies them. In the Department of Foreign Languages and Literatures, recording of credit for the lower numbered course may be requested by the student upon completion of the course in which enrolled and is contingent upon the student's earning a grade of C or higher in the course. Written application to the chairman of the department and payment of appropriate fees is required for such credits to be recorded.
There is no fee charged for taking placement examinations; however, there is a fee for all placement credits which are recorded. For information on the fees, see Fees and Charges.

## University Credit for Experiential Learning

Students seeking degrees in the College of Communication and Fine Arts, the College of Education, the Herff College of Engineering (Trade and Industrial Vocational Technical Education majors only), and the University College may be granted credit for college-level knowledge and understanding gained from work experience, life experience, or for certain nontraditional instruction. The student who wishes an assessment of such learning prepares a detailed and documented portfolio of those learning experiences which are to be evaluated.

Assessment by portfolio is reserved for knowledge and competencies which do not readily fit into the credit by examination procedures described above. More detailed information about procedures may be obtained from the individual colleges. For fee information, see Fees and Charges.

## 6. GRADUATION FROM THE UNIVERSITY

## GENERAL REQUIREMENTS

Courses required for all baccalaureate degrees are outlined in the section which follows; specific requirements for the individual degrees will be found in the Colleges and Degree Programs section. Requirements for the Juris Doctor degree will be found in the Catalog of The School of Law; requirements for graduate degrees will be found in the Catalog of The Graduate School.

The following have been established as minimum requirements by the University for all undergraduate degrees offered. In addition, the student must meet the requirements for the specific degree as established by the college or department in which it is offered. A minimum of 132 semester hours is required for all degrees. In some degrees and majors, the courses which may be used to meet the University
requirements below are specified. The assistance of an advisor should be sought to determine which courses will meet degree requirements.

## 1. English

(12 semester hours.) All candidates for graduation at Memphis State University are required to complete English 1101 and 1102, or their equivalents, with a grade of C or better. Before enrolling in English 1101 , a student must have either: (1) an ACT English score of 19 or above, or (2) an SAT verbal score of 450 or above, or (3) a satisfactory completion of a placement essay administered by the Department of English. All other students must successfully complete English 1100 with a grade of $C$ or better before proceeding to English 1101. After successful completion of English 1101 and 1102, all students must take any two of the following: 2101, 2102, 2103, 2104, 2105, 2106, or their
equivalents. Freshman and sophomore sequences must be scheduled in consecutive semesters until completed. English 1101 and 1102 must be taken in sequence; no credit will be allowed for English 1102 until 1101 has been successfully completed.

## 2. History

( 6 semester hours.) All students must complete successfully History 2601 and 2602, or their equivalents. A student may substitute three semester hours of Tennessee History for three of the six semester hours of American History required. (This requirement is waived for engineering students and students enrolled in the University College except for those who did not earn at least one unit in American History in high school.) The State requires that students who did not earn one unit in American History in high school take it during their first or second year at the University.


Those students who use the G.E.D. rather than high school graduation for admission to the University will be considered as having the equivalent of a Tennessee high school diploma and, thus, to have had the equivalent of American History in high school. This does not mean that a student already admitted to Memphis State may then take the G.E.D. as an exam for credit in American History.

## 3. Humanities

In addition to the 6 semester hours of literature (see English), 3 semester hours of humanities are required of all students. Courses which fulfill this requirement are specified by the college in which the student is enrolled for a degree.

## 4. Mathematics

(3 semester hours.) All students must successfully complete a minimum of three semester credits in mathematics or Philosophy 1611.

## 5. Science

( 6 semester hours.) All students must complete successfully a minimum of six semester credits in a natural, physical, or engineering science.

## 6. Computer Literacy

Students who enter Memphis State University or any other institution as beginning freshmen in fall, 1984, or later, are required to possess competency in computer literacy prior to graduation. Competency may be gained either by
passing grades in designated coursework or passing a specially designed test. Courses which fulfill this requirement are specified by the college in which the student is enrolled for a degree.

## 7. Physical Education

Two semesters of physical education activity courses are required of all regular undergraduate students during the first four semesters in the University. The regular undergraduate student who is part-time or who is taking the majority of hours in the evening is not required to take the courses during the first four semesters but is encouraged to schedule these courses as early as possible during college residency. The student may select the activity courses from the Department of Health, Physical Education and Recreation, or any 1000 level activity course with the prefix DANC offered by the Department of Theatre and Communication Arts. Any student except those with a major or minor in Physical Education has the option of taking these activity courses for a letter grade or on a credit/no credit basis.
A student unable, for medical or other reasons, to take regular physical education is required to register for an adaptive class, or otherwise follow recommendations of the Chairman of the Department of Health, Physical Education and Recreation.

A student may reduce the number of required physical education credits by the number of credits in Air Force ROTC or

Army ROTC completed with a passing grade. Two semester hours of physical education may be waived for students who earn two semester hours as members of the Memphis State University Marching Band. Band members are required to take a minimum of one semester of physical education and may not receive waivers for both band and ROTC.
Only students in the following programs may apply more than 8 semester hours of physical education to the minimum degree requirement of 132 semester hours (see specific college limitations): Physical Education major or minor, Recreation major, B.F.A. Theatre major with a concentration in Performance or Dance, B.A. Theatre major, Theatre or Dance minor. A veteran receiving as many as six semester hours of health and physical education for service experience may apply two extra credit hours toward the minimum of 132 semester hours required for graduation.

## 8. Quality Point Average

-To receive a bachelor's degree from any of the colleges in the University, a student must have a quality point average of at least 2.000 (i.e., two quality points for every semester hour attempted). If for any reason a student offers more than 132 semester hours credit for graduation, the ratio of two quality points to one semester hour of credit must be maintained. To attain this standard the candidate must have a $C$ average on all courses attempted in the University. Students with transfer credit are required to maintain an average of $C$ on all courses taken at Memphis State University.

## 9. Residence Requirements

A student will satisfy residence requirements for graduation by completing, at Memphis State University, 33 of the final 66 semester hours which are required for a degree. (A student transferring credits from a two-year collegiate institution must complete, as a requirement for the baccalaureate degree, a minimum of sixty semester hours in an accredited senior institution.) In addition, the student must meet the residence requirements for the specific degree as established by the college in which it is offered. Exceptions to residence requirements can be authorized by the appropriate dean.
Residence requirements for specific degrees within each college may be found in the Colleges and Degree Programs section. For more details, the student should inquire in the office of the dean of the appropriate college.

## 10. Testing as a Prerequisite for Graduation

Any or all students may be required to take one or more tests designed to measure general education achievement and/or achievement in selected major areas as a prerequisite to graduation, for the purpose of evaluation of academic
programs. Unless otherwise provided for in any individual program, no minimum score or level of achievement is required for graduation. Participation in testing may be required for all students, for students in selected programs, and for students selected on a sample basis. Details concerning these regulations and the dates of the examinations will appear in the Schedule of Classes each semester.

## 11. Filing for Graduation

All students are required to file an intention to graduate during the semester prior to the semester of graduation. The deadlines for this filing are included in the academic calendars of the catalogs and the schedules of classes. It is the responsibility of the student to insure that this deadline is met.

## PRE-PROFESSIONAL DEGREE PROGRAMS

A student completing specified undergraduate work before entering medical, dental, or pharmacy school may, after providing evidence of satisfactory completion of the first year of professional study, receive a baccalaureate degree from Memphis State University. The following provisions must be met before enrollment in the professional school:

1. The candidate must complete a minimum of 99 semester hours of pre-professional coursework; at least 24 semester hours of this coursework must be numbered above 2999.
2. The last two semesters of pre-professional coursework must be done at Memphis State University.
3. The candidate must meet all lower division requirements for the given baccalaureate degree.
4. The candidate must complete a minimum of 24 semester hours in a major area; at least 6 of these hours must be taken in residence at Memphis State University.
5. Formal application for the Memphis State University degree must be made to the dean of the college in which the candidate is enrolled. The dean must also approve in writing the choice of professional school.
a. Minimum entrance requirements to the professional school must be 60 semester hours of undergraduate work.
b. The professional school must be accredited by the appropriate recognized national association.

The candidate in the pre-professional degree program should notify the dean of the college of his/her intentions no later than the beginning of the sophomore year and should, with the guidance of an advisor, plan the program at that time.

## REOUIREMENTS FOR TEACHER CERTIFICATION

An undergraduate student can be recommended for certification to teach in Elementary Education (Grades 1-8); Early Childhood Education (Grades 1-3); or Special Education (Grades K-12) in the State of Tennessee by completing all degree requirements for that endorsement as outlined for the Bachelor of Science in Education in the COLLEGE OF EDUCATION DEGREE PROGRAMS section of this catalog.

A student in any of these programs must (1) file an application for admission to the Teacher Education Program in The College of Education; (2) fulfill the requirements and application procedures for the Internship/Student Teaching Program; (3) file an intent to graduate application prior to the University deadline; (4) have an overall QPA of no less than 2.25; a QPA of 2.50 in required professional education courses; a QPA of no less than 2.50 in all courses fulfilling completion of each endorsement area; a grade of $C$ or above in each required professional education course; (5) take the Core Battery of the National Teacher Examinations (NTE); and (6) fulfill all other graduation requirements listed under the TEACHER EDUCATION PROGRAMS: REQUIREMENTS section.

Students entering the University for the first time as freshmen in the Fall, 1985 and who wish to prepare for teaching careers in fields other than Elementary Education, Early Childhood Education or Special Education will be required to complete a five year program. This program will result in the student first completing requirements for a baccalaureate degree in the teaching area in the College that offers a major in the specific subject for which certification is desired. Students should consult with their major advisor to insure that all general education, teaching field, and pre-professional standard requirements for teacher certification are fulfilled. Recommendation for certification will be contingent upon completion of the fifth year, Master of Arts in Teaching degree program in the College of Education.

Graduate, special, and transfer students who wish certification should confer with The College of Education General Advisor concerning their individual requirements.
Placement services are available to those students who register in the Teacher Placement Office.

## CATALOG APPLICABILITY

A student may complete the requirements for the initial degree under the provisions of any valid MSU catalog provided the effective date of that catalog is not earlier than the student's initial admission to MSU or some other accredited institution of higher learning. The degree requirements published in the Undergraduate Catalog issue of the Memphis State University Bulletin are valid for seven years from the beginning of the academic year to which the catalog applies. (This issue of the catalog is valid through summer 1992).

## SECOND BACHELOR'S DEGREE

A student who has completed the requirements for one bachelor's degree from Memphis State University may receive a second bachelor's degree upon the completion of the curriculum prescribed in the current catalog or any other valid catalog approved by the appropriate degree-granting college. The two degrees may be conferred simultaneously or subsequently. Students who are seeking a second bachelor's degree and who have earned the initial bachelor's degree from another institution are subject to all catalog regulations applicable to transfer students.

If a student completes the requirements from a valid catalog for an additional major for a degree previously earned at Memphis State University, that major may be posted on the student's record if the student applies for the additional major through the appropriate dean's office.

## 7. COLLEGES AND DEGREE PROGRAMS

## The College of Arts and Sciences

JOHN H. WAKELEY, Ph.D., Dean<br>Room 219, Mitchell Hall

ACADEMIC PROGRAMS

| Department | Mejor | Concentretion Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Anthropology | Anthropology |  | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| Biology | Biology | (1) Botany <br> (2) Microbiology <br> (3) Invertebrate Zoology/Entomology <br> (4) Toxicology <br> (5) Vertebrate Zoology | Bachelor of Arts (B.A.) <br> Bachelor of Science (B.S.) |
| Chemistry | Chemistry |  | Bachelor of Arts (B.A.) <br> Bachelor of Science (B.S.) <br> Bachelor of Science in Chemistry (B.S.Ch.) |
|  | Physical Science |  | Bachelor of Arts (B.A.) <br> Bachelor of Science (B.S.) |
| Criminal Justice | Criminal Justice |  | Bachelor of Arts (B.A.) |
| Economics | Economics |  | Bachelor of Arts (B.A.) |
| English | English | (1) British Literature <br> (2) American Literature <br> (3) Modern Literature <br> (4) Creative Writing <br> (5) Professional Writing <br> (6) Language and Linguistics <br> (7) English as a Second Language | Bachelor of Arts (B.A.) |
| $\dagger$ Foreign Languages | Foreign Languages (With Single language concentration from the first five or multiple language concentration from total list) | (1) French <br> (2) German <br> (3) *Russian <br> (4) Spanish <br> (5) Latin <br> (6) Greek <br> (7) Italian | Bachelor of Arts (B.A.) |
| Geography and Planning | Geography | (1) Applied Geography for Business and Planning <br> (2) Cartography <br> (3) Environmental and Earth Science <br> (4) Geography <br> (5) Urban Geography | Bachelor of Arts (B.A.) <br> Bachelor of Science (B.S.) |
| Geology | Geology |  | Bachelor of Science in Geology (B.S.G.) |
| History | History |  | Bachelor of Arts (B.A.) |
| Mathematical Sciences | Mathematical Sciences | (1) Mathematics <br> (2) Applied Mathematics <br> (3) Statistics | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
|  | Computer Science |  | Bachelor of Science (B.S.) |
| Philosophy | Philosophy |  | Bachelor of Arts (B.A.) |
| Physics | Physics |  | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| Political Science | Political Science | (1) Political Science <br> (2) Public Administration | Bachelor of Arts (B.A.) |
| Psychology | Psychology |  | Bachelor of Arts (B.A.) <br> Bachelor of Science (B.S.) |
| Sociology and Social Work | Sociology | (1) General Sociology <br> (2) Manpower <br> (3) Social Research <br> (4) Urban Sociology | Bachelor of Arts (B.A.) |
|  | Social Work |  | Bachelor of Arts (B.A.) |
| Interdepartmental Programs | Medical Technology |  | Bachelor of Science in Medical Technology (B.S.M.T.) |

*A concentration in Russian requires a collateral foreign language concentration or a collateral major outside the Department of Foreign Languages and Literatures. $\dagger$ With the consent of the International Business Advisor, Foreign Languages may also be a second or collateral major for the B.B.A. degree with a major in International Business.

## PURPOSES

The College of Arts and Sciences has three distinct functions within the framework of the University.

1) Its primary function is to offer a strong liberal arts program designed to help the students prepare themselves for life in their own cultural setting by acquiring the means and desire to continue the processes of intellectual development and character formation throughout their lives. "The purpose of education," wrote John Stuart Mill, "is to make capable and cultivated human beings." "Education has for its object the formation of character," wrote Herbert Spencer. We believe that people are people, no matter what their careers, and that if we can help people to become more capable and sensible, they will have better careers and lives. It is our belief that the best preparation for any profession or vocation is a thorough foundation in those major fields of human interest, which are included in the humanities, the natural sciences, and the social sciences. A program of liberal studies at Memphis State University aims to provide the students with a store of factual knowledge, to introduce them to varying sets of principles, to stimulate them to think about and to evaluate facts and principles, and to encourage them to order their own affairs and those of their society with the talent, insight, and discrimination which they develop.
2) The College of Arts and Sciences offers this kind of education to the candidates for its own degrees, and to the students of other colleges of the University, all of whose degree plans call for courses in the arts and sciences.
3) The College offers preparatory courses for students interested in careers in medicine, dentistry, nursing, teaching, law and other professions; specific preprofessional programs, designed to prepare students to qualify for admission to professional schools, are available.

## ORGANIZATION OF THE COLLEGE

## Departments

The College of Arts and Sciences comprises fifteen departments: Anthropology, Biology, Chemistry, Criminal Justice, English, Foreign Languages and Literatures, Geography and Planning, Geology, History, Mathematical Sciences, Philosophy, Physics, Political Science, Psychology, and Sociology and Social Work. Requirements for the majors and minors offered by these departments are listed in this section under Departmental Requirements for Majors and Minors.

## CONCENTRATION GROUPS

The various offerings of the fifteen departments of The College of Arts and Sciences are organized into three concentration groups:
HUMANITIES: English, French, German, Greek, history, Italian, Latin, mathematics, philosophy, psychology, Russian, Spanish. NATURALSCIENCES: biology, chemistry, geology, physical geography, mathematics, physics.
SOCIAL SCIENCES: anthropology, criminal justice, economics, geography (other than physicall, history, philosophy, political science, psychology, sociology.

## RESIDENCE REQUIREMENTS

University residence requirements are explained in detail in the Graduation from the University section. A transfer student in The College of Arts and Sciences must earn at least 6 semester hours in residence in the major subject and at least 3 semester hours in the minor. These credits may be earned only through regular class enrollment for a letter grade.

## PRE-PROFESSIONAL TRAINING

Standing committees of the faculty are available to advise students interested in preparing for careers in various professional areas; committee members; representing departments of the University in which pre-professional training is given, advise students concerning specific programs required by the various professional schools. A student who completes successfully six semesters of undergraduate work before entering an accredited professional school may, upon presentation of evidence of satisfactory completion of the first year of professional education, be granted a baccalaureate degree from Memphis State University, provided that the requirements set forth in the preprofessional degree program are met. The advisory committees are as follow:
Pre-Medical- This committee advises students interested in careers in medicine, dentistry, nursing, pharmacy, optometry, veterinary medicine, medical technology, and related fields in the health sciences.
Pre-Law- In general, accredited law schools have not adopted specific requirements for pre-law education; they do, however, emphasize certain courses as being conducive to the development of the broad cultural background necessary for the successful study of law. Students enrolling in The College of Arts and Sciences interested in applying to law
school should see the Assistant Dean for Undergraduate Activities for assignment of a pre-law advisor in one of the several departments.

## TEACHER PREPARATION

Students enrolled in a degree program of The College of Arts and Sciences who wish to prepare themselves for teaching careers in the secondary schools of Tennessee may meet the state certification requirements while pursuing their chosen majors. Students should see the Assistant Dean for Undergraduate Activities for detailed certification requirements.

## DEGREE REQUIREMENTS

## Degrees Offered

The College of Arts and Sciences offers four degrees: the Bachelor of Arts, the Bachelor of Science, the Bachelor of Science in Chemistry, and the Bachelor of Science in Medical Technology.

## Foreign Language Requirements

Specific requirements in foreign language for the degrees offered by The College of Arts and Sciences are as follow: A. BACHELOR OF ARTS AND BACHELOR OF SCIENCE: Twelve semester hours or the equivalent, in one foreign language. B. BACHELOR OF SCIENCE IN CHEMISTRY: German 1101, 1102, 2201 and 2203.
C. BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY: Six semester hours in one foreign language.

A student already having proficiency in a foreign language taught at Memphis State University (attained through high school or college courses, military service, private study, foreign residence, etc.) should enroll in a course at the level for which the student is qualified. This course can best be determined by taking the placement test which is given at the beginning of each semester. (Detailed information is available from the chairman of the Department of Foreign Languages and Literatures.) A student taking the placement test may apply immediately for the hours of credit warranted by the test score. Information pertaining to the charges for placement credit is given in the Fees and Charges section of this catalog. If the student chooses not to take the placement test, enrollment in any course above the beginning one and completion of that course with a grade of Cor better will qualify the student to apply for credit for the preceding courses. In
either case, the student must make written application to the chairman of the Department of Foreign Languages and Literatures (application forms are available from the department). This regulation shall apply only to the lower division, and credit gained in this manner shall not exceed 12 semester hours in any one language.

This regulation will also apply to a student whose mother tongue is not English, with the following modifications: lower-division credit in the native language will be given when the student has demonstrated the English proficiency required for graduation (see Graduation from the University, for details), and has proven proficiency in the native language to the satisfaction of the Department of Foreign Languages and Literatures. The student must make written application to the chairman of the Department of Foreign Languages and Literatures.

## Bachelor of Arts

To qualify for the degree of Bachelor of Arts the student must complete a minimum of 132 semester hours with a quality point average of 2.0 . Of the 132 semester hours required for graduation, at least 42 semester hours must be in courses from the Upper Division. Not more than 42 semester hours in any one subject will be counted toward a degree. Detailed requirements are as follows:
English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106. Foreign Lenguege: 12 semester hours, or the equivalent, in one for eign language.
History: HIST 2601, 2602.
Neturel Science: 3 courses from at least 2 departments; if 2 are from the same department, they must constitute a sequence. Courses from which these must be selected are BIOL 1111,1112 ; CHEM 1051, 1052; or CHEM 1111, 1112; or PSCI 1031, 1032; GEOG 1101, 1102 ; GEOL 1101, 1201 or GEOG 1101 , GEOL 1101 (not more than two courses may be taken in geography and/or geology courses to meet this requirement); PHYS 1111, 1112 , or 1811,1812 , or 2111 , 2112, or 2511, 2512.
Sociel Science: 15 semester hours with no more than 6 semester hours in a single discipline. Courses from which these must be selected are ANTH 1100 or 1300 , and ANTH 1200 or 1400; CJUS 1100 ; ECON 1010, 2110,$2120 ;$ GEOG 1401, 2301, 2311 ; HIST 1301, 1302 ; International Studies 1101, 1102 ; POLS 1100, 1101, 2301, 2501; PSYC 1101, 1102; SOCI 1111, 1112 ; no more than 6 hours from the following courses; JOUR 1700; COMM 1781, 1782.
Methemetics/Philosophy: 9 semester hours as follow: 3 of mathematics plus 3 of philosophy plus 3 of either. The following courses ere acceptable: MATH 1181, 1182, 1211 ; 1212, 1312 or 1321, 1401, 1402, 2291, 2321, 2322, 2401, 2402, 2581; PHIL 1111, 1611.
Fine Arts: Two of the following courses: ART 1101; MUHL 1101; THEA 1551; COMM 1851.
Computer Literacy: This requirement may be satisfied by teking COMP 1200, by e course of study approved by the Dean, or by pessing the University-approved computer literacy examination.
Physicel Education: for details see Graduation from the University. NOTE: The College of Arts and Sciences accepts a maximum of four semester hours in physical educetion activity courses toward the fulfillment of its degree requirements.
Mejor: Completion of requirements for any major offered in The College of Arts and Sciences.
Electives to bring the total to 132 semester hours.

## Bachelor of Science

The Bachelor of Science degree may be awarded only to students majoring in one of the following disciplines: anthropology, biology, chemistry, computer science,
geography, geology, mathematical sciences, physics, or psychology. Students majoring in anthropology, geography, or psychology (for the Bachelor of Science degree) must minor in either biology, chemistry, mathematical sciences, or physics.

To qualify for the degree of Bachelor of Science the student must complete a minimum of 132 semester hours with a quality point average of 2.0. Of the 132 semester hours required for graduation at least 42 semester hours must be in courses from the Upper Division. No more than 42 semester hours in any one subject will be counted toward a degree. Detailed requirements are as follows:
English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103,2104, 2105, 2106. Foreign Language: 12 semester hours, or the equivalent, in one foreign language.
History: HIST 2601, 2602.
Mathemetics: 6 semester hours selected from the following: MATH 1181, $1182,1211,1212,1312$ or $1321,1401,1402$, 2291, 2321, 2322, 2401, 2402, 2581.
Natural Science: One of the following two-semester sequences outside the major field: BIOL 1111, 1112; CHEM 1051, 1052; CHEM 1111,1112 ; GEOG 1101, 1102 ; GEOL 1101, 1201 or GEOG 1101 , GEOL 1101; PHYS 1111,1112 ; or 1811,1812 ; or 2111,2112 , or $2511,2512$.
Sociel Science: 12 semester hours from the following with not more than 6 hours in a single discipline: ANTH 1100 or 1300, and ANTH 1200 or 1400; CJUS 1100 ; ECON 1010 , 2110, 2120; GEOG 1401, 2301, 2311; HIST 1301, 1302;
INTL 1101, 1102; PHIL 1111, 1611; POLS 1100, 1101 , INTL 1101, 1102; PHIL 1111, 1611; POLS 1100, 1101,
2301, 2501. PSYC 1101, 1102; SOCI 1111,1112 no more 2301, 2501; PSYC 1101, 1102; SOCI 1111, 1112 ; no more
than 6 hours from the following courses: JOUR 1700 ; than 6 hours from
COMM 1781, 1782.
Fine Arts: Two of the following courses: ART 1101; MUHL 1101; THEA 1551.
Computer Literecy: This requirement may be satisfied by taking COMP 1200, by a course of study approved by the Dean, or by passing the University-approved computer literacy examination.
Physicel Educetion: for details see Greduetion from the University. (NOTE: The College of Arts and Sciences accepts a maximum of four semester hours in physical education activity courses toward the fulfillment of its degree requirements.)
Major: Completion of the requirements for a major in one of the following disciplines: anthropology, biology, chemistry, computer science, geography, mathematical sciences, physics, or psychology.
Minor: Students majoring in anthropology, geography, or psychology (for a Bachelor of Science degree) must complete a minor in either biology, chemistry, mathematical sciences, or physics.
Electives to bring the total to 132 semester hours.

## Bachelor of Science in Chemistry

To qualify for the degree of Bachelor of Science in Chemistry, the student must complete a minimum of 132 semester hours with a quality point average of 2.0. Of the 132 semester hours required for graduation, at least 42 semester hours must be in courses from the Upper Division. Detailed requirements are as follow:
English: ENGL 1101, 1102 with a minimum grade of $C$; and of the following: $2101,2102,2103,2104,2105,2106$.
Foreign Languege: GERM 1101, 1102, 2201, and 2203.
History: HIST 2601, 2602.
Methematics: MATH 1321, 2321, 2322.
Physics: PHYS 2511, 2512, or 2111,2112 (by permission). Chemistry: CHEM 1111, 1112, 3201, 3211, 3301, 3303 , $3311,3312,3402,3411,3412,3604,4111,4911$, and seven additional semester hours in senior chemistry courses. No more than three credit hours of reseerch may be counted toward the chemistiy requirements.
Sociel Sciences: Three semester hours from one and six semester hours from another of the following areas: ence courses and GEOG 3501, 3502, and 4510), history (excluding HIST 2601 and 2602), philosophy, politicel science, psychology, and sociology.
Fine Arts: One of the following courses: ART 1101; MUHL 1101; THEA 1551.

Computer Literacy: This requirement may be satisfied by taking COMP 1200, by a course of study approved by the taking COMP 1200, by a course of Study approved by the
Dean, or by passing the University-approved computer Dean, or by passing
literacy examination.
Physicel Educetion: for details see Graduation Irom the University. (NOTE: The College of Arts and Sciences accepts a maximum of four semester hours in physical education activity courses toward the fulfillment of its degree requirements.)
Minor: Completion of the requirements for a minor in biology, physics or mathematical sciences.
Electives to bring the total to 132 semester hours.

## Bachelor of Science in Medical Technology

For students interested in careers in medical technology, The College of Arts and Sciences offers a three-year preparatory curriculum, the successful completion of which will qualify them to enter any school of medical technology approved by the American Medical Association Council on Medical Education. After completion of the curriculum in the school of medical technology, the student is eligible for examination and certification by the Registry of Medical Technologists of the American Society of Clinical Pathologists.
The University maintains an affiliation in Memphis with the Schools of Medical Technology of the Baptist Memorial Hospital, Methodist Hospital, and St. Francis Hospital, all of which are accredited. Only those students who enroll in the School of Medical Technology of one of these hospitals can qualify for the degree of Bachelor of Science in Medical Technology from Memphis State University. Students who decide to enter one of these schools after completing successfully the preparatory curriculum, should apply directly to the school of their choice nine to twelve months in advance of the time they wish to enter. After the completion of their clinical year, they may apply for the degree of Bachelor of Science in Medical Technology from this University.

Specific requirements for the preparatory curriculum in medical technology and the additional requirements for those working toward a baccalaureate degree are as follow:
ENGL 1101, 1102 with a minimum grade of $C$; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106.
Foreign Language: 6 semester hours in one language
HIST 2601, 2602
PSYC 1101 or SOCI 1111 or PHIL 1111
PSYC 1102
MATH 1212
BIOL $1111,1112,3070,3500,3730,3800,4440,4444$ CHEM $1111,1112,3201,3211,3301,3302,3311,3312$. PHYS 2111,2112
Two of the following courses: ART 1101, MUHL 1101, THEA 1551
Computer Literecy: This requirement may be satisfied by taking COMP 1200, by a course of study approved by the Dean, or by passing the university-approved computer literacy examination.
Physicel Educetion: see Graduetion Irom the University. (NOTE: The College of Arts and Sciences accepts a maximum of four semester hours in physical education activity courses toward the fulfillment of its degree requirements.)
(Courses strongly recommended are: PSYC 2301, COMM 1311, CHEM 4511 , MGMT 3110 and 4210 )
IMPORTANT NOTE: The preparatory curriculum in medical technology does NOT qualify a student for the three-year preprofessional degree program. Only those students who enroll in the Schools of Medical Technology of the Baptist Memorial Hospital, the Methodist Hos-
pital, or St. Francis Hospital, all located in Memphis, can qualify for the degree of Bachelor of Science in Medical Technology from Memphis State University.

## COURSES NOT APPLICABLE TOWARD B.A., B.S., AND B.S.C. DEGREES

ENGL 1100, MATH 1000 and MATH 1100 , CHEM 1000, CHEM 1100 and CIED 1201, may not be used to fulfill the 132 hour minimum required for degrees offered through The College of Arts and Sciences. However, these courses are included in the total hours earned and in the quality point average.

## DEPARTMENTAL REQUIREMENTS FOR MAJORS AND MINORS

Listed below are the specific course requirements for all majors and minors offered in The College of Arts and Sciences. $A$ minimum grade of $C$ is required in every course applicable toward a major or minor (including corequisites), except in beginning courses and in sophomore English.

Every student should be aware that the mere completion of courses outlined below with a grade of $C$ or better does not guarantee classification as a major or minor in the discipline concerned; the student must be recommended by the chairman of the department in which the major or minor is sought. If, in the opinion of the chairman, the quality of the student's work is not high enough, additional work, the repetition of courses, or other evidences of acceptable scholarship may be required.

## ANTHROPOLOGY

The Major: 30 semester hours in anthropology courses, including ANTH 1100 or 1300, 1200 or $1400,3200,4065$ and 18 additional semester hours, at least 6 of which mus be at the 4000 level.
The Minor 18 semester hours in anthropology courses, including ANTH 1100 or 1300,1200 or 1400,3200 , and 4065.

Honors Program
The Department of Anthropology offers an honors program in anthropology to the superior anthropology student who desires a more intensive approach to and knowledge of the discipline, a deeper understanding of research skills, and an opportunity for original criticism and analysis. To be eligible a student must (a) have the approval of the Departmental Honors Committee, (b) be an anthropology major, (c) have attained cessfully Anthropology 1100 or 1300.1200 or 1400, and one upper-division anthropology course, (e) maintained cumulative grade point average of at least 3.00 in overal studies, ( 7 ) maintained a cumulative grade point aver age of at least 3.25 in anthropology, (g) completion of four honors courses in independent sudy culminating in a or research report) and coursesoutsideat the regular college requirements will be the program and the regular college requirements will be recognized at the commencement ceremony by having thei degreeconferred With Honors in Anthropology. Moreover the students diplomat this. Dotails of the program are Uvailable the Department of Anthropology office

## Biology

The Major; 36 semester hours in biology courses, including BIOL. $1111,1112,3070$; the election of one of the following areas of concentration and the meeting of the specific requirements for that area; and CHEM 1111, 1112,3301 .


3302, 3311 , and 3312. Completion of both BIOL 1111 and BIOL'1112 shall be required before enrolling in any upper division course which is acceptable for a major A student who has either earned credit or advanced placement credit in BIOL 1001 and BIOL 1002 and who later becomes a in BIology major will be required to take BIOL 1111 .
BOTANY: One field course chosen from BIOL 3240, 4225, or 4240; one morphology course chosen from 3220, 3221 3222, 4226; one physiology course either 4231 or 4232 and upper division hours in biology (chosen in conference with the advisor) to bring the total semester hours in biology to 36.
MICRO8IOLOGY: BIOL 3500, 3560; two courses chosen from 4400, 4440, 4444, 4460, 4501, 4560; and upper division hours in biology (chosen in conference with the advisor) to bring the total semester hours in biology to 36 . INVERTE8RATE ZOOLOGY ORENTOMOLOGY: BIOL 3840 two courses chosen from 3800, 3900, 3940, 3960, 3965 4001, 4820, 4920, 4930; and upper division hours in biology (chosen in conference with the advisor) to bring the total semester hours in biology to 36
TOXICOLOGY: BIOL 1110.3030 (or 3730.4231 , or 4232) 4002, 4003, 4570, and either 3050 or 3500; MATH 1321 2321, 4611, 4001; CHEM 3201, 3211, 3604, 4511, 4512 PHYS 2511, 2512. Completion of all requirements for the Bachelor of Science in Biology with a concentration in toxicology allows for the student to declare a second major in physical science in the Department of Chemistry Completion of three additional hours in upper division chemistry courses entitles the student to a double major in biology and chemistry.
VERTE8RATE ZOOLOGY: 8IOL 3700; one morphology course (either 3610 or 3620 ); one physiology course (either 3030 or 3730 ): and upper division hours in biology (chosen in conference with the advisor) to bring the total semester hours in biology to 36 .
The Minor: 18 semester hours in biology courses (including BIOL 1111,1112 ), 7 of which must be upper division hours Completion of both BIOL 1111 and 1112 shall be required before enrolling in any upper division course which is acceptable for a minor. Either 3100 or 4100 may be included in meeting requirements, but not both

## CHEMISTRY

The requirements listed befow are for majors and minors the for Bachelor of Arts or Bachelor of Science degrees: Ior detailed requirements lor the Bachefor ol Science in Chemistry. pro/essiona/ degree.

## CHEMISTRY

The Major: 32 semester hours in chemistry courses, plus related courses, outlined below:
CHEM $1111,1112,3201,3211,3301,3302$ or 3303. 3311 3312 , and sufficient additional upper division semester hours. No more than three credit hours of research may be counted toward the chemistry requirements.
MATH 1321, and two of the following courses: MATH 2321 2322, 4611, COMP 4001
PHYS 2511, 2512 (or 2111, 2112 if approved by the chairman of the Department of Chemistry).
The Minor: 20 semester hours in chemistry courses, including CHEM $1111,1112,3301,3302$ or $3303,3311,3312$, and three or four upper division semester hours.

## PHYSICAL SCIENCE

A major in physical science is suggested for those students whoplan to teach the sciences in high school but do not desire to major in either chemistry or physics.
The Major: 32 semester hours in chemistry and physics courses, including CHEM 1111,$1112 ;$ PHYS 2511, 2512 (o PHYS 2111,2112 ); and edditional upper division hours in chemistry end/or physics courses to bring the total to 32 semester hours.

The Minor: 20 semester hours in chemistry and physics courses, of which at least 8 semester hours must be from the upper division.

## COMPUTER SCIENCE

The Major: 58 to 60 semester hours consisting of MATH 1321 $2321,2701,4241,4613$; COMP 1900, 2010, 3230, 3420 $4040,4150,4160,4270$ and an elective sequence which is a coherent package of 17-19 hours of computer-oriented courses designed by the student and the faculty advisor and approved by the Computer Science faculty. PHYS 2511 and 2512 are strongly recommended for the natural science requirement sequence and PHIL 1611 and ECON 2120 are strongly recommended as part of the social science requirement for the 8.S. degree. This major is offered through the Department of Mathematical Sciences.
The Minor: 21 semester hours in computer science courses. including COMP 1900, 2010, 3230, 3420 and 9 additional upper division semester hours

## CRIMINAL JUSTICE

The Major: 36 semester hours of criminal justice including CJUS $1100,2100,3128,3510,3521$ and 3541 plus 18 additional upper division hours in criminal justice as approved by the departmental advisor.
The Minor: 18 hours in criminal justice courses including CJUS 1100.
Honors Program
Criminal Justice majors or minors who have completed a minimum of 55 credit hours with a cumulative grade point average of at least 3.25 overall and in criminal justice are eligible for the Criminal Justice Honors Program. The program requires 18 hours of honors coursework, 6 hours of which must be taken outside the department. The Criminal Justice Honors Program is designed to offer to superior students a flexible curriculum which encourages the development of an individual's abilities to his or her full potential. The program provides for more intensive study and closer faculty contact than is normally available in standard undergraduate classes. Those students who complete the program and the regular college requir ements will be recognized at the commencement ceremony by having. their degree conferred "With Honors in Criminal Justice. Moreover, the student's diploma and the record at Memphis State University will reflect this. A detailed description of the program and the admission proce

## ECONOMICS

The Major 30 semester hours, including ECON 1010 or 2110, or 2110,2120 (or six hours of Honors Principles), 3310, 3320, 4920, and 15 additional upper division semester hours in economics courses as approved by the department advisor.
The Minor: 18 semester hours in economics courses, including ECON 1010 or 2110,2120 (or six hours of Honors Principles) 3310, 3320, and six additional upper division hours as approved by the department advisor
Honors Program.
All students who receive a grade of 8 or better in ECON 2130 or 2140 are eligible for the honors program. Entry to the program can also be obtained through the recommendation of a member of the faculty to the Economics Departmental Honors Committee. A student must maintain an average grade of at least 3.25 in economics to continue in the program and must have an average grade of 3.5 or better in economics to graduate with honors in economics. Honor students take special courses during the junior and senior years, particularly the honors sections of ECON 3310 and 3320 , and write a senior research paper. Those students who completethe progrem and the regular college requirements will be recognized at the commencement
ceremony by having their degree conferred "With Honors in

Economics." Moreover, the student's diploma and the record at Memphis State University will reflect this. Details of the program are available in the Economics Department office.

## ENGLISH

The Major: 36 semester hours of English, including 12 hours lower division (University requirement) and 24 hours above the 2000 level: 3 hours of British literature (chosen from among $3211,3212,3213,3214,3221,3222,3224,4231$, $4232,4233,4234$ ): 3 hours of American literature (chosen from among 3321, 3322, 4321, 4322); completion of the requirements for one of the following six concentrations (9-12 hours): 8ritish Literature, American Literature, Modern Literature, Language and Linguistics, Creative Writing, or Professional Writing; 6-9 hours of upper division English electives. Students should see English advisers, who will explain the advantages of the various concentrations and assist students in developing an appropriate program.
he Minor: 12 upper division semester hours in English in one of the following areas: Literature, Language and Linguistics, or Writing.
NOTE: Students who wish to satisfy the requirements for both the English major and endorsement to teach English in hıgh the College of Education section of this Catalog.
Students who intend to pursue graduate studies in English are strongly advised to elect courses which will ensure a comprehensive overview of the major figures and movements in 8ritish and American literature and of modern language theory.

Freshman students with high ACT scores are issued invitations to participate in the honors program, which is open to all qualified students during the freshman and sophomore years. During the junior and senior years, it is restricted to English majors; students are eligible to apply for admission to the program of they have a grade point average of 3.25 in their overall studies and in English. Honor students take special courses during the junior and senior years and write a senior research paper. Those students who complete the program and the regular college requirements will be recognized at the commencement ceremony by having their degree conferred "With Honors in English." Moreover the student's diploma and the record at Memphis State University will reflect this. Details of the program are available at the English Department office

## FOREIGN LANGUAGES

The Major: 30 or more semester hours from A and B, below:
A. Courses numbered 1101, 1102, 2201, and either 2202 or 2203 (or their equivalents) in the foreign language or languages in which upper division courses are to be taken. 8. Successful completion of one the following concentrations

1. A single-language concentration in French, German, Latin, Russian*, or Spanish: 18 upper division semester hours.
2. A two-language concentration chosen from french, German, Greek, Italian, Latin, Russian, and Spanish: 24 upper division semester hours with a minimum of 9 semester hours in each language
3. A three-language concentration: All three-language concentrations require prior consultation with and approval of the depart ment chairman. Plans will normally consist of 30 semester hours to include at least 12 upper division semester hours in each of two languages plus approved
course work in a third language. course work in a third language.
NOTE: With the consent of the International Business advisor and an advisor in the Department of Foreign Languages and Literatures, Foreign Languages may also be a collateral major for the B.8.A degree with a major in International Business. Any major in Foreign Languages may earn a collateral minor in International Business. These Foreign Language majors should take the following sequences of upper division courses: Advanced Conversation and Composition ( 6 hours) and the two courses for Commerce given by the individual languages.
Students will have a minimum of six more credits to be taken Students will have a minimum of
from other upper division courses.
The minor in International Business will have at least 18 semester hours within the Fogelman College of Business and Economics. Notice that the courses listed in the 8usiness and Economics section are all upper division and require corresponding lower division courses. Therefore, a minor will include, nor mally, 9 hours from this list and another 9 hours of lower division courses taken as prerequisites.
Please consult with your advisor and with the advisor of the International Business program regarding any matter concerning the curriculum program or graduation requirements. The Minor: 21 semester hours from A and 8, below
A. Courses numbered 1101, 1102, 2201, and either 2202 or 2203 (or their equivalents) in the foreign !anguage in which upper division hours are to be taken.
B. 9 upper division semester hours in one of the following languages: French, German, Latin, Greek, Italian, Russian, or Spanish.
*A concentration in Russian requires a collateral foreign language concentration or a collateral major outside the Department of Foreign Languages and Literatures.

## GEOGRAPHY

The Major: 31 semester hours in geography courses including one course from each of the core subject areas for a tota! of
13 hours and completion of the requirements in one of the 13 hours and completion of the requirements in one of the
following areas of concentration:

Core Requirements
a. Environmental and Earth Science: GEOG 1101 or

1102 (4)
b. Human: GEOG 1401, 3200, or 3430 (3)
c. Regional: Any regional geography (3)
c. Regional: Any regional geography (3)
d. Cartography: GEOG 3502 or 3503 (3)

Concentrations:
GEOGRAPHY: 1B semester hours of geography with a mınimum of 12 upper division hours.
ENVIRONMENTAL. AND EARTH SCIENCE: 18 semester hours of geography with a minimum of 12 upper division hours selected from GEOG 3221,4111,4121,4122, 4131, $4201,4203,4211,4231$, and 4251 .
CARTOGRAPHY: 18 semester hours of geography with a minimum of 12 upper division hours selected from GEOG 3501, 3502, 3503, 4502, 4503, 4510, 4511, 4521, and 4531.

URBAN GEOGRAPHY: 18 semester hours of geography with a minimum of 12 upper division hours selected from
GEOG $3430,3451,4201,4421,4431,4434,4442,4443$. and 4531 .
APPLIED GEOGRAPHY FOR BUSINESS AND PLANNING (33 semester hours): Requirements include GEOG 4431, 4521,4531 , FIR 3130 , and FIR 3310 or 3410 , MKTG 3010 and ACCT 2010; two courses selected from GEOG 3451, 4201,4442 , or 4443 ; one course selected from GEOG 4203,4434 , or 4453 ; and one course selected from GEOG $4502,4503,4510$ or 4511 .
Students in this concentration must satisfy geography major core requrrements by taking GEOG 1101 or 1102 , GEOG 1401 or 3430 , GEOG 3503, and 3 semester hours in any regional course. This concentration applies toward the 8achelor of Arts degree only. Students must include ECON 2110 and 2120 as a part of the Social Science requirement.
The Minor: 20 semester hours in geography courses, at least 9 of which must be upper division hours.

## geology

The Major: 36 semester hours in geology courses, including GEOL 1101, 1201, 3301, 3302, 3303, $3211,3512,3712$, 4622, and additional upper division semester hours as approved by the advisor: CHEM 1111, 1112 ; MATH 1321; PHYS 2511, 2512 or $2111,2112$.
The Minor: A minimum of 18 semester hours in geology courses, including GEOL 1201 . Six of these hours must be selected from upper division courses.

## HISTORY

The Major: 30 semester hours in history courses, including HIST 1301, 1302, 2601, 2602, and 18 additional upper division semester hours. Of the 18 upper division hours any one field (United States, Latin American Ancient/ Syzantine, European, Russian, Far Eastern. African).
The Minor, 21 semester hours in history courses, including HIST 1301, 1302, 2601, 2602, and 9 additional upper division semester hours.
Honors Program
History majors who have attained junior standing, have completed successfully six semester hours of lower division
history, and have maintained a grade point average of at least 3.25 in overall studies and in history courses taken, are eligible for admission to the honors program in history Students admitted to the program will take 12 hours of honors work in history, including History 4003 and History 4996, during their junior and senior years. Those who successfully complete the program and the regular 8.A. requirements will have their degree conferred "With Honors in History." The student's diploma and the record at Memphis State University will be similarly endorsed. A detailed description of the program, together with application forms for admission, may be obtained in the History Department office.

## MATHEMATICAL SCIENCES

The Major: 36 semester hours in mathematical science courses including MATH 1321, 2321. 2322, and 4241 (for departmental honors students. 37 semester hours including MATH 1401, 1402, 2401, and 2402): CHEM 1111 and 1112 or PHYS 2511 and 2512 (for honor students, two approved one-semester courses containing significant mathematical applications, taken in a department other than Mathematical Sciences): and completion of the requirements in one of the following areas of concentration.
MATHEMATICS: MATH 4350; three of the following courses-MATH 4261,4351, 461 and 4411; and 9 upper division semester hours of electives in the mathematical sciences.
APPLIED MATHEMATICS: MATH 3391, 4350,4391, 4392, and 9 upper division semester hours of electives in the mathematical sciences
STATISTICS: MATH 461 1, 4612, 4613,4631, COMP 4001 and 6 upper division semester hours of electives in the mathematical sciences.
The Minor: 18 semester hours in mathematical sciences courses, includıng MATH 1321, 2321, 2322 and 6 upper division hours.

## Honors Program

The Department of Mathematical Sciences offers an honors program in mathematics for the talented student who desires to achieve mathematical maturity at a rate consistent with his own exceptional ability. In the first year of this program, the student will investigate calculus from a theoretical viewpoint. The second year will consist of exploring in depth the fundamental concepts of contemporary mathematics. After completion of this two-year sequence, the participant will be treated as a mature student of mathematics and he will be allowed to register for any course in mathematical sciences at the B.S. or M.S. level (subject to the regulation of the Graduate School oncerning combination undergraduate-graduate scholl s set forth on page five of Policies of the Grad The second wo years of the formal course prerequisites. The second high degree of flexibility and mathematical maturation. Specific requirements are as follow:

1. MATH 1401, 1402, 2401, 2402 (in lieu of 1321, 2321, 2322 , and 4241).
2. At least two approved one-semester courses containing significant mathematical applications, taken in a department other than Mathematical Sciences.
3. A minımum of 21 hours of upper-division courses in Mathematical Sciences, including Senior Honors Seminar.

with e UPA of 3.5 or better in these courses; courses to be determined in consultation with the student's advisor end with the epprovel of the departmental Honors Committee.
Those students who complete the progrem and the regular college requirements will be recognized at the regular college requirements will be recognized at the "With Honors in Merthematical Sciences." Mree conterred student's diploma and the record at Memphis State Uni students will reflact this. versity will reflect this. The Honors Committee of the Deparment of Mathematical Sciences will make all decisions concerning admissions to the program.

## PHILOSOPHY

The Ma/or: 30 semester hours in philosophy cour ses including PHIL $1111,1611,3001,3002,3411$ or 3511 and 15 additional upper division semester hours
The Minor: 18 semester hours in philosophy courses, including PHIL 1111,1611 , and 12 upper division semester hours. In consultation with the coordinator of undergraduate studies in Philosophy, a student may design a minor (18 hours) that applies to the student's major area of study

Honors Program
This program is open to philosophy majors with a 3.0 overall average and a 3.5 average in philosophy. The student will complete, with a grade of B or better, either the philosophy honors seminar (PHIL 3800) or a thesis submitted for credit in PHIL 4891. The thesis topic must be approved by the thesis director before the student registers for PHIL 4891. Those students who complete the program and the regular college requirements will be recognized at the commencement ceremony by having their degree conferred "With Honors in Philosophy." Moreover, the student's diploma and record at Memphis State University will reflect this.

## PHYSICAL SCIENCE (See Chemistry)

## PHYSICS

The Major: 37 semester hours in physics courses, including PHYS 2511,2512 (PHYS 2111,2112 are acceptable but no ecommended). PHYS 3010. 3011, 3111, 3211, 3610, division electives. CHEM 1111 and 1112 ; MATH 1321, 2321. 2322, and 3391, or equivalent courses.
he Minor: 20 semester hours in physics courses, including PHYS 2511, 2512 (PHYS 2111.2112 are acceptable but not recommended), and additional upper division hours.

## POLITICAL SCIENCE

The Major 30 semester hours in political science courses, including POLS 1100, 1101, either 2301 or 2501, and
completion of requirements for one of the concentrations below
POLITICAL SCIENCE: POLS 3100 and a minimum of 18 additional semester hours. at least 15 of which must be upper division hours from four of the following areas:
American Government, Political Theory, International Rela tions, Comparative Politics, and Public Administration. Only 9 semester hours of internship courses may be counted toward the 30 semester hour requirement.
PUBLIC ADMINISTRATION: Either POLS 3211 or 3224, plus 3601, 4101, and a minimum of 12 additional semeste hours in political science, at least 9 of which must be upper division hours. Only 9 semester hours of internship courses may be counted toward the 30 semester hour requirement
NOTE: Any major in Political Science may earn a minor in Urban Studies or a second major in International Studies. The Urban Studies student may take up to five courses from mong. POLS $3100,3224,4221,4224,4225$ and 4230 or 231 The student must complete URBN 4001 to meet the minor requirement in Urban Studies Political Science courses in international relations and comparative government fulfill requirements for both the political science mapor and the major in international relations within the internation al studies program.

## The Minors

POLITICAL SCIENCE: 18 semester hours in political science courses, including either POLS 1100 or 1101 and at least 6 semester hours from the upper division. Only 6 semester hours of internship courses may be counted toward the 18 semester hour requirement
PUBLIC ADMINISTRATION: 18 semester hours in political science courses including POLS 1100, 3601 and 12 additional semester hours to be selected from the following POLS 3211, 3213, 3224, 4213, 4214, 4221, 4224, 4231, $4602,4603,4604,4611$, and 4702 . Only 6 semester hours of internship courses may be counted toward the 18 semester hour requirement
Honors Program
The department offers an honors program to qualified majors who choose to pursue a more sophisticated knowldge of the discipline, a morer deeper understanding of polics. Students who have 9 hours in 30 (with a minimum in Political grade poin aver , Science of 3.25), or can present equivalent qualifications, are invited 10 apply 18 hours of honors course wrom. The program requires 18 hours of honors course work, 12 or more of which must be upper-division Political Science courses, and minimum tinal grade point averages of 3.00 verall, 3.25 Those sudents who complet 25 in honors oursework. Those students who complete he program and the regular coll ge requirement wilt be recognized at the With Honors in Pemony by having their degrees conferred iploma and the record at Memphis State University will
eflect this. Details of the program are available in th Political Science Office

## PSYCHOLOGY

he Major: 33 semester hours in psychology courses, including PSYC 1101, 1102, 2301, 2302, 4101, 4504; at leest one cour se each from the 31 -, the 33 -, and the 35 - series and 6 additional hours at or above the 3000 level.
The Minor: 18 semester hours, in psychology, including PSYo 101, 11022301 (or equivalent) 2302, and 6 edditiona hours at or above the 3000 level

## SOCIOLOGY AND SOCIAL WORK

## SOCIOLOGY

The Major: 30 semester hours in sociology, including SOC $1111,3311,3322,4210$ or 4211 , and completion o requirements in one of the following areas of concentration GENERAL SOCIOLOGY: 18 additional semester hours ir sociology including at least 9 upper division hours
MANPOWER: This concentration is open to the student wht majors in sociology and who is accepted into the inter disciplinary Manpower program. SOCI 3831, 4842, and 12 additional semester hours in sociology; plus MGMT 3110 ECON 3810 , and 3811
SOCIAL RESEARCH: 9 additional semester hours from the ollowing: SOCl $4340,4632,4730,4912$; plus 9 additiona semester hours in sociology
URBAN SOCIOLOGY This concentration is open to the student who elects a double major in Sociology and Urbar Studies SOCI 4420, 4620,4631, and 9 additional semestel hours in sociology; plus 24 additional semester hours from the Urban Studies Curriculum.
The Minors
SOCIOLOGY: 18 semester hours in sociology, includime SOCI 1111.
SOCIAL RESEARCH: 18 semester hours in sociology ncluding SOCI 1111, 3311, 3322, and 9 hours selected from the following: SOCI 4340, 4632, 4730, 4912.
IMPORTANT NOTE: The social research minor may be elected only by students who have majors in the socia sciences.

## SOCIAL WORK

The Mafor: 32 semester hours including SOCI 1111: SWRK 2911, 3901, 3902, 3903, 3904, 4830,4932, 4933, and on pper division course in social research. 8IOL 1111 required.
The Minor: 18 semester hours in sociology and social work courses, including SOCI 1111 , SWRK 2911, 3901, 3902 and six additional upper division semester hours in socia work courses.


# The Fogelman College of Business and Economics 

To Be Filled July 1, 1985, Dean<br>Room 432, Business Administration Building

ACADEMIC PROGRAMS

| Department | Major | Concentration Within Major | Degree Offered (B.B.A.) |
| :--- | :--- | :--- | :--- |
| Accountancy | Accounting |  | Bachelor of Business Administration |
| EconomicsFinance, Insurance, <br> and Real Estate | Business Economics |  | Bachelor of Business Administration |
|  | Finance | Insurance |  |
|  | Real Estate |  | Bachelor of Business Administration |
| Management | Management | (1) General Management <br> (2) Production Management <br> (3) Personnel Administration and <br> Industrial Relations | Bachelor of Business Administration |
| Marketing | Management Information |  | Bachelor of Business Admintration |

†In the B.B.A degree, Foreign Languages may be used as a collateral or second major to accompany International Business

## PURPOSE

The function of The Fogelman College of Business and Economics is to provide the basic education necessary to prepare a person to enter the profession of business. A significant characteristic of the college is that it provides for concentration in the basic areas of economics and business, not as a substitute for, but as a part of a broad liberal education. From forty to sixty per cent of the course work taken for the Bachelor of Business Administration degree (a required minimum of 40 per cent) is taken in such areas as the humanities, the natural and physical sciences, and the social sciences.
The undergraduate and graduate programs of the college are fully accredited by the American Assembly of Collegiate Schools of Business.

## Areas of Professional Training

The Fogelman College of Business and Economics offers a wide selection of general and specialized fields, each of which has programs designed to prepare students for a variety of careers:

CAREERS IN ACCOUNTANCY: Accounting is a vital activity in any business. The increased complexity of financial records resulting from federal regulations and the expanded use of automation necessitates a highly technical background for persons who prepare financial reports. The Department of Accountancy administers the testing program of The American Institute of Certified Public Accountants, the national scope of which enables students to check their individual ratings with national averages. Graduates with a major in accounting are qualified to take the Certified Public Accountants' examination in Tennessee; students desiring a career in public accounting are encouraged to intern with a public accounting firm in their senior year.

CAREERS IN ECONOMICS: A sound understanding of our economic system is essential for today's businessman. In addition, business employs the professional economist for forecasting and explaining the effect of changing economic variables. Many economists are employed by government for comparable reasons. Training in economics is designed to increase awareness of economic problems and encourage the student to analyze alternative solutions.

CAREERS IN FINANCE, INSURANCE, AND REAL ESTATE: Due to the greatly increased recognition given to managing the financial operations of a business, with its increased complexity and newer techniques, considerable demand has developed for those skilled in managing the financial flows of a business.

The risk factor involved in both business and life is beyond man's control. To meet this challenge courses in insurance can be highly rewarding for the college graduate. The department offers preparation for careers in property insurance, life insurance, and risk management.

The ever increasing growth in population, with a constant supply of real estate, demands that the businessman have a working knowledge of real estate problems. Courses are offered to prepare students for both private practice and to function as an integral part of a business organization.

CAREERS IN MANAGEMENT: The effective manager of today must have competence in many disciplines, an understanding of a wide variety of relationships and the ability to analyze evolving management requirements.

Effective adaptation of management to such emergent conditions as the con-
tinued growth of science and technology, population, and large scale organization demands a thorough knowledge of management process theory.

The management programs of study are designed to provide professional preparation in the management of business and economic affairs. Opportunities are increasing, as well, in governmental agencies, foundations, hospitals, and other types of organizations.

The Management Information Systems program is intended to produce individuals whose knowledge of business systems, computer systems, and systems documentation will allow them to design and select that information necessary for effective decision making in an organization. It is also intended to provide sufficient background to enable professional growth in a rapidly expanding field.

CAREERS IN MARKETING: The Department of Marketing provides an educational experience for those who are interested in such areas as retailing, wholesaling, industrial marketing, purchasing, advertising, sales management, agrimarketing, transportation and logistics, and marketing research. Careers in marketing provide a high degree of freedom, mobility, security, challenge, and a high level of monetary reward.

Students who wish to teach marketing (distributive education) in high schools, technical institutes, and junior colleges should minor in Distributive Education in The College of Education. For certification requirements, see Teacher Certification in The College of Education section.

CAREERS AS PROFESSIONALSECRETARIES, OFFICE MANAGERS, LEGAL ASSISTANTS, AND LEGAL ADMINISTRATORS: The value of a secretary, either man or woman, with a university degree is receiving increasing recognition by business executives; the same thing is true in the field of office management. Legal assistants and legal administrators are also in demand. Thorough training in both fields is provided by the Department of Office Administration.

CAREERS IN BUSINESS EDUCATION: In cooperation with The College of Education, The Fogelman College of Business and Economics assists in the preparation of students to teach business subjects in the secondary schools. A student with a major in any one of the six departments of the college can qualify for a high school teaching certificate by completing the certification requirements as outlined in the description of programs for The College of Education.

CAREERS IN INTERNATIONAL BUSINESS: The Fogelman College of Business and Economics, with the cooperation of the Office of International Studies, offers an interdisciplinary program leading to the Bachelor of Business Administration degree with a major in international business. The International Business Program provides the students with broad theoretical and practical skills that will prepare
them to meet challenges of a career in an international business field. Students will, when possible, be afforded the opportunity of working in an international company, in this country or abroad, in order to acquire practical, first-hand knowledge of international operations.

## The Pre-Law Curriculum

A student enrolled in The Fogelman College of Business and Economics who wishes to be prepared for entrance to law school will qualify for the Bachelor of Business Administration degree. Any major in The Fogelman College of Business and Economics may be selected, and the regular program for that major, as outlined in the Catalog, should be followed.

## Honors Program

## ADMISSION

Lower Division: Incoming freshmen who score at least 26 on the ACT or its equivalent on other tests are invited to participate and are eligible to enroll in the designated honors sections of this College's lower division courses.

Transfer or students presently enrolled in Memphis State University are eligible to enroll in the designated honors sections of this College's lower division courses if they have a minimum 3.00 grade point average or the recommendation of a faculty member.
Upper Division: To be eligible to enroll in the designated honors sections of this College's upper division courses, students must have a minimum 3.25 grade point average in course work taken in the Fogelman College of Business and Economics and be recommended by a faculty member.

## RETENTION

The participating honors student must maintain a minimum 3.00 grade point average in lower division and upper division honors courses and have a minimum 3.25 grade point average in all courses taken in the Fogelman College of Business and Economics in order to continue in the College's Honors Program.

## REQUIREMENTS

In order to qualify for "Honors in Business"', in addition to an Honors Thesis, a student must successfully complete a minimum of 18 semester hours from the following:

1. No more than 6 hours from Honors Sections in: ACCT 2010, 2020; ECON 3310, 3320; MGMT 2710, 2711,2750 ; or ECON 2130, 2140; MATH 1401, 1402. 2. At least 12 hours from Honors Sections in: ECON 4111 ; FIR 3011, 3130, 3410; MGMT 3110, MGMT 4710; MKTG 3010; OFAD 3510.
In rare circumstances, additional contract work and enrollment in a non-honors section of a required upper division course may be accepted as upper division honors credit. The contract work must have the
prior approval of the College Honors Committee.
2. Must complete honors course work in at least 3 disciplines (e.g., Accounting; Economics; Finance, Insurance, and Real Estate; Management; Marketing; or Office Administration).
3. No more than nine (9) hours in any one discipline may count toward the 18 hours of honors course work.
4. A minimum grade of $B$ is required in each honors course in order for it to count toward fulfilling the honors course requirement, but regular credit for the course will be earned if the grade is lower than a B.

## THESIS

During their senior year, prospective honors graduates must complete successfully an honors thesis, which in addition to the 18 hours of honors course work, will qualify them to graduate "With Honors in Business". The honors thesis may result from a senior seminar (e.g., ECON 4920), or an independent study course (e.g., ECON 4996, UNHP 4300). Students, however, may elect to write a thesis without receiving formal credit toward graduation.
Students will select a major advisor and one other faculty member to serve as members of their thesis committee. The College Honors Committee will also designate a representative to serve as a third member of a student's thesis committee. Students must submit a thesis proposal, signed by their major advisor and the other two committee members, to the College Honors Committee for approval. Upon completing the thesis, the Thesis Committee will recommend, by majority vote, whether to accept or reject a student's thesis.

## CERTIFICATE OF ACHIEVEMENT

Students who complete a minimum of 12 hours in Honors course work with a minimum of 3.25 grade point average and a minimum of $B$ in each of the Honors courses will receive a Certificate of Achievement.

## DESIGNATION OF "WITH HONORS IN BUSINESS"

Students who complete 18 hours (meeting the restrictions listed) with an acceptable Honors Thesis and a minimum 3.25 grade point average in all courses taken in the Fogelman College of Business and Economics, and in all Honors courses taken in this College, with a minimum overall grade point averge of 3.00 will have earned the designation of "With Honors in Business" which will appear on the transcript and diploma.

## ORGANIZATION OF THE COLLEGE

The Fogelman College of Business and Economics comprises six academic departments: Accountancy; Finance, Insurance and Real Estate; Economics; Man-
agement; Marketing; and Office Administration. These departments offer a variety of majors and minors, the detailed requirements for which are listed later in this section with departmental requirements. The interdisciplinary International Business Program centered in this college offers an undergraduate major in International Business; requirements are listed in the section pertaining to departmental requirements. In addition there are two research departments: Bureau of Business and Economic Research and Center for Manpower Studies.

## Academic Advising

Every student entering The Fogelman College of Business and Economics will be assigned an advisor by the college's Advising Office (BB 357). The advisor will assist the student in the selection of appropriate courses, and provide the opportunity for meaningful discussion regarding career goals, past academic experience and future academic growth and progress as it relates to the student's development. This assistance, however, does not in any way relieve the student of the primary responsibility of studying the Catalog and fulfilling all the requirements for the degree.

## Intent to Graduate

Intent to graduate forms are filed with the Graduation Analyst in The Fogelman College of Business and Economics (BB 357). Students are requested to schedule an appointment before the established application deadline published in each current Catalog or Schedule of Classes. Deadlines are strictly enforced. At this time, an audit of the prospective graduate's academic record is conducted, and the applicant will be provided with an official graduation agreement indicating the remaining degree requirements.

## RESIDENCE <br> REQUIREMENTS

Residence requirements for a degree in business administration are as follows: (1) the senior year must be completed at Memphis State University, (2) at least 33 hours of upper division business courses must be taken at Memphis State University, and (3) 12 of the 33 upper division business administration hours must be in the major field.

A student transferring credits from a two-year (lower division) collegiate institution must complete a minimum of 60 semester hours in an accredited senior institution.

MINOR. In order to earn a minor in this college, a transfer student majoring in one of the other colleges of the University or in this college must earn at Memphis State University at least 6 upper division business administration hours of the total number of hours required for that minor.

See University Residence Requirements in the Graduation from the University section.

## TRANSFER CREDIT

The official evaluation and acceptance of transfer credit is the responsibility of the Transfer Affairs section of the Office of Admissions. The Undergraduate Advising Office (Room BB357) of the Fogelman College of Business and Economics, however, will be happy to answer inquiries regarding the applicability of transfer course work for the completion of the B.B.A. degree.

If a student transfers credit in required business courses which are classified as upper division in this college, but were taken as lower division credit, or taken at a two-year (lower division) institution, these courses must be repeated or validated by examination.

Each transfer student must: (1) have completed all required lower division business administration courses with a minimum grade of $C$ in each; (2) have a minimum quality point average of 2.25 in all required lower division business administration core courses and in MATH 1211 (College Algebra); (3) have accumulated 55 hours of course work including the required 12 semester hours of English, Math 1211 and 1312 and the lower division business administration core; (4) make application for admission to upper division business administration course work and for admission to business administration major programs (application forms may be obtained from the Office of the Assistant to the Dean for Undergraduate Programs); and (5) maintain a minimum quality point average of 2.25 in all required business administration course work taken at Memphis State University.

## B.B.A. DEGREE REQUIREMENTS

1. To qualify for the Bachelor of Business Administration (B.B.A.) degree, the student must complete a minimum of 132 semester hours with a minimum overall quality point average of 2.00 and must meet additional quality point average requirements described below. (The Office Administration major with a concentration in Legal Office Management requires 139 semester hours.)
2. A minimum quality point average of 2.25 is necessary for all required lower division and upper division business administration core courses and in the required mathematics course. The required lower division courses are: ACCT 2010, 2020; ECON 2110,$2120 ;$ MGMT 1010 (if taken), 2710, 2711, 2750; and MATH 1211.
3. A minimum of $40 \%$ ( 53 hours) of the 132 hours required for the degree must be from outside the College (except for ECON 2110 and 2120 ), and $40 \%$ ( 53 hours) of the 132 semester hours required must be from within the College.
4. A minimum grade of $C$ must be earned for each required course in the lower division and upper division business administration core curriculum and in each course required for the major and/or minor. (Transfer students are referred to the section entitled Transfer Credit.)
5. B.B.A. students may apply no more than four semesters hours of physical education activity courses to the minimum degree requirements of 132 semester hours.
6. All courses used to satisfy specific degree requirements of this college must be taken on a "Ietter grade" OR "credit by examination" basis. Hours earned on a "credit/no credit" basis are accepted only in courses which are designated as electives in the student's degree program. Courses taken on an "audit" basis cannot be used to satisfy college requirements.
7. The computer literacy requirement will be meet by successfully passing MGMT 2750(Introduction to Management Information Systems with Computer Applications) and other required Business Administration core courses.

## General Requirements

The college curriculum is organized into a lower division and an upper division:

THE LOWER DIVISION (LD) comprises the freshman and sophomore years, the first four semesters of university work. Courses offered in the lower division are numbered from 1000 through 2999, and the student must register consistently for all lower division requirements until they are completed.

THE UPPER DIVISION (UD) comprises the junior and senior years of undergraduate work; courses offered in the upper division are numbered 3000 through 4999.

Any student seeking a degree in the Fogelman College of Business and Economics must: (1) have completed all required lower division business administration courses with a minimum grade of $C$ in each; (2) have a minimum quality point average of 2.25 in all required lower division business administration core courses and in MATH 1211; (3) have accumulated 55 hours of course work including the required 12 semester hours of English, Math 1211 and 1312 and the lower division business administration core; and (4) make application for admission to upper division business administration course work and for admission to business administration major program. Application forms may be obtained from the Office of the Assistant to the Dean for Undergraduate Programs.

Any exception to the above requirements must be granted by the Dean of the Fogelman College of Business and Economics or the Assistant to the Dean for Undergraduate Programs.
I. NON-BUSINESS CURRICULUM (53 hours minimum)
English ( 12 yours): ENGL 1101, 1102 with minimum grade of C. and two of the following ENGL 2101, 2102, 2103, 2104. 2105. or 2106.

History ( 6 houra): HIST 2801, 2602 (U.S. History). (HiST 3900 - Tenneasee History may be substitured for one of the U.S. Hiatory courses.)
Natural/Physical Sclence (with leb) (6 hours minimum): although the science courses required to fulfill this requirement do not have to be in the same discipline, eech musi have laboratory experience. Studenta mejoring in Marketing with a concentration in Agrimarketing are required to take Biology and/or Chemistry
Mathometics (6 hours): MATH 1211 (Coilege Algebre) with a minimum grade of C and MATH 1312 (Elementary Celculus). Humanities (3 hours): one of the foilowing - ART 1101 (Introduction to Art), MUHL 1101 (Music Apprecietion). THEA 1551 (Introduction to Thearre). HiST 1301 or 1302 (Development of World Civilization I or Ii). PHIL 1111 (Introduction to Philosophy), or Foreign Language.
Social Science ( 3 hours): one of the following - ANTH 1400 (Urban Anthropology of Contemporary Americel. GEOG 1401 Introduction to Human Geography). POLS 1100 (American Government), PSYC 1101 (Generel Psychology). or SOCI 1111 (Introduciory Sociology).
Speech (3 hours): one of the following - COMM 1211 (Voice end Ariculation). COMM 1311 (Public Speeking), or THEA 1411 (Basic Orel Interpretation).
Economics ( 6 hours): ECON 2110 (Introduction to Mecroeconomics), ECON 2120 (introduction to Microeconomics) with a minimum grade of C in each course.
Physical Educetion fiwo semesters of Physicel Education activity courses): Only 4 semester hours of physicai activity courses). Onion activity mey be counted toward the minimum of 132 houre required for the B B. A.
Non-Business Electlves (lower division or upper division to bring the total of non-business hours eerned to 53).

## II. BUSINESS CORE <br> CURRICULUM

Lower Division (18-19 hours)
A minimum grade of $C$ is required in each of the following:
MGMT 1010 Introduction to Business (3) FRESHMAN ONLY
NOTE: If teken by atudent with 25 or more hours, credit will not count for B.B.A degree.
MGMT 2710 Buainess Stetistics (3)
MGMT 2711 Business Statiatica II (3)
MGMT 2750 Management Information Systems with Compuier Applicetions (3)
ACCT 2010 Fundamentals of Accounting I (3)
ACCT 2020 Fundamentala of Accounting II (3)
ACCT 2720 Accounting Lab (1) (required of Accounting majora and minors only)

## III. BUSINESS CORE CURRICULUM

Upper Division (24 hours)
A minimum grade of $C$ is required in each of the following:
ECON 4111 Managerial Economics (3)
FIR 3011 Business Law (3)
FIR 3130 Legal. Social, and Political Environment of
Businass (3)
FIR 3410 Business Finance (3)
MGMT 3110 Organization and Management (3)
MGMT 4710 Business Policy (3) (Course to be taken last or
next to last semester before graduation)
MKTG 3010 Principles of Markering (3)
OFAD 3510 Busuness Communications (3)
(Transfar students are referred to the section Trensfer Credit.)

## IV. THE MAJOR

Each student, with the assistance of an advisor in the College, not later than the beginning of the junior year, will select a major and if available an area of concentration within the major. The specific courses required by each department for the satisfaction of its major are listed in the section that follows.

## V. GENERAL ELECTIVES

Lower division or upper division courses to bring the total to 132 semester hours for the degree.

## VI. COURSES NOT APPLICABLE TOWARD B.B.A. DEGREE

ENGL 1100, MATH 1000, and MATH 1100 may not be used to fulfill the 132 hour minimum required for the B.B.A. degree although they carry college credit and are included in the total hours earned and in the cumulative quality point average.

## VII. THE MINOR

A student majoring in The Fogelman College of Business and Economics is not required to have a minor; however, such an option is available.

A student majoring in one of the other colleges of the University may take a minor in one of the departmental areas. (See Residence Requirements for The Fogelman College of Business and Economics.)

## DEPARTMENTAL REQUIREMENTS FOR MAJORS AND MINORS

## Department of Accountancy

The objective of the baccalaureate program with a major in accounting is to provide basic conceptual accounting and business knowledge as a foundation for accounting career development. An accounting major or minor must have a grade of C or better in every course attempted in the Department of Accountancy.

## ACCOUNTING

The Mejor: ACCT 2410 and 25 upper division semes ter hours in eccounling coursea as foliow
ACCT 3110 and $3120,3310,3510,4240,4460,4720$ (Laboratory): choice of two of the foliowing: ACCT 4210, 4310, $4410,4520,4540,4610$

## The Minor:

For studants whose major is in another college of the Univeraliy: ACCT 2010, 2020, $2410,3110,3120,3310$. 4720. One of the following: $3510,4240,4450$

For students whose major is in another departmant in tha Fogalman Coliega of Business and Economics: ACCT 2010, 2020, $2410,3110.3120,3310.3510,4720$.

| FRESHMAN YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| ENGL 1101 | 3 | ENGL 1102 | 3 |
| Natural Science | 4 | Natural Science | 4 |
| Humanites | 3 | MATH 1312 | 3 |
| MATH 1211 | 3 | HIST 2601 |  |
| -Social Science | 3 | - ${ }^{\text {Speech }}$ | 3 |
| Phys Ed | 2 | Phys Ed | 2 |
|  | 18 |  | 18 |

## SOPHOMORE YEAR

| ACCT 2010 | 3 | ACCT 2020 |
| :--- | :--- | :--- |
| ENGL 210- | 3 | ACCT 2410 |
| ECON 2110 | 3 | ECON 2120 |
| MGMT 2710 | 3 | 3 |
| MGMT 27ective | 3 |  |
| HIST 2802 | 3 | (non-business) |
|  | 3 | MGMT 2711 |
|  |  | ENGL 210- |

## JUNIOR YEAR

| ACCT 3110 | 3 | ACCT 3120 | 3 |
| :---: | :---: | :---: | :---: |
| ACCT 3310 or |  | ACCT 3510 or |  |
| 3510 | 3 | 3310 | 3 |
| FIR 3011 | 3 | FIR 3130 | 3 |
| FIR 3410 | 3 | MGMT 3110 | 3 |
| MKTG 3010 | 3 | Elective (business | 3 |
|  |  | or non-business) |  |
|  | 15 |  | 15 |

## SENIOR YEAR

ACCT 4720
ACCT 4450
ACCT Elect
OFAD 3510
Elective (business Elective (business
or non-business)

АССТ 4240
ACCT Elect
MGMT 4710
ECON 4111
ECON 4111
Elective (buainesa
Elective (business
or non-business)

16
are encouraged to take PSYC 1101 or SOCI 111
*-Students ere encouraged to take COMM 1311.

## CPA PREPARATION PROGRAM

The CPA Preparation Program is a nondegree series of credit courses in accounting designed for those who have a baccalaureate degree in some other field and desire to become qualified to take the CPA exam or to enter a graduate program requiring all or some of these courses. The courses are offered two evenings per week, and each course is completed in seven weeks.

Interested candidates for the Program should contact the Program Director, Department of Accountancy in The Fogelman College of Business and Economics.

## FIVE YEAR DEGREE PROGRAM IN ACCOUNTING

The Department of Accountancy also offers a five-year professional accounting program resulting in the awarding of the B.B.A. degree and Master of Professional Accountancy (M.P.Acc.) degree upon the satisfactory completion of five years of study.
Admission Stenderds to Five-Yeor Progrem: a atudent may apply upon the completion of the lower division core in buainese required for a major in the Fogelman College ol Busıness and Economics if an overall grade point average of 2.5 and an average of 3.0 in accounting courses has been earned.
Required Core Courses in the Upper Division: the required core courses in the upper division for the 8.8.A.; PHIL 4513. ECON 4120 or FIR 4440; and two of the following: MGMT 3750. $3760,4790$.

The Mejor in Accounting: the 28 semester hours in the Accounting major listed above.
Retention Stenderds: an overall grade point average of 2.75 with an average of 3.25 in accounting courses by the end of the sixth semeater; an overali grade point average of 3.0 with an average of 3.5 in accounting courses by the end of the eighth semester
Admission to Fifth Yeer of Study: upon completion of all of the above requirements the student is eligible to be admitted to the fifth year of study in graduate school upon attaining a score of 450 or higher on the Graduate Admission Test (GMAT). In the event that a student does not elect to enter the fifth year of study, the B.B.A. degree in Accounting wili be awarded to those who have completed all of the above requirements for graduation.
Graduete Accounting Requirements: see the Memphis State University Greduete Cetslog.

## Department of Economics

The Department of Economics has two major objectives: to function as a service department for other departments in The Fogelman College of Business and Economics, as well as the other colleges of the University, and to prepare students majoring in economics by providing a solid foundation in the principal areas of economics.

In general, the department attempts to give economics majors a solid background in economic theory, quantitative economics and applied economics.

## ECONOMICS

The Major (B.B.A.): A minimum of 21 upper division semester hours in courses as follows:
ECON 3310, 3320, 4920 and four additional upper-division courses selected with the approval of the department advisor.
The Mejor (B.A., College of Arts and Sciences): The student is required to meet the requirements for the Bachelor of Arts degree plus these specific major requirements:
ECON 1010 or 2110,$2120 ; 3310,3320,4920$, and five edditional upper-division courses, for a total of 30 semester hours, selected with the approval of the department advisor.
The Minor:
For students whose mejor is in enother college of the University: 18 semester hours in economics courses, including ECON 1010 or $2110,2120,3310,3320$, and 6 additional upper division hours in courses as approved by
the department advisor. For students whose mejors ere in The Fogelmen College of Business end Economics: Nine additional upper division hours in economics approved by the department advisor, including 3310 and 3320 .
Honors Program:
All students who receive a grade of B or better in ECON 2130 or 2140 are eligible for the program. Entry to the program can also be obtained through the recommendation of a member of the faculty to the Economics Departmental Honors Committee. A student must maintain an average grade of at least 3.25 in economics to continue in the program and must have an average grade of 3.5 or better in economics to graduate with honors in economics. Honor students take special courses during the junior and senior years, particularly the honors sections of ECON 3310 and 3320, and write a senior research paper. At commencement they are awarded the special distinction "with honors in Economics". Details of the program are available at the Economics Department office.

## Department of Finance,

 Insurance, and Real EstateThe primary objective of the department is to provide the basic concepts, principles and analytical tools essential for business decisions in the fields of finance, insurance and real estate. The department curriculum is designed to provide a broad background for effective functioning within each discipline or in related business and governmental fields. More specifically:
(1) Finance majors study the environment, theory and techniques of decisions on the acquisition and allocation of funds by business firms, including the applied areas of investment and financial institutions.
(2) Insurance majors study risk theory, risk management, life, health, and proper-ty-liability insurance and their relationships to the other disciplines in business administration. The insurance program is also designed as preparation for parts of the CPCU and CLU examinations.
(3) Real Estate majors will be provided the basic theories and practices of urban land use and economics. Exposure will be to real estate principles, valuation, investment analysis and finance, legal environment, and development.

## FINANCE

The Major: A minimum of 21 upper division semester hours in courses es follows:
FIR 3710, 3720, 4440, 4610, and nine additional upper division hours in courses selected with the approval of the edvisor.
The Minor:
For the student whose mejor is in The Fogelmen College of Business and Economics: Nine upper division hours in finence epprovd by the department chairman.

For the student whose mejor is within enother college of the University: ACCT 2010 and 2020; ECON 2110,2120 , 3610; FIR 3410, 3710 . Three additional upper division hours approved by the department chairman.

## INSURANCE

The Major: A minimum of 21 upper division semester hours in courses, as follows:
FIR $3810,4810,4820$, and a minimum of twelve additional upper division hours in courses selected with the approval of the advisor.
The Minor:
For the student whose mejor is in The Foglemen College of Business end Economics: FIR 3810 and six additional upper division hours in insurance approved by the department chairman.
For the student whose mejor is within enother college of the University: ACCT 2010; ECON 2110 ; FIR 3011,3130 , 3810, and six additional upper division hours in insurance approved by the department chairman.

## REAL ESTATE

The Major: A minimum of 21 upper division semester hours in
courses, as follows:
FIR $3310,4310,4320,4340,4350$, and a minimum of 6 upper division hours in courses selected with the approval of the advisor.
The Minor:
For the student whose mejor is in The Fogelmen College of Business end Economics: FIR 3310 and six additional upper division hours in real estate approved by the department chairman.
For the student whose mejor is within enother college of the University: ACCT 2010; ECON 2110 ; FIR 3011, 3130 , 3310, and six additional upper division hours in real estate approved by the department chairman.

## Department of Management

The effective manager of today must have competence in many disciplines, an understanding of a wide variety of relationships, and the ability to analyze evolving management requirements. Regardless of the functional speciality, the professional manager must also be a leader of people who knows how to put together and motivate groups of people serving the goals of the organization.

Effective adaptation of management to such emergent conditions as the continued growth of science and technology, populations, and large scale organization demands a thorough grasp of management process theory including planning, organizing and motivation, and controlling of operations.

The management curricula include the following areas: (1) general management; (2) personnel administration and industrial relations; and(3) production management.

Students selecting the area of general management will focus on integration of operations and environments. This option is designed for those students who desire a program which allows for flexibility in the choice of careers in management.

The personnel administration and industrial relations option covers the traditional areas of personnel, collective bargaining, labor legislation, wage and salary administration. Also developments in the behavioral sciences are included in this area.

The production and operations management option is concerned with planning and operations systems to yield products and services. Production operations in non-manufacturing industries are considered as well as those of manufacturing firms.

The Management Information Systems curriculum provides professional training
in business systems, computer systems, and systems documentation that will allow individuals to design and select that information necessary for effective decision making in an organization.

## MANAGEMENT

The Major: a minimum of 21 upper division semester hours, including M GMT 3510, 4420, and courses as listed in the following concentration areas:
GENERAL MANAGEMENT: MGMT 3215, 4790; ACCT 3010. The remaining 6 hours of thee 21 hours minimum for the major may be selected from any upper division semester hours in Management or any 3 upper division hours in Management and one of the following courses or two of the ACCT 3310; ECON 3610; FIR 4440; MKTG 3140, 3610.
PERSONNEL ADMINISTRATION AND INDUSTRIAL RELATIONS: MGMT 3215, 4210, 4220, 4230, and 4240.
PRODUCTION MANAGEMENT: MGMT 4510, 4511 and at least one of the following is required: TECH 4462, 4464, 4466. The remaining hours of the 21 hour minimum required for the major will be selected from the following courses: MGMT 3760; ACCT 3010, 3310; ECON 4120 ; MKTG 4220.
The Minor:
For the student whose mejor is in The Fogelman College of Business end Economics: MGMT 3510, 4420, and 3 additional semester hours of upper division coursework in management.
For the student whose mejor is within enother college of the University: MGMT $3110,3510,4420$, and 9 additional semester hours, at least 6 of which must be in management and the remainder in The Fogelman College of Business and Eeonomics.

## MANAGEMENT INFORMATION SYSTEMS

The Major: MGMT 2760, 2780 and 18 upper division semester hours in Management courses as follows: MGMT 3750 . $3760,3780,4755,4780,4785$.

## Department of Marketing

The objective of the Department of Marketing is to provide a broad view of the marketing process and to develop an understanding of all the factors involved in the marketing of goods and services. Students may select from two majors:
(1) Marketing majors may choose from among five areas of concentration as outlined below. Emphasis is placed upon the practical application of marketing concepts. This approach teaches entry level skills while preparing for future advancement to top positions in marketing management.
(2) Sales/Marketing majors are taught practical and theoretical sales and sales management skills. Particular emphasis is placed on interpersonal communication techniques and on the practical application of the marketing concepts as they apply to sales and sales management.

## MARKETING

The Major: a minimum of 21 upper division semester hours in marketing courses (Agrimarketing concentration requires 24 upper division semester hours), as follows:
MKTG 3012, 3610, 4080, 4901. One of the marketing concentrations listed below ( 3 hours must be 4000 level). ADVERTISING (Marketing-Communications) Mass commu nication media, advertising agencies, advertising depart ments, advertising decisions, and other advertising activ ities: MKTG 3140, 3170, 4150.
AGRIMARKETING: (12 hours) Careers in marketing in the agribusiness industry. MKTG 3710, 4720, 4750, and FIR 3770. Note: agrimarketing concentration requires one less upper division 8A elective and six hours of natural science with lab from among the following courses: 8IOL 1001, 1002, $1111,1112,3050$; CHEM 1051, 1052, $1111,1112$. Students in this concentration are encouraged to select courses in Geography and/or Geology as general electives. GENERAL MARKETING: Allows a concentration in marketing without specialization. (A minimum of 9 semester hours, at least 3 hours at the 4000 course level): MKTG $3140,3320,3620,4410,4440,4530$.
RETAILING: Background in the operetion and management of reteil establishments: MKTG 3320, 4330, and one of the following: 4440,4910,4911, or a course approved by major professor or department cheirman.

TRANSPORTATION ANO LOGISTICS Beckground for cereers with trensportetion compenies, industrial firms or governmental agenctes Interfaces emong the nation's trensportation system, the firm's logistics network, and public policy Totel of nine hours selected from these public policy Totel of nine hours selected from these
courses 3.6 hours from: MKTG 3620,3630 . plus: $3-6$ courses 3.6 hours from: MK
hours from MKTG 4610, 4620,4692
The Minor
For the student whosa mejor is in another college of the University: ACCT 2010. ECON 2110 , end etther (1) MKTG 3010. 9 semester hours from the merketing core (MKYG $3012,3610,4080,4901$ ): end 6 hours from one of the 3012, 3610, 4080, 4901): enting areas of concentretion upon approval of the merketing aress of concentretion upon approval of the
depertment chearmen OR (2) MKTG 3010; 6 hours from the depertment charmen OR (2) MKTG 3010; 6 hours from the
following courses: MKTG 3012,3610, 4080; ond eny 9 hours of marketing courses epproved by the depertment chairmen.
For the student whose mejor is in The Fogelman College of Businese and Economics: Twelve(12) hours of merketing courses epproved by the depertment chairmen.

## SALES/MARKETING

The Mejor e minimum of 21 upper division semester hours in merketing courses es follows: MKTG $3012,3410,3610$, 4410.4080 .4901 , end one (1) of the following courses MKTG 4210, 4430, 4440. Note: The following non-marketMKTG 4210, 4430,4440 . Note: The following non-marketing courses ere recom 2322. ENGL 3602.
The Minor
For the student whose mejor is in enother college of the University: ACCT 2010. ECON 2110 , MKTG 3010, 3012 , 3410. 4410 , and six semester hours from the following courses MKTG 4210, 4430, 4440
For the student whose mejor is in the Fogelmen College of Business end Economics: MKTG 3410, 4410, and six semester hours from the following courses: MKTG 4210 , $4430,4440$.

## Department of Office <br> Administration

The objectives of the Department of Office Administration are to provide a broad background for an executive secretarial role in business; to provide the opportunity for sufficient competency to enter and advance in the area of office management; and to provide the opportunity for the specialization and certification for the graduate to teach business education in the secondary schools.

The student planning to major in office administration will take in the freshman year OFAD 1210 and 1220, Elementary Typewriting and Intermediate Typewriting. If the student has had previous training in typewriting, 1210 will be omitted and replaced with 1220 and a higher numbered typewriting course, or one semester of an approved elective.

The student planning an area of concentration in office administration-secretarial will take in the sophomore year OFAD 2120 and 2130 , Fundamentals of Shorthand and Intermediate Shorthand. If the student has had previous training in shorthand, 2120 will be omitted and replaced with 2130 and a higher-numbered shorthand course, or one semester of an approved elective. Students planning an area of concentration in office admin-istration-management may omit shorthand from their programs.

No more than three courses ( 9 semester hours) in typewriting may be applied toward satisfaction of the degree require-
ments by a student with high school credit in typewriting.

Students must earn a grade of C or better in typewriting or shorthand courses before they can register for the next course in the subject.

## OFFICE ADMINISTRATION

The Certificete (Legel Assistent): minimum of 60 semester hours is required.
27 hours as follows: ENGL 1101, 1102; ACCT 2010, 2020; COMM 1311: HIST 2601, 2602; 3 hours in one of the following: PSYC 1101, SOCI 1111 , POLS 1100 , ANTH 1400, GEOG 1401; 3 hours in one of the following: ART 1101. MUHL 1101, THEA 1551, HIST 1301, 1302, PHIL 1111. or foreign language.

33 hours es follows: OFAO 2210, 2211, 2212, 2213, 2214, 2215, end five of the following OFAO 2216, 2219, 3217. 3218, 3219, 3220. FIR 3310. FIR 4011.
The Mejor (Legel Office Menegement Concentretion): in addition to the 33 semester hours in Office Administration cour ses listed ebove for the Legal Administration Certificete, courses listed ebove for the Legal Administration en en follows. e minimum of 21 upper division hours in courses es forlows.
OFAO $3250,4330.4350$. CJUS 3521 , end three of the OFAO 3250, 4330. 4350. CJUS 3521, end
following: OFAO 4410, 4320, 4420, 4430.
The Mejor /Secreteriel Concentretion): a minımum of 21 upper division semester hours of office administration cour ses, as follows: OFAO 3140, 3250, 4270, 4320, 4330, and two of the following courses, selected in conference with advisor: OFAO $4410,4420,4430$.
The Minor (Secreterial Concentretion).
For the student whose mejor is in enother college of the University: OFAO 1210. 1220. 2120. 2130, 3140, end upper division hours in two or three additionel epproved upper division hours in iwo or three ad by the department courses in office administration approved bythe defartmen either typewriting or shorthend, he mey omit either OFAO 1210 or 2120 , thus reducing the hours required for the minor from 21 to 18 ; minimum of 18 semester hours is required.)
For the student with emejor in other depertments of The Fogelmen College of Business and Economics: Upper division hours in three additional courses in Office Admınistretion approved by the department cheirmen.
The Mejor (Menegeriel Concentration): a minimum of 21 upper-division semester hours of courses as follows: OFAO 4320. 4330, 44 10, 4420, 4430, ACCT 3010, end one of the following courses, selected in conference with advisor MGMT $3215,4420,3750$; FIR 4610.
The Minor (Menegement Concentretion):
For the student whose mejor is in enother college of the University: ACCT 2010, 2020; ECON 2110, 2120; OFAO 3510, 4410, and upper division hours in two additional courses in office administration epproved by the edvisor. For the student with e mojor in other depertments of The Fogelmen College of Business end Economics: Upper division hours in three edditionel courses in office administretion epproved by the depertment chairmen

## Program in International Business

The primary objective of the International Business Program is to provide a broad interdisciplinary background for a career in international business. Through the study of theoretical and practical aspects of the operations of international and multinational business and through work in several liberal arts disciplines, the graduate of this program should be prepared, after receiving a minimum orientation training in a particular international firm, to apply the knowledge acquired to the solution of problems faced by the company.

For further information concerning this program, contact John J. Reid (Business Administration Building, Room 426C).

## INTERNATIONAL BUSINESS

The Mejor:
The student mejoring in Internetional Business must complete the same courses required of ell students working towerd the B.B.A. degree. For edditional requirements during the sophomore and junior years, see the International Business edvisor Students maporing in Internetionel Business ere required to take six credit hours in foreign languege it is elso strongly suggested thet the students teke more than six hours. Students meeting all the requirements estoblished by The Fogelman College of Business and Economics and the University for the B.B.A. degree and also meeting the language requirements esteblished by the Foreign Language Oepartment for emajor in Foreign Lenguage will be conferred e B.B.A degree with e major in International Business and a second mejor in Foreign Lenguage

In the senior yeer, the student will teke 21 semester hours in courses offered by The Fogelman College of Business and Economics, distributed as follows:
15 semester hours ( 5 courses) from the following group
BA 4000; ECON 4340, 4350; FIR 4550: MGMT 4810; MKTG 4530 .
6 semester hours ( 2 courses) from the following group:
ECON 4120; FIR 4440; MGMT 3760, 4711; MKTG 4080.
Two courses from the College of Arts and Sciences are also required in the senior year. See the advisor
The Minor:
For the student whose mejor is within The Fogelmen College of Business end Economics: Nine hours from the following courses with the approval of the Internationel 8 usiness advis or BA 4000; ECON 4340, 4350; FIR 4550; MGMT 4810; MKTG 4530.
For the student who is majoring within enother college of the University: The student will teke e minımum of 18 hours within The Fogelmen College of Business and Economics, at least 9 hours of which must be chosen from the following: BA 4000, ECON 4340, 4350, FIR 4550; MGMT 4810. MKTG 4530.
The necessery prerequisites for the ebove courses ere in perentheses below:
BA 4000 (Consent of the Internationel Business advisor); ECON 4340 (ECON 2120 ); ECON 4350 (ECON 2120 ); FIR
4550 (FIR 3410 or consent of instructor); MGMT 4810 (MGMT 3110); MKTG 4530 (MKTG 3010).

## Certificate

in Entrepreneurship
The Fogelman College of Business and Economics awards the Certificate in Entrepreneurship to students who complete the following courses with a grade of C or better: MGMT 4820, ECON 4340, FIR 4110, and BA 4100 ( 6 hours). The total number of hours for the certificate is 15. Prerequisites to these courses are: ACCT 2010, 2020; ECON 2110,2120 ; FIR 3410; MGMT 2710, 2750, 3110 ; MKTG 3010.

## Pre-Professional Business Administration Minor

The Fogelman College of Business and Economics offers a pre-professional minor (30 hours) for students whose major is in another college of the University. Requirements are as follow:
ACCT 2010, 2020; FIR 3410; ECON 2110, 2120; MGMT 2710, 2750, 3110; FIR 3130; MKTG 3010. Accounting, Economics, and junior standing are prerequisites for 3000 level courses.

# The College of Communication and Fine Arts 

RICHARD R. RANTA, B.S., M.A., Ph.D., Dean<br>Room 232, Communication Fine Arts Building

ACADEMIC PROGRAMS

| Department | Major | Concentration Within Major | Degree Offered (B.B.A.) |
| :---: | :---: | :---: | :---: |
| Art | Art | (1) Art Education <br> (2) Graphic Design <br> (3) Interior Design <br> (4) Ceramics, Painting, Sculpture, Printmaking <br> (5) Design | Bachelor of Fine Arts (B.F.A.) |
|  | Art History |  | Bachelor of Arts (B.A.) |
| Journalism | Journalism | (1) Advertising <br> (2) Broadcast News <br> (3) News Editorial <br> (Magazine) (Newspaper) (Photojournalism) <br> (4) Public Relations | Bachelor of Arts (B.A.) |
| Music | Music | (1) Performance <br> (2) Sacred Music <br> (3) Composition <br> (4) Music Theory <br> (5) Music History <br> (6) School Music (Instrumental) (Choral) | Bachelor of Music (B.M.) |
|  | Commercial Music | (1) Music Business <br> (2) Recording/Engineering | Bachelor of Fine Arts (B.F.A.) |
|  |  | (1) Studio/Live Performance <br> (2) Composition/Arranging | Bachelor of Music (B.M.) |
| Theatre and Communication Arts | Theatre and Communication Arts | (1) Broadcasting <br> (2) Communication <br> (3) Film and Videotape Production <br> (4) General Speech and Theatre <br> (5) Theatre | Bachelor of Arts (B.A.) |
|  | Theatre | (1) Performance <br> (2) Design and Technical Production <br> (3) Dance | Bachelor of Fine Arts (B.F.A.) |

## PHILOSOPHY

The College of Communication and Fine Arts is ultimately focused upon visual and audible symbols, whose rational and emotional values it is the mission of the college to create and explore. In the belief that perception is largely shaped by experience, The College of Communication and Fine Arts offers a range of symbolically rendered experiences, both individual and collective, in the hope of broadening and sensitizing the perceptions of its students.

The kind of symbolic experience which communicates emerges when, in Ruskin's phrase, "the hand, the head and the heart of man go together." Students in The College of Communication and Fine Arts receive individual and small group instruction toward this end. In the hope of furthering the capacity to impose a pattern on experience and to recognize the patterns offered by others, students of the
college are additionally exposed to courses drawn from a broad base of the liberal arts.

The faculty of the college represents a diversity of academic and artistic backgrounds and interests, reflected not only in its teaching, but also in research and creative activities. It is a faculty united in the attempt to maintain the highest standards in both classroom and studio work, standards which find their limits at last only in the mystery and wonder of the human experience from which they rise.

## PURPOSES

The College of Communication and Fine Arts has four primary functions. First, it offers courses of study aimed at preparing its students to work toward careers in the fine or applied arts, communications, or the performing arts, whether as practitioners, teachers, artists, or consultants.

Second, the college affords broad exposure and instruction in fine arts and communication to students of other colleges in the University whose degree programs may be enhanced by such exposure. Third, with a view toward individual professional growth as well as general cultural enhancement, the college vigorously promotes both scholarly research and artistic production on the part of its faculty. Finally, the college seeks to enrich the cultural atmosphere of both the University and the community at large through a continuing variety of public programs, to include art exhibitions, media presentations, dramatic productions, concerts, recitals, lectures, seminars, debates, workshops, festivals, and the like.

Through the diversity of these constituent elements, the college reflects the unity and challenge facing the communicative artist and scholar. Ultimately it is our goal to foster a more intense and profound awareness of the broad range of
human experience from which the college derives its pertinence and vitality.

## ORGANIZATION

The College of Communication and Fine Arts comprises four academic departments: Art, Journalism, Music, and Theatre and Communication Arts. The requirements for the majors and minors offered by these departments are listed later in this section.

## RESIDENCE REQUIREMENTS

University residence requirements are explained in detail in the Graduation from the University section. A transfer student in The College of Communication and Fine Arts must earn at least 6 semester hours in residence in the major subject and at least 3 semester hours in the minor. These credits may be earned only through regular class enrollment for a letter grade.

## TEACHER PREPARATION

Students enrolled in a degree program of The College of Communication and Fine Arts who wish to prepare themselves for teaching careers in the secondary schools of Tennessee may meet the state certification requirements while pursuing their chosen majors. Detailed certification requirements are outlined under Requirements for Teacher Certification in the Graduation from the University section. An application to enter the Teacher Education Program must be filed with the College of Education General Advisor.

Students entering the University for the first time as freshmen in the Fall of 1985, who wish to prepare for teaching careers in the fields of music or art, will be required to complete a five-year program. This program will result in the student first receiving a baccalaureate degree in the College of Communication and Fine Arts and then a Master of Arts in Teaching degree through the College of Education. Recommendation for certification is contingent upon completion of the fifth year (Master of Arts in Teaching degree program).

This program replaces previous Bulletin options for majors in music or art education. Students should consult with their major advisors in the Departments of Music or Art for information about this program and to insure that all requirements for the teaching endorsement, general education and professional studies are completed.

## DEGREE REQUIREMENTS

## Degrees Offered

A student may earn a Bachelor of Fine Arts, Bachelor of Music, or Bachelor of Arts degree, by majoring in one of the four departments which comprise The College of Communication and Fine Arts. The following is an outline by departments of all majors and concentration areas offered by the departments in the College of Communication and Fine Arts.
A minimum grade of $C$ is required in every course applicable toward a major or minor.
Every student should be aware that the mere completion of courses outlined below with a grade of $C$ or better does not guarantee classification as a major or minor in the discipline concerned; the student must be recommended by the chairman of the department in which the major or minor is sought. If, in the opinion of the chairman, the quality of the student's work is not high enough, additional work, the repetition of courses, or other evidences of superior scholarship may be required.
Elective credit in the College of Communication and Fine Arts may be granted for validated learning from experience or non-traditional instruction. Guidelines for this procedure may be obtained in the office of the Dean of the College of Communication and Fine Arts.
The college requires a minimum of two semesters of physical education activity courses, one-half of which minimal requirement may be satisfied by two semester hours of Marching Band. A student may elect to take the courses on a credit/no-credit basis. Only students in the following programs may apply more than 8 semester hours of Physical Education toward the specified minimum degree requirement: B.F.A. Theatre major with a concentration in Performance or Dance, B.A. Theatre major, Theatre or Dance minor. Activity courses offered by the Department of Theatre and Communication Arts at the 1000 level with the prefix DANC may be taken to fulfill physical education requirements.

## COURSES NOT APPLICABLE TOWARD B.A., B.F.A., OR B.M. DEGREES

The following courses carry college credit and are included in the total number of hours earned and the cumulative grade point average; however, none may be used to fulfill the minimum number of hours required for the B.A., B.F.A., or B.M. degrees.

ENGL 1100 , Introduction to Composition
MATH 1000, Basic Mathematics
MATH 1100, Intermediate Algebra
CHEM 1000, Chemistry for Life
Processes

CHEM 1100, Introduction to Chemistry CIED 1201, Reading Skills for University Students

## BACHELOR OF FINE ARTS (IN ART)

The Bachelor of Fine Arts in Art is a professional degree, the requirements for which provide the student with a greater opportunity for specialization in art than the other baccalaureate programs; for this degree a total of 142 semester hours is required for graduation, 90 of which must be in professional course work. A minimum of 42 upper division semester hours is required for this degree. A minimum grade of $C$ is required in all art courses; the student must maintain an overall quality point average of 2.0 . The specific degree requirements are divided into five groups: (1) general education, (2) basic art courses, (3) courses in one of the five concentration areas, (4) elective courses in art and (5) elective courses other than art to bring the total to 142 semester hours.

## 1. General Education Courses

English: ENGL 1101, 1102 with e minimum grede of $C$ : end two of the following: 2101, 2102, 2103, 2104, 2105, 2106. Humenities: six semester hours to be chosen from com. municetions, English. foreign langueges, history, music history, philosophy, or theetre history.
History: HIST 2601, 2602.
Neturel/Physicel Science: 6 semester hours \{A sequence is required only for those students with e concentretion in Art Educetion end who ere seaking stete certificetion.) in biology, chemistry. GEOG 1101, 1102; GEOG 1101, GEOL 1101; GEOL 1101, 1201; PSCI 1031. 1032; or physics.
Orel Communicetions: One orel communicetions course (3 semester hours) from the Depertment of Theatre and Communicetion Arts.
Merhemetics: One-semester course (3 semester hours) MATH 1181, 1182. 1211, or 1212 , or PHIL 1611
Physicel Education: iwo semesters; for deteils see Greduetion from the University.
Computer Literecy ( 3 semester hours); COMP 1200, by e course of study epproved by the deen, or by pessing en epproved computer literecy exeminetion. Art Educetion mejors will teke EDUC 3600

## 2. Basic Art Courses (39 hours)

ART 1311, 1314, 2313,1201, 1204, 2201, 2202; 2101, 2102
Art History: 12 upper division semester hours in ert history courses; no more then 3 hours of museum studies mey be used to setisfy this requirement. (Students in interior Design ere required to teke ART 3103, 3104; in Ar Educetion, students ere required to teke only ART 4167 end 4168.)
3. Concentration Areas:
a. Ceremics, Painting. Printmaking, and Sculpture 142 hours):
ART 2314. 4321: 3523, 3524, 4521, 4522; 2351, 3351 $4351,2511,3511,4511,3331,3332,4331,4332,4621$. 4622: 4611
NOTE Selection of fourteen (14) eppropriete courses from the nineteen ( 19 ) courses listed ebove.
b. Graphlc Dasign ( 42 hours)

ART 2213. 2221, 2312, 2351, 3221, 3222, 4221, 4222: $3223,3541,4321,4341,4342,4611$.
c. Intarior Dasign ( 42 hours):

ART. 2233, 2234, 2312, 3233, 3234, 3235, 3236, 3237. $3238,4237,4238,4239,4240,4611$.
d. Art Education (5t hours):

ART 2314, 3523, 4321, 4322, 4424; 3411, 3413, 3421, 4421 . EDUC 2600,3000 . 3100, 3401, 3501, 4601, 4901 Art educetion students must elso complete all generel educetion courses outlined in the progrem description for Teacher Educetion in the College of Educetion section.
b. Dasign (39 hours):

ART 2312, TECH 1611 . ART 2701, 3240, 4201, 4202,4205, 4206, 4207, 4208, 4611, 4621, 4622.
4. Art Electives to complete the total of 90 semester hours.
5. Elective Courses other than art to complete the total of 142 semester hours. These courses will be chosen by the student in consultation with his
advisor and the chairman of the Depart ment of Art.

## BACHELOR OF FINE ARTS (IN COMMERCIAL MUSIC)

The Bachelor of Fine Arts in Commercial Music is designed for students whose interest and abilities indicate a strong potential for significant achievement in the business or recording areas of the music industry. Two concentrations are offered: I. Music Business and II. Recording/Engineering. The intent of the program is to train individuals for entry and middle level positions in these areas of the music industry.
Admission: Admission to the University does not guarantee a student placement in the B.F.A. program. Admission is based on selective procedures. Stringent quality control is essential; therefore, an assessment is required of all students desiring to enter the program. One or more members of the Music Industry Advisory Board will participate in the assessment of the student so that estimates of commitment and potential for success can be made. Admissions criteria may be obtained through the office of the Chairman, Department of Music.
Remaining in the Program: The student's progress and continued potential will be reviewed twice a year by the appropriate Commercial Music faculty. Permission to continue in the program will be based upon this evaluation. Retention criteria may be obtained through the office of the Chairman, Department of Music.
Experiential Learning: Credit may be awarded for validated learning experience or nontraditional instruction. Students who wish to apply for credit for experiential learning may obtain guidelines for this procedure from the Dean of the College of Communication and Fine Arts. (See Fees and Charges for related fee information.)
Graduation from the Program: Upon admission to the program, each student will be assigned a CMUS faculty adviser. For the B.F.A. in Commercial Music, 138 semester hours are required for graduation. A minimum grade of C and a quality point average of 2.5 are required in all Commercial Music core and concentration courses.

## 1. General Education Courses

English: ENGL 1101,1102 with a minimum grade of C;
and two of the following: 2101, 2102, 2103, 2104 ,
2105,2106 2105, 2106
Humanities end Communicetions: one of the following: COMM 2321, 2322, or THEA 1411 ; plus one course to be chosen from communications, English, foreign languages, history, art history, philosophy, or theater history
History: HIST 2601, 2602
Neturel/Physicel Sciences: (sequence not required) PHYS 1111 and 1112 for music majors preferred Mathematics: Music 8usiness - MATH 1211; Recording/Engineering - MATH 1213 or higher
Physicel Educetion: 12 semesters) for details see Graduation from the University,
Computer Literacy: COMP 1200, a course of study approved by the dean, or by passing an approved computer literacy examination
2. Commercial Music Core I:

Musicianship (43 hours):
MUTC 1008, 1010, 1009, 1011, 2008; CMUS 2103; MUSE 1105; CMUS 1116, 2101, 2102; CMUS 3102, 3801, 3103 4898; MUAP 1000 ( 2 hours) two of the following: CMUS 3828 , MUHL 3302, 4801 , or 4802.
3. Commercial Music Core II: Music Industry (25 hours):
CMUS 4602, 4603, 3100, 3101, 4804, 3800; FIR 3011; COMM 4812.

## 4. Concentration Areas

e. Music Business ( 30 hours):

ACCT 2010, 2020, 3010; FIR 3410, 4440, 4870; CMUS 4504; MGMT 2710; COMM 4831, 4811.
b. Recording/Engineering (29 hours):

TECH 1811; CMUS 4800, 4802, 4803, 4805; COMM 3821 . 3823, 3824.

## BACHELOR OF FINE ARTS (IN THEATRE)

The Bachelor of Fine Arts degree is a program specifically designed for students whose certain interests and abilities strongly suggest the potential for pursuing careers as professional artists in the resident, professional, or academic theatre. To expand the student's creative powers and deepen the commitment to a vocation in the theatre, the B.F.A. program offers the student (1) a basic probing of all the arts and crafts of the theatre; (2) an exploration in depth of one area of special interest; (3) the opportunity to participate creatively as a theatre artist through extensive production experience. Three areas of specialization are offered: I. Performance, II. Design and Technical Production, and III. Dance. Students entering the B.F.A. program will elect one of these three areas for concentrated study. The student will normally begin specialized training at the end of the sophomore year.
Admission: Admission to the B.F.A. program in Theatre is based on selective procedures. Entrance into the Performance area is based on auditions and interview. The audition/ interviews are held twice yearly, near the end of each semester. The audition will consist of two scenes of approximately two minutes duration each for a total of no more than five minutes. The scenes should be from plays of distinctly different styles and/or periods.

Following a group of scenes, a critique session will be held. Applicants will be notified within a few days that they have been accepted into the program, accepted for one more semester on a probation basis, or advised to pursue another degree program.

An interview is also required for admission to the Design and Technical Production area. The student will submit a portfolio of graphic work. This may consist of sketches, costume plates, elevations, light plots, ground plans, etc.
Remaining in the B.F.A. Program: The fact must be emphasized that admission to the B.F.A. curriculum does not imply a student's permanent tenure in the program. At the end of each semester the student is expected to audition and the student's work will be assessed by the
theatre faculty. Artistic growth, development of technical facility, and continuing commitment to creative excellence on the part of the student will all be evaluated. Permission to continue in the program will be based upon this evaluation.
Transfer of Credit: In certain cases students may be admitted to an advanced level of the B.F.A. training program. Such admission will be based upon: (1) an audition and interview; (2) the student's previous course work in theatre, particularly in the area of his special interest; (3) the student's previous involvements in production experience; (4) letters of recommendation from former Theatre Arts instructors and/or directors. Even if admitted to an advanced standing, the student will be required to remedy previous course deficiencies.
Advising: Upon admission to the B.F.A. program, each student will be assigned a faculty advisor. For this degree, 136 semester hours are required for graduation. A minimum grade of $C$ is required in all theatre courses; the student must maintain an overall quality point average of 2.0.

## 1. General Education Courses

English: ENGL 1101, 1102 with a minimum grade of $C$ : and two of the following: 2101, 2102, 2103, 2104.

2105, 2106
Humenities: Six semester hours to be chosen from communications, English, foreign languages, history, music history, philosophy, or art history
History: HIST 2601, 2602
Neturel/Physicel Sciences: (Sequence not required) Orel Communicetions: One oral communication course from the Department of Theatre and Communication Arts
Methemetics or PHIL 1611
Physicel Educetion: two semesters (THEA 2501 or 2502 may be substituted for one P.E. course)
Computer Literecy: COMP 1200, a course of study approved by the dean, or by passing an approved computer literacy examination

## 2. Basic Theatre Core Courses

 (36 hours):THEA 1411, 1551, 1561, 2501, 2511, 2531, 3412, 3541 (2), 3542 (4), 4551, or 4552, 4582, and COMM 1781

## 3. Concentration Areas

Performance, Design and Technical Production, and Dance Individual concentration course sequence to be determined in conference with student's advisor and then submitted as a Plan of Study to the Director of Theatre for approval. Emphasis in specific areas (acting, stage movement, dance, directing, lyric theatre, oral interpretation, playwriting, design, theatre technology, management) will determine sequence structure. FOR EXAMPLE:
e. Performence (Acting Sequence):

THEA $1212,2502,2532,3411,3451,3505,3506,3521$, 3531, 3532, 3541, 3542, 4451, "4541, 4551 or 4552 (to complement theatre history core course requirement); elective courses chosen in conference with the student's advisor to complete the total of 16 semester hours.
b. Design end Technical Production

THEA 2512, $3511,3512,3513,3542,3561, ~ 4541,4551$ or 4552 , (to complement theatre history core requirements), $4562,4564,4565,4567,4569,4591,4592 ; 16$ hours of elective courses chosen in conference with the student's advisor.
. Dence
THEA 2532, $3541,3542,4541$; DANC 1821, 1822, 1823. 1825, 1826, 1827, 1831, 1832; PHED 3403; courses and directed individual studies to be selected from THEA 4553; DANC 2101, 2201, 3101, 3201, 4101, 4201 or 4301, in conference with edvisor.
*NOTE: THEA 4541 Internship (see course description section.) The intent of this requirement and course is to provide the student experience in a full-time theatre production situation. Off-campus participation (usually following the junior year) is an essential element of the 8.F.A. degree program. Details are to be planned in advance in conference with the student's advisor

## BACHELOR OF MUSIC (IN COMMERCIAL MUSIC)

The Bachelor of Music with a major in Commercial Music is designed for students whose interests and abilities give strong evidence of potential for significant achievement in the areas of musical performance or composition/arranging in commercial music. The concentrations available are: I. Studio/Live Performance and II. Composition/Arranging.
Admission: An interview and an audition are required of all students entering this program in order to gain an appreciation of the inherent musical potential, qualifications, expectations, and prior experience of the student so that preliminary estimates of student commitment and potential success can be made. Stringent quality control is essential. Upon admission, the student will be assigned a faculty advisor.
Experiential Learning: Credit may be awarded for validated learning from experience or non-traditional instruction. Students who wish to apply for credit for experiential learning may obtain guidelines for this procedure from the Dean of the College of Communication and Fine Arts. (See Fees and Charges, for related fee information.)
Remaining in the Program: The student's progress and continued potential will be reviewed at the conclusion of each semester by the faculty in Jazz and Commercial Music. Academic excellence and personal commitment to a career in the music industry as evidenced by involvement in projects of the student's own invention apart from classroom assignments will also be assessed.
Graduation from the Program: For the B.M. with a major in Commercial Music, the minimum of 142 semester hours is required for graduation. A minimum grade of $C$ and an average OPA of 3.0 are required for courses in the major, with an overall QPA of not less than a 2.0.

## 1. General Education Courses (40-42 hours)

English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: ENGL 2101, 2102, 2103, 2104, 2105, 2106
History: HIST 2601, 2602
Science: a two-semester sequence course ( 6 semester hours or more) in biology; chemistry; GEOG 1101, 1102; geology; or physics
Humenities and Communications: one of the following: COMM 2321, 2322, or THEA 1411; plus one course to be chosen from communications, English, foreign languages, history, art history, philosophy, or theatre history.
Mathemetics: MATH 1213 or higher
Physicel Education: (two semesters) for details see Graduation from the University.
Computer Literacy: COMP 1200, a course of study approved by the dean, or by passing an approved computer literacy examination.

## 2. Commercial Music Core Courses

 (12-14 hours)CMUS 4602, 4897,$~ 3800$ : one of the following: CMUS 3100, 3101. 3823
*Composition Project required for Composition/franging and Performance Project required for Studio/Live Performance concentration.

## 3. Musicianship Core Courses (38 hours)

MUTC 1008, 1010, 1009, 1011. 2008, 2010, 3008,3009; MUHL 3302, 4802 (History of Jazz): MUAP 1000; MUSE 1105; CMUS $1116,2101,2102,3828$.
Piano Proficiency: All undergraduate 8achelor of Music in Commercial Music majors, with the exception of keyboard majors, must pass the Commercial Music piano proficiency examination prior to their final semester in the program

## 4. Concentration Areas

a. Studio/Live Performence ( 52 hours)

Individual lessons on a major instrument or voice of which a minimum of 4 hours must be in upper division courses
Instruction on a secondary instrument or voice (piano majors take MUTC 2511)
MUAP 3010 (University Jazz Ensemble)
MUAP 3011
MUAP 3103
MUAP 3825
MUAP 3826
MUAP 3827
These courses have separate sections for voice and instrumental students.
4201 (Studies in Commercial Music)
Electives
b. Composition/Arranging (51-52 hours)

Major instrument or voice
MUSE 1101, 1104, 1109; MUAP 1311 (pianists MUSE 1111), (percussionists MUSE 1111); MUTC 2501, 2502, 2511, 3106; two semesters each of: MUAP 3010, 3011, 3103 (vocalists may take MUAP 3601); CMÚS 2501, 2502, 3501, 4102, 4501, 4502
Two of the following: CMUS 3801, 3825, 4103, 4603:
MUTC 3108 MUTC 3108
Electives

## BACHELOR OF MUSIC (IN MUSIC)

The Bachelor of Music with a major in Music is a professional degree, the requirements for which provide the student with an opportunity for specialization in the traditional disciplines of music and music education. A minimum grade of $C$ is required in every graded course applicable toward the major. The student must maintain an overall quality point average of 2.0. Exception: School Music concentration: (1) overall quality point average of 2.25; (2) quality point average no less than 2.25 in all courses taken at Memphis State University excluding all credit transferred from other institutions; (3) quality point average no less than 2.5 in all music courses; (4) quality point average no less than 2.5 in all required professional education courses; (5) grade of $C$ or above in each professional education and music course. The specific degree requirements are divided into five groups: (1) general education, (2) basic music courses, (3) courses required for the specific emphasis chosen by the student, (4) music electives and (5) elective courses other than music and music education to bring the total of semester hours taken to 132. Transfer students must complete at least 30 semester hours of music and/or music education courses at the upper division level at Memphis State University.
Admission: All applicants seeking admission as freshman music majors or as transfer students must complete and submit to the Admissions Office of Memphis State University an appropriate formal application form. In addition to academic considerations, admission to the music degree program requires a personal interview and an audition. The audition consists of (1) performance in the student's major applied area, (2) a music theory
examination and (3) a piano placement exam. Candidates are accepted on the basis of accomplishment, potential and suitability for the program they wish to pursue. Students seeking admittance as music majors in the fall term should apply no later than June 15 and those seeking admittance in the spring term should apply no later than December 1. Additional information on specific audition requirements and on interview/audition appointments may be obtained through the office of the Department of Music.
Degree Requirements (figures in parentheses indicate semester hours credit):

## 1. General Education Courses (32-45 hours)

English: ENGL 1101, 1102 with a minimum grade of C: and two of the following: 2101, 2102, 2103, 2104, 2105, 2106
Foreign Lenguage: 6 semester hours in one foreign language; for details see advisor. (Not required in School Music concentration)
History: two of the following: HIST 2601, 2602, 3900 Science: Atwo-semester sequence course ( 6 semester hours or more) in biology: chemistry; GEOG 1101, 1102; geology; or physics
Communications: one of the following COMM 1211. 1311, 2321, 2322, 2912, 3341, THEA 1411 (Only COMM 2912 is applicable to the concentration in School Music.)
Mathematics: 3 semester hours from the following: 1181, $1182,1211,1212,1312,1321,2291,2321$, or 2611 ; or PHIL 1611 (PHIL 1611 not applicable to the concentration in School Music.)
Physical Education: (two semesters) for details see Graduation from the University
Computer Literacy: COMP 1200. a course of study approved by the dean, or by passing an approved computer literacy examination (School music majors will take EDUC 3600)

## 2. Basic Music Courses (37.5-42 hours)

MUTC 1008, 1010, 1009, 1011, 2008, 2010, 3008, 3009, 3010, 3101,3102 (MUTC 3102 not required in School Music concentration)
MUHL 3301,3302, History of Music
MUSE 37008 asic Conducting
Large Musical Organizations: A minimum of eight semesters of large ensemble is required of music majors. (Exceptions to this policy are pianists with concentration in Performance and guit arists who are required to have a minimum of 6 semesters of large ensemble; and music education students who are required to have 7 semesters of large ensemble.) Generally wind and percussion performers are to participate in an instrumental ensemble; string performers are to participate in orchestra; and vocal, keyboard, and guitar performers are to participate in a choral organization unless assigned to a large instrumental ensemble. Transfer students lacking sufficien large ensemble credits may partially fulfill their large ensemble requirements by simultaneously enrolling in a small ensemble with a maximum of 2 credit hours of small ensemble applicable to the total large ensemble requirement. Ensemble assign ments are based on audition and may be repeated. Any exception to this general ensemble assignment policy will be made after a review of petitions by the departmental chairman, the appropriate ensemble director, and the applied teacher. Piano Proficiency: All undergraduate music students must complete a piano placement examination prior to enrolling in applied music courses in the Department of Music. All musi majors must pass the piano proficiency examination befor the beginning of the senior year. This may be done in either of two ways: (1) as part of the class work in MUSE 2108 Class Piano, or (2) by passing without credit the piano proficiency exam based on the student's area of major study, given once each semester. An official notice will be mailed to the studen and appropriate officials upon completion of MUSE 2108 o the piano proficiency exam. Copies of the requirements for the piano proficiency examination are available on request in the Music Department office. After successful completion of the piano proficiency examination, music students whose major instrument is not piano may be accepted for major group instruction or private instruction in piano (students in Theory or in Composition may be assigned to group lessons or to private piano studios before passing the proficiency exami nation with permission of their division heads and the permission of the Piano Division coordinator). Transfer students must take the proficiency examination during the first semester of residence or enroll in Class Pieno at th appropriate level.
Applied Music Workshop: MUAP 1000 is required of all music majors for eight semesters and of all music education (school music) students for seven semesters.

## 3. Major: Music

Concentration Areas (choose one):
a. Peformance (45-60 hours)

Instruction in performance leading to the Bachelor of Music in Music with a Concentration in Performance is provided for the following areas: Trumpet, Horn, Trombone, Tuba, and Euphonium (Brass Instruments); Piano, Harpsichord, and Organ (Keyboard Instruments); Percussion; Violin, Viola, Violoncello, Bass, Guitar, and Harp (String Instruments); Flute, Oboe, Clarinet, Saxophone, and 8 assoon (Woodwind Instruments); and Voice.
Individual instruction in major performance area Instruction in secondary performance area
For 8rass Instruments: 2 hours each in individual instruction in two secondary brass instruments; group instruction in woodwind instruments.
For Woodwind Instruments: 2 hours each in individual instruction in two secondary woodwind instrument group instruction in brass instruments.
For Percussion: group instruction in brass instruments: woodwind instruments, and string instruments.
For String Instruments: 2 hours each in individual instruction in 2 secondary string instruments; 2
hours in appropriate pedagogy or repertory courses. For Keyboard Instruments and Voice: 6 hours in appropriate c
Music History elective: Choose from MUHL 4001, 4004, 4005, 4407, 4408, 4500, 4801, 4802 in consultation with major advisor
Music Theory elective: Choose from MUTC 4201 sec tions 002,003,004,006, or 007 in consultation with major advisor.
Junior Recital
Small Ensemble
4 semesters of small ensembles, chosen from those listed under "Small Ensembles and Chamber Music" in consultation with the major advisor, is required. 6 hours of MUAP 3301 (Chamber Music for Pianists) is required of students in Piano
For students in Voice, in addition to 6 hours genera education requir ement in foreign Languages, 6 hours each in 2 other languages (must be French, German, each in 2 Italian).
b. Secred Music: (37-43 hours)

Individual Instruction in Voice or Organ
MUSA 4104, 4105 Sacred Music in History and Practice I \& II
MUSE 4701 Choral Conducting
MUSE 4202 Materials and Methods K-6
Senior Recital
For students in Voice
MUSE 1111 Guitar Class
Small Ensembles
Music Electives
For students in Organ
Individual instruction in Voice
MUSA 4101 Service Playing
MUHL 4005 History and Literature of the Organ
Small Ensembles
Music Electives
c. Composition: ( 48 hours)

Individual instruction in applied music to include four semesters of piano
MUTC 2501 Composition
MUTC 2502 Composition
MUTC 4501 Composition (at least four semesters)
MUTC 4511 Intermediate Electronic Music
MUTC 4512 Advanced Electronic Music
MUTC 4201 Studies in Music Theory and Composition
002 Sixteenth Century Counterpoint
002 Sixteenth Century Counterpoint
003 Eighteenth Century Counterpoint
004 Twentieth Century Counterpoint
007 Advanced Orchestration
MUTC 4101 Twentieth Century Compositional Techniques
MUSE 3702
MUSE 3702 or MUHL 4408006 Score Reading or Twentieth Century Music
MUTC 4599 Senior Composition Recital
MUAP 3402 Contemporary Chamber Players
d. Music Theory: (47 hours)

Individual instruction in applied music, at least 8 hours of which must be in piano
MUTC 4502 Composition for Non-composıtion Majors MUTC 4201 Studies in Music Theory and Composition
002 Sixteenth Century Counterpoint
003 Eighteenth Century Counterpoint
004 Twentieth Century Counterpoint
005 Pedagogy of Theory
006 Analyíc Techniques
007 Advanced Orchestration
MUTC 4203 Critical Studies in Music
MUTC 410 I Composition Techniques of the Twentieth Century
MUSE 3702 Score Reading
MUSE 4700 Instrumental Conducting or MUSE 4701
Chor al Conducting
Upper division Music History
e. Music History: (49 hours)

Individual instruction in applied music
MUSE 3702 Score Reading
MUTC 4201 Studies in Music Theory and Composition
002 Sixteenth Century Count erpoint
003 Eighteenth Century Counterpoint
Advanced Music History
Two additional courses in the social sciences
Foreign language: 12 semester hours in addition to
requirements for general education
Collegium musicum
f. School Music: (69-74 hours)

Core: (46-48 hours)
Natural Science: a course in one of the following sciences in addition to and different from the requirement for general education: biology, chemistry, physics, geology, and GEOG 4111, 4121, 4122, 4131
Social Science elective from one of the following. anthropology, economics, geography, political science, and sociology
Health and Personal Development: HLTH 1102 and one of the following: HMEC 1101 or PSYC 1101
EDUC 2500 Diverse Learning Environments
EDUC 2600 Human Development and Learning Theory
EDUC 3000 Instructional Delivery and Management
EDUC 3200 Interpersonal Skills for Educators
MUSE 4206 Music for Exceptional Children
EDUC 3600 Applications of Instructional Media
EDUC 4601 Educational Foundations for Teachers
EDUC 4800 Advanced Protessional Seminar
EDUC 4901 Internship for Teachers
SCED 4342 Teaching Reading: Secondary Content Areas
MUSE 4203 Materials and Methods of Classroom Music
MUSE 1112,1113 Class Instruction in Voice
(not required of students enrolled in Applied Voice) Junior Recital
Instrumental Emphasis: (26 hours)
MUSE 1101, 1103, 1104, 1109, 1110 Class Instruction in 8rass Instruments, Percussion Methods, Woodwind Instruments, Stringed Instruments
MUSE 4204 Instrumental Music in Elementary and Secondary Education
MUSE 4700 Instrumental Conducting
Applied Music: Individual instruction in a major instrument: at least 4 hours must be taken at the upper division level
Choral Emphasis: (23 hours)
MUSE 1115 Classroom Instruments: Guitar and Recorder (2)
MUSE 4202 Materials and Methods of Music, Grades K-6 (3)
MUSE 4207 Choral Methods and Materials
(2)

MUSE 4701 Choral Conducting
Applied Music: Individual instruction in voice or a major instrument; at least 4 hours must be taken at the upper division level
4. Music Electives: at least 6 semester hours in upper division music courses selected from a concentration area other than the one chosen for the major.
5. Elective Courses to bring the total to a minimum of 132 semester hours. These courses will be chosen by the student in consultation with his advisor and major professor.
courses toward the 132 hours required for graduation.)

## B.A. DEGREE REOUIREMENTS

English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: $2101,2102,2103,2104,2105,2106$
Foreign language: 12 semester hours, or the equivalent, in one foreign language.
History: HIST 2601, 2602
Netural science: 3 courses from at least 2 departments; if 2 are from the same department, they must constitute a sequence. Courses from which these must be selected are PPSCI 1031 12; 2 . GEO 1051, 1052 , or GHOG 1101 GEOL 101; GEOL 1101, 1201 (not more than two courses may be aken in geography and/or geology courses to meet this requirement); PHYS 1111, 1112 or 1811, 1812, or 2111 , 2112 or $2511,2512$.
Social science: 15 semester hours with no more than 6 semester hours in a single discipline. Courses from which 1200 must be selected are ANTH 1100 or 1300, and ANTH 2012301 , 311 . HIST 1301 1302, INTL 101 GEO 401, 2301, 2311, HIST 1301, 1302, INTL 1101, 1102 OLS 101, 1100, 2301, 2s01, PSYC 1101, 1102; SOC 111, 1 courses: JOUR 1700, COMM 1781, 1782
Mathematics/Philosophy: 9 semester hours as follows: 3 of mathematics plus 3 of philosophy plus 3 of either. The ollowing courses are acceptable: MATH 1181, 1182, or 1211, 1212, 1312, 1321, 1401, 1402, 2291, 2321, 2322 2401, 2402, 2581, PHIL 1111,1611
Fine Arts: Two of the following courses: ART 1101; MUHL 1101: THEA 1551; and COMM 1 B51
Physical Education: for details see Graduatıon from the University.
Computer Literacy: COMP 1200, a course of study approved by the dean, or by passing an approved computer literacy examination ( 3 semester hours)
Mejor: Completion of requirements for one of the majors listed below.
Electives: to bring the total to 132 semester hours

## MAJORS (Choose one)

## ART HISTORY

The Major: 36 semester hours in art history courses, including ART 2101, 2102, 4611, and one upper division course each from five of the following art history categories: Ancient Medieval, Renaissance, Baroque, Modern European, Amercan, and non-European art. A minimum of 3 hours in studio art is also required

## ART

The Major: None available.


## BACHELOR OF ARTS

To qualify for the degree of Bachelor of Arts the student must complete a minimum of 132 semester hours with a quality point average of 2.0 . Of the 132 semester hours required for graduation, at least 42 semester hours must be in courses from the Upper Division. Not more than 42 semester hours in any one subject will be counted toward a degree. (EXCEPTION: The student majoring in journalism may not count more than 35 hours in journalism and journalism skills

The Minor: 24 semester hours in art courses, 9 of which must be from the upper division.

## PHOTOGRAPHY

The Major: None available.
The Minor: 18 semester hours as follows: ART 2701, 2702,
3701, 4701, 4702, and 4721

## JOURNALISM

Note: All journalism students must have typing proficiency before admission to JOUR 2121
Students majoring in journalism may select only one concentration and/or emphasis and may not simultaneously complete, within the 132 hours required for the 8 achelor of Arts degree, the concentration in ilm and videotape production within the theatre and communication arts major. Twelve semester hours in a secondary area of emphasis, outside the Department of Journalism, approved by the student's advisor, is recom-
mended.

In order to be in compliance with the American Council on Educetion for Journalism and Mass Communicetion accred itetion standards, MSU will accept no more than 12 semester hours or the equivalent in Journalism courses for trensfer from community colleges to be applied toward the degree.

The Major:
Journalism Core (required of all students majoring in jour-nalism-12 ollowing: Joun Public Relations majors may not elect JOUR 3700, 4706, or 4726).

Completion of one of the following concentrations
ADVERTISING (18 hours): JOUR 2300, 2710, 3322, 3324, 3335, 4327
BROADCAST NEWS (13.17 hours): JOUR 3625, 4629; COMM 3821; COMM 3801 OR COMM 3823 and 3824 NEWS EDITORIAL (Choose one emphasis):
Magazine (18 hours): JOUR 2123, 2200, 3205, 3214, 3527, 3720.

Newspaper(13-14 hours): JOUR 2123, 3125, 3720, 4120, and 3123 or 4726 or, for students meeting the specified criteria, 4130.
Photojournalism (16 hours): JOUR 2123, 2520, 3525, 3527, 3720, 4830 (1 hour).
PU8LIC RELATIONS ( 42 hours): JOUR 3400, 3421,3422, 3625,4423 , and two of the following: $3720,3123,3205$; COMM 3322, 3801 ART 2221. MGMT 3110 and 4420 , MKTG 3140 and EDRS 4541-001.
The Minor: Students may qualify for a minor in general journalism by completing 18 semester hours in journalism courses, including JOUR 1700, 2121,3400, and 9 additional semester hours selected from the upper division.
Practical experience is available to all journalism students on The Helmsman; The DeSoto, University yearbook; or in one of the following activities- University Public Information Office, Athletic Publicity Office, Alumni Publicity Office, Photo Service Department. Oualified majors will be chosen for senior-year internships with Memphis newspapers, magazines, advertis ing-public relatıons agencies, and broadcastıng stations.

## APPLIED MUSIC

The Major: None.
The Minor: 24-28 hours in basic music courses plus the completion of the requirements for a minor; specific courses are outlined below
Basic music courses $(22$ hours)
MUTC 1008, 1010, 1009, 1011, 2008, 2010 (12 hours) MUHL 3301, 3302
Individual instruction in piano, organ, voice, or orchestral instrument, 4 semester hours. Applied Music Workshop (See

Description of Courses, for detaıls.) Applied Music (4 hours) 4 semester hours of individual instruction in upper-division courses.

## THEATRE AND COMMUNICATION ARTS

The Major:
All students must take THEA 1551 and COMM 1781 end fulfill the requirements for one of the following concentrations:
Select one of the following concentration areas
BROADCASTING: 30-31 semester hours, including COMM $2321 ; 3800 ; 3821$ or $3823 ; 4810 ; 4857$; and 15 additiona hours in Communications including two of the following $4811,4831,4 \mathrm{B5} 4$, or 4871 .
COMMUNICATION: 30 semester hours, including COMM 1780; 2321; 3322; two of: 3800, 3851, 4853, 4854; two of: 4341, 4011, 4013, 4360, 4101; and 9 additional hours in Communication.
FILM AND VIDEO TAPE PRODUCTION: 32 semester hours, including COMM 2321 or $3322 ; 3823 ; 3824$; two of: 4 B 24 4825,$4842 ; 3$ hours in 4892 or 4802 ; and 12 additional hours in Communication including two of the following: $4850,4851,4853,4854$, or 4855
GENERAL SPEECH AND THEATRE: 30 semester hours in cluding THEA 1411 ; COMM 1851; 2321; three of: THEA $4581,4551,4552$, COMM 4362, 4850, 4851, 4857; and 12 additional hours in Communication and Theatre.
THEATRE: 30 semester hours including: THEA 1411, 1561 , 2501, 2511 or $2512,2531,3412,3541$ ( 2 hours), 3542 (4 hours), 4551 or 4552 , and three additional hours in Theatre. NOTE: No more than six additional elective hours may be selected from Theatre or Communication areas.

The Minor: Any student wishing to minor in any area (Communication Arts, Theatre, Dance, Theatre and Communication Arts) in the Department of Theatre and Communication Arts should see the department chairman who will assign an appropriate advisor. The minor must consist of at least 18 hours of approved coursework, 6 of which must be upper division for the Dance minor and 9 of which must be upper division for the minor in Communication Arts, Theatre, or Theatre and Communication Arts. Coursework for all minors will be determined by the student in conference with the advisor with the approval of the department chairman.

## HONORS PROGRAM

The Honors Program offers superior students the opportunity to engage in an intensive and individualized course of study leading to a Bachelor of Arts degree with Departmental Honors. The program enables honors students to develop their
particuler talents, interests, and abilities within e curriculum designed to encourage ecademic independence and creativity Admission: To be eligible for admission into the Honors Program, a student must meet the following requirements: (a) the completion of 55 semester hours of college course work (or Junior standing). (b) an overall quality point average of 3.25 or better, (c) a departmental quality point average of 3.25 or better, and (d) the completion of the 6 hours of core require ments in the department (COMM 1781 and THEA 1551). Students who have not met all of these requirements may apply for admission into the program, and their applications will be considered on a "professional admittance basis, Applicatıons may be obtained from any member of the Honors Completed applications should be submitted to the Director of Honors at least two weeks before the end of each semester. Students may be admitied to the program et the end of any emester (including summer semesters)
Requirements: To graduate with departmental honors, an honors student must fulfill the following requirements
a) The completion of at least 18 hours of honors work. Twelve of these hours must be in upper division departmental honors work, and a maximum of 6 hours may be in lower division or xtra-departmental honors work
(b) The completion of an honors project or thesis in the senior year.
(c) The maintenance of an overall grade point average of 3.0 and a departmental grade point average of 3.25 .
An honors student may earn 12 hours of departmental undergraduate honors credit by taking 7000-level courses under the COMM 4980 designation. Honors Studies" (for a maximum of 9 hours undergraduate credit), and by taking a maximum of 6 g81). This will allow honors students to enroll in those departmental seminars which most specifically reflect their particular interests in theatre and communications. An honors student majoring in any field of concentration in the departnent will be able to substitue honors credit for certain track equirements for graduation. Contracting for honors credit in ther courses or enrolling in Independent Study or Special
roblems courses will not fulfill Honors Program requirements.
After completing 6 hours of Honors Studies, honors students may begin work on their projects or theses. These projects will be under the direct supervision of the Director of Honors, although students may ask any member of the departmental faculty to sit on their committees three faculty members will it on each student s committee). Typically, an honors student earns 6 hours of credit for the project, 3 of which rellect a emester of research or preparation, while the inal 3 hours reflect a semester of writing or assembling the project. The honors project does not have to be a thesis, the nature of the project will depend on the student's interests, talents, and course work and will be decided on an individual basis by the Director of Honors.
For further information about the Honors Program, contact the chairman, Department of Theatre and Communication Arts.

# The College of Education 

ROBERT L. SAUNDERS, B.S., M.S., Ed.D., Dean<br>Room 215, The College of Education Building

ACADEMIC PROGRAMS

| Department | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Curriculum and Instruction | Elementary Education . |  | Bachelor of Science in Education (B.S.Ed.) |
|  | Early Childhood Education |  | Bachelor of Science in Education (B.S.Ed.) |
|  | Secondary Education, * |  | Bachelor of Science in Education (B.S.Ed.) |
| Health, Physical Education and Recreation | Health Education . Physical Education Recreation and Park Administration |  | Bachelor of Science in Education (B.S.Ed.) |
| Home Economics and Distributive Education | Home Economics | Dietetics <br> Food Administration <br> Merchandising-Fashion <br> Merchandising-Home Furnishings | Bachelor of Science in Home Economics (B.S.H.E.) |
|  | Vocational Home Economics | Occupational Child Care Services Occupational Clothing Services Occupational Food Services | Bachelor of Science in Education (B.S.Ed.) |
|  | Distributive Education - |  | Bachelor of Science in Education (B.S.Ed.) |
| Special Education and Rehabilitation | Special Education |  | Bachelor of Science in Education (B.S.Ed.) |
|  | Rehabilitation Education | Rehabilitation of the Public Offender <br> Vocational Evaluation <br> Rehabilitation Education | Bachelor of Science in Education (B.S.Ed.) |
| (Interdisciplinary) | Educational Services |  | Bachelor of Science in Education (B.S.Ed.) |



## PURPOSES

The College of Education is dedicated to preparing students for careers in a variety of professional and related occupational areas. In helping the University pursue its three broad objectives of teaching, public service and research, The College of Education is committed to the following purposes: (1) to provide programs for preparation of teachers and related school personnel; (2) to provide programs which prepare students for careers as educators in non-school settings; (3) to provide programs for students preparing for careers in related occupational and professional areas; (4) to provide programs and services which enable students to acquire additional preparation needed for continuous professional growth and for changing career objectives; (5) to provide effective personnel services in such areas as advising, certification, placement, and follow-up to undergraduates, graduates, and educators-in-service; (6) to provide a comprehensive program of research and service to schools and other appropriate agencies in the state, region, and nation; and (7) to provide appropriate programs and services needed by Memphis State University in its efforts to continuously improve the effectiveness of teaching and learning at the University.

## AREAS OF PROFESSIONAL TRAINING

The College of Education offers a wide selection of general and specialized programs which are designed to prepare students for a variety of careers:

## Careers in Teaching

Teachers are a vital element in society and the training of well-prepared teachers continues to be a primary goal of The College of Education. Careers in teaching offer a wide range of specialization choices and opportunities in nursery, kindergarten, elementary, junior high and senior high schools.

Through the College of Education there are options for endorsements at the undergraduate level for Grades K-8 (Elementary Education and Early Childhood); Grades K-12; Vocational Education: Grades 7-12.
Students who wish to prepare for teaching in Secondary Education (Grades 7-12), Art Education, Health Education, Music Education and Physical Education will be expected to complete a baccalaureate degree in the appropriate teaching area followed by a fifth-year Master of Arts in Teaching degree through the College of Education. Recommendation for teacher certification in these areas is contingent upon successful completion of the Master of Arts in Teaching degree.

Preparation for the various teaching areas includes a significant professional education component which emphasizes both a comprehensive knowledge base and an extensive skills requirement to ensure competency in pedagogy. To meet these objectives, there is provision for significant field and/or laboratory based experiences which culminate in an internship in the student's senior year. Combinations of endorsement areas are possible and recommended.

Because the entire program of teacher education is undergoing revision and modification, students should ascertain from the department of their interest or the general advisor in the College of Education what program requirements are in effect at the time of application.

## Careers in Educational Services

Significant and far-reaching changes have created a society in which the view of education has become more comprehensive and learning has become an integral part of job effectiveness and everyday living. Demands for training in business and industry, health care agencies, government, social service agencies, correction institutions, community agencies, and religious organizations have brought increased emphasis to the need for preparation of educators to provide educational services in a variety of professional practice settings outside traditional school settings. The preparation of these educators is accomplished through
the Bachelor of Science in Education with a major in Educational Services.
This unique major encompasses a professional education component which is directly relevant to the needs of educators in these diverse settings and includes significant field and laboratory based experiences. It also provides for an internship, a supportive collateral studies component, and an individual program planning committee through which the student's personal interests, professional needs and career goals are accommodated.

## Careers in Related Occupational and Professional Areas

Career options are available in related occupational and professional areas of Dietetics, Food Administration, Fashion Merchandising, and Home Furnishings Merchandising through the Department of Home Economics and Distributive Education. The Department of Special Education and Rehabilitation offers training for careers in rehabilitation through three concentration areas: Rehabilitation of the Public Offender, Vocational Evaluation, and Rehabilitation Education. Students have the opportunity to prepare for careers in Therapeutic Recreation, Outdoor Recreation, and Recreation Program Administration through the Department of Health, Physical Education and Recreation.

## Computer Literacy

Students in the College of Education will meet the University Computer Literacy requirement by taking either EDUC 3600 or a combination of courses required for each major program.

## College Honors Program

The College of Education Honors Program is intended to provide opportunities for students of junior standing who seek to demonstrate excellence in academic achievement. It offers a series of specially designed honors sections and courses from which 18 semester hours must be taken and a 3.25 quality point average maintained. Specific information about the College Honors Program may be obtained in the Office of the Dean.

## ORGANIZATION OF THE COLLEGE

The College of Education is comprised of seven academic departments: Counseling and Personnel Services; Curriculum and Instruction; Educational Administration and Supervision; Foundations of Education; Health, Physical Education and Recreation; Home Economics and Distributive Education; and Special Education and Rehabilitation. Undergraduate degrees are offered by the Departments of

Curriculum and Instruction; Health, Physical Education and Recreation; Home Economics and Distributive Education; and Special Education and Rehabilitation. All seven departments offer a variety of graduate degrees and program options. In addition, there are ten research and service units in the College: Academic Advising, Laboratory Facilities, Office of Professional Laboratory Experiences, The Bureau of Educational Research and Services, The Center for Higher Education, The Reading Center, The Center for Environmental and Energy Education, The Center for Fitness and Wellness, The Children's School-MSU-Duration Program, and the University Campus School.

## Academic Advising

Student advising in The College of Education is an essential support service provided to assist students in the process of clarifying academic goals consistent with their interests, abilities, values and resources. Advising serves as a means to provide academic, career and professional information so that students can develop personal and career goals and become knowledgeable of support services and resources available within the University to assist them in attaining their goals.

All undergraduate students entering the College are advised initially by The College of Education General Advisor. When entering the College, the Advisor assists students in becoming familiar with programs offered in the College and guides them through the beginning phases of their programs. Students are then assigned to a faculty advisor or Program Coordinator in their specific major. These persons will assist students until graduation. This assistance, however, does not in any way relieve the student of the primary responsibility of studying the catalog and fulfilling all degree requirements.

## EDUCATOR PROGRAMS

## Professional Studies for Educators

The professional studies component of the curriculum is divided into three levels of professional education courses. The first group of courses, Level I, which is taken by all persons who wish to become educators, reflects the belief that all educators need certain generic knowledge and skills regardless of the professional practice setting in which they will pursue a career. This initial core of courses provides the foundation upon which all professional educators build their knowledge and skills.

Majors in teacher preparation programs and in educational services complete a second level of professional studies courses which is based upon the Level I
courses. Due to the number of diverse professional practice settings of teachers and educational service professionals, the Level Il courses are unique to each of these two educator groups. Specialized professional studies which are directed to each teaching specialty area are included at Level III. Level III also contains an internship along with the specialized requirements of the teaching endorsement or supportive collateral studies area.

The goal of The College of Education is to provide education professionals with all the requisite knowledge and skills necessary for successful careers. To accomplish this goal, all courses in professional studies in The College of Education will have a significant portion of time devoted to field and/or laboratory experiences.

On the following page is the program design for The College of Education programs which prepare educators for school and non-school professional practice settings.

## Teacher Education Programs REQUIREMENTS

## Accreditation

The College of Education holds membership in the American Association of Colleges for Teacher Education. Its undergraduate programs as well as all graduate degree programs through the doctor's degree, for the preparation of teachers and related school personnel, are fully accredited by the National Council for Accreditation of Teacher Education (NCATE).

## Endorsements in Certification Areas

Endorsements (program areas of study) which lead to recommendation for teacher certification at the completion of undergraduate education programs include:

Elementary Education - (Grades 1-8)
Early Childhood Education - (Grades $\mathrm{K}-3$ )
Special Education - (Grades K-12)
Recommendation for teacher certification in any of the following teaching areas is contingent on the completion of a baccalaureate degree in the appropriate academic area followed by completion of the Master of Arts in Teaching degree.

| Art Education | Physical Education |
| :--- | :--- |
| Business Education | "Psychology |
| Distributive Education | Science |
| "Driver Education | Biology |
| English | Chemistry |
| Foreign Language | Earth \& Space Science |
| French | General Science |
| German | Physics |
| Latin | Social Studies |
| Russian | Broad Fields |
| Spanish | "Economics |
| Health Education | "Geography |
| Industrial Arts Education | "Government |
| "Librarian | History |
| Mathematics | "Sociology |
| Music Education | Speech and Drama |
| Instrumental Music | Vocational Home |
| School Music | Economics |

*This is not a major certification area; thus, it must be combined with a major teaching field.

Students who intend to enter the Master of Arts in Teaching program should consult with their major advisor or The College of Education General Advisor for information about this program to ensure that the general education curriculum, pre-professional studies, and teaching endorsement requirements are completed.

## Admission

Students who plan to pursue an undergraduate program of studies which leads to teacher certification must submit a formal application for admission to The College of Education Teacher Education Program (TEP). Although students may enroll in the Professional Studies Core -Level I courses without being admitted to the Teacher Education Program, they are encouraged to apply for admission as soon as they enroll in Levell Core courses.

Prerequisites for formal admission to the Teacher Education Program are:

1. Admission application complete.
2. Grade of C or above in ENGL 1101, 1102, and COMM 2912.
3. Satisfactory scores on the Pre-professional Skills Tests (PPST) according to the criteria established by the Tennessee State Board of Education and the College of Education, Memphis State University.
4. Speech and Hearing Tests completed.
5. Recommendations from instructors of EDUC 2600 and one other Level I Core course completed.
6. Minimum of 25 semester hours completed.
7. Overall OPA of no less than 2.25 .
8. OPA of no less than 2.5 in required professional education courses.
9. OPA of no less than 2.5 in all courses fulfilling the completion of each endorsement area.
Students must have been admitted to the Teacher Education Program and have completed the Professional Studies Core -Level I courses before other advanced level professional education courses are taken. Prior to admission to TEP, students may continue to enroll in courses in the general education curriculum, in the endorsement areas, or in Level I Core courses.

For a detailed explanation of all requirements and for application forms for admission to the Teacher Education Program, students should consult with The College of Education General Advisor.

## Retention

It is recognized that program retention is a continuing process. The requirements for retention are:

1. Overall OPA of no less than 2.25 .
2. OPA of no less than 2.5 in required professional education courses.
3. Grade of $C$ or above in each required professional education course.
4. OPA of no less than 2.5 in all courses fulfilling the completion of each endorsement area.
5. Favorable evaluation of student's performance in required field and laboratory experiences. (Course grades alone may not be used to meet this requirement.)
6. Favorable endorsement of student's personal commitment, affinity and aptitude for a career in teaching to be submitted by the faculty advisor.

If all requirements for retention have not been met, a faculty committee will review the student's academic record and other pertinent information and set up an interview with the student. This review may result in a recommendation to the
for a specific provisional period with specified conditions for continuation in the program or (2) dismissal from the program.

## Pre-Student Teaching Clinical Experiences

Students pursuing teacher certification will complete as a part of their program of studies a variety of clinical experiences, which typically will be completed as a requirement built into professional education courses. Students will be expected to have experiences in a variety of settings and with students who reflect differences in age, socio-economic backgrounds and cultural heritage. In some instances, it may be necessary for a student to complete an experience as a free-standing non-credit activity

Clinical experiences include both laboratory experiences (typically fulfiiled on campus) and field experiences (typically fulfilled in K-12 school settings). The amount of time to be spent in a clinical experience will vary according to the specific requirment being met. Fulfillment of these experiences generally require that students make available out-of-class time between 7:00 a.m. and 4:00 p.m.

Completion of field experiences will occur in sites arranged and approved by the MSU-COE Office of Professional Laboratory Experiences.

## Internship/Student Teaching

Students who are pursuing degree programs at Memphis State University that lead to teacher certification must complete their student teaching requirements in placements arranged, coordinated and approved by the Director of Professional Laboratory Experiences of the College of Education. Normally, student teaching assignments are full day in length for a designated number of weeks. Unique situations requiring a different arrangement must be approved by the Director.

Internship/student teaching is offered during the fall and spring semesters in area schools. Opportunities are provided for observation of sound teaching practices and for realistic experiences under the direction of cooperating teachers, culminating in assuming full-time teaching responsibilities.

Students are normally expected to enroll for nine hours of Internship/student teaching; however, students with a major in Early Childhood Education (K-3) are required to enroll for twelve hours of student teaching during the senior year. This experience is to be divided between primary grades and kindergarten.

Students who have completed all or part of their student teaching experiences prior to enrolling at Memphis State, and who desire to receive this institution's recommendation for certification, should expect to complete a minimum of six
semester hours of credit in student teaching at Memphis State University.

A limited program of student teaching is offered through the summer session. Information concerning the summer program, including requirements for enrolling, may be obtained from the Director of Professional Laboratory Experiences.

Grades in student teaching are reported as $S$ (satisfactory) or U (unsatisfactory).

Requirements for enrolling for Internship/student teaching are:

1. Filing of application with the Director of Professional Laboratory Experiences during the semester prior to the one in which the internship is to be done. Applications must be filed by March 1 for the fall semester, and by October 1 for the spring semester
2. Admittance to and good standing in the Teacher Education Program
3. Classification as a senior or graduate student
4. Completion of at least one semester of residence at Memphis State University (minimum of twelve semester hours).
5. All courses in the endorsement area(s) complete.
6. All prerequisite professional education courses complete.
7. Overall QPA of at least 2.25 .
8. QPA of no less than 2.5 in all courses fulfilling the completion of each endorsement area.
9. QPA of 2.5 in all required professional education courses.
10. Grade of $C$ or above in each required professional education course.
11. Recommendation by a faculty committee.

NOTE: STUDENTS WHO ENROLL FOR INTERNSHIP/ STUDENT TEACHING MAY NOT REGISTER FOR ANY COURSE WHICH IS SCHEDULED TO MEET AT A TIME WHICH WOULD CONFLICT WITH THE STUDENT TEACHING ASSIGNMENT

## Graduation

To be recommended for graduation, students must complete the requirements listed below. Students eligible to graduate under earlier catalogs who elect to meet the new program requirements should consult with the General Advisor concerning admission and graduation requirements.

1. Minimum of 132 semester hours of which at least 45 hours must be upper division hours and at least 60 hours of liberal content courses. Courses in the following fields will meet the liberal content requirement: anthropology, art (non-applied), biology, chemistry, economics, English, geography, geology, history, journalism (non-applied), languages, mathematics, music (non-applied), philosophy, physics, political science, psychology, sociology, and speech. The following courses offered in The College of Education may be used also: EDUC 2600, 3301, 3302, 3350; HLTH 1102, 1202; HMEC 1101, 2202, 3301. Specified courses within some endorsement areas may also meet this requirement, and information on these may be secured from The College of Education General Advisor.
2. Overall QPA of no less than 2.25.
3. QPA of no less than 2.25 in all courses taken at Memphis State University, excluding all credit transferred from other institutions.
4. QPA of no less than 2.5 in all courses fulfilling the completion of each endorsement area
5. QPA of no less than 2.5 in all required professional education courses.
6. Grade of C or above in each required professional education course.
7. Satisfactory scores on Core Battery of the National Teacher Examinations (NTE) according to the criteria established by the Tennessee State Board
of Education and the College of Education, Memphis State University.
NOTE: Any courses taken in excess of those needed to fulfill the requirements of professional education courses and major and minor endorsement areas, are considered to be general electives and are included only in the calculation of the overall QPA. In those areas where students are required to take elective courses, the student in consultation with and approval of the major advisor, designates where the elective courses are to be applied

## CURRICULUM

Course requirements for a Bachelor of Science in Education degree which leads to teacher certification include successful completion of (I) the general education curriculum, (II) physical education activity courses, (III) the professional education core curriculum and the professional education curriculum-specialized courses in a major, and (IV) a major endorsement in one or more teaching areas.

## I. GENERAL EDUCATION CURRICULUM

 (45 semester hours)(Courses in the general education curriculum may, if applicable, be used to meet requirements in the endorsement areas.)
English ( 12 hours): ENGL 1101, 1102, and two courses from 2101, 2102 , $2103,2104.2105 .2106$.
Health end Personel Development: HLTH 1102. HMEC 1101 OR PSYC 1101
Humenities (3 hours): art (non-applied), foreign languages (2000 level or above), music (non-applied), OR philosophy Communicetions: COMM 2912
Netural Sciancas ( 9 hours): (to include one two-semester laboratory sequence) in two of the following sciences: biology, chemistry, physics. earth sciences (defined for purpose of this requirement to include GEOG 1101. 1102 $4111.4121,4122.4131$, and any course in geology.) Elementery end Early Childhood mejors elec: BIOL 2001, 2002: PSCI 1031, 1032
Sociel Sciences: HIST 2601, 2602 (6); one elective from anthropology, economics, geography (other than the earth science courses listed above), political science, or sociology
Elementery end Eerly Childhood Educetion mejors elect GEOG 2301 OR 2311
Methemetics (3 hours). MATH 1181

## II. PHYSICAL EDUCATION

Two semesters of physical education activity courses. For details, see Graduation from the University.

Elementery end Eerly Childhood Educetion mejors elect PHED 1811 and one other activity course.

## III. PROFESSIONAL EDUCATION CURRICULUM (47-51 hours)

A. PROFESSIONAL STUDIES CORE-LEVELI ( 12 hours): EOUC $2500,2600,3000,3100,3200$
B. PROFESSIONAL STUDIES CORE-LEVEL II ( 12 hours): EOUC 3301 OR 3302, 3401, 3501, 3600, 3701. 4601
C. PROFESSIONAL PRACTICE SPECIALIZATION -

LEVEL III (21-26 hours)
Specific requirements for aach endorsement area to include appropriate methods courses for each major endorsement area, and internship for teachers.
MAJORS AND ENDORSEMENT AREAS

1. Elementery Educetion ( 27 hours): ELEO 3241, 3251, (3), $3261,3271,4242,4243,4344$ EDUC 4800. 4901 (9) 2. Eerly Childhood Educetion (27 hours): ELEO 3111 , 3121, 3241, 4242, 4243. EOUC 4800. 4901001 (6). 4901002 (6)
2. Speciel Educetion (22 hours): SPER 3012. 3013.4012 4013. EDUC 4800, 4901 (9).

## IV. SPECIFIC SUBJECT ENDORSEMENTS

Students must complete requirements in at least one major teaching endorsement area with a QPA of 2.5 in courses fulfilling the endorsement area.
A. CERTIFICATES FOR KINDERGARTEN - GRADE 8

1. Elementery Certificete - Gredes 1-B (44 hours)

ART 3411; MUSE 3001; HLTH 3306: MATH 1182, 2581 COMM 2912; PHEO 3806 (3): LIBS 4111 (2). Social Sciences COMM 2912; PHEO 3806 (3); LIBS 2301 OR 2311 SOCI 1111 OR 3831 . Natural Sciences - (12) BIOL 2001, 2002. PSCI 1031, 1032

## B.S.Ed. PROGRAM DESIGN

CERTIFICATED PROGRAMS (K-12)
45 semester hours
4

## GENERAL EDUCATION <br> PHYSICAL EDUCATION <br> (Pre-Professional studies)

## EDUCATIONAL SERVICES PROGRAM

EDUC 2500 Diverse Learning Environments
1
EDUC 2600 Human Development and Learning Theory 3
EDUC 3000 Instructional Delivery and Management 4
EDUC 3100 Assessment and Evaluation
2
EDUC 3200 Interpersonal Skills for Educators
2


EDUC 3350 The Adult Learner 2
EDUC 3600 Applications of Instructional Media
EDUC 4250 Job \& Learning Task Analysis
EDUC 4350 Instructional Design and Curriculum Development in Training Settings
EDUC 4550 Organization and Management of Training Programs

EDUC 4650 Educational Foundations for Trainers

EDUC 3301 Child Development and Learning Theory
OR
EDUC 3302 Adolescent Development and Learning Theory
EDUC 3401 Teaching the Exceptional Learner
2
EDUC 3501 Classroom Management
EDUC 3600 Applications of Instructional Media
EDUC 3701 Professional Seminar
EDUC 4601 Educational Foundations for Teachers 2

| EDUC 4800 | Advanced Professi | 1 |
| :---: | :---: | :---: |
| EDUC 490i | Internship for Teac | 9 |
| Specialized professional courses 3-17 |  |  |
| Specific Subj | ct Endorsements | 30-53 |

$\square$

[^1]SELECTIVES: (4) supportive of endorsement area and chosen in consultation with and approval of major advisor.
2. Kindergarten (19 hours)

The endorsement in Kindergarten may be added only to a certificate in elementary education. The student must complete the requirements for the elementary certificate and ELEO 2211, 3111, 3121, 4411; EOUC 4901 (6).
3. Early Childhood Education - K-3 (41 hours)

ART 3411 OR MUSE 3001; HLTH 3306; MATH 1182 OR 2581; COMM 2912; HMEC 4101; ELEO 2211, 4411; PHEO 3806 (2): Social Science - (6) GEOG 2301 OR 2311 ; SOCI 1111 OR 3831; Natural Sciences - (12) BIOL 2001, 2002; PSCI 1031, 1032.
B. CERTIFICATES - GRADES K-12

## 1. Special Education

Major Endorsement (36 hours): SPER 2000, 3014, 3015, 3201, 3401, 3501, 3516,3901 ; PHED 3303: ELED 3251 (2), 4242, 4344.
Minor Endorsement (28 hours): SPER 2000, 3014, 3015, 3201, 3401. 3501, 3516: ELED 3251 (2), 4242.
2. Driver Education

Major Endorsement: Not available
Minor Endorsement: (23 hours): SAFE 2102, 2202,4335, 4336, 4337, 4338. EOUC 3600. Electives (6) selected from safety education courses.

## 3. Librarian

Major Endorsement: Not available
Minor Endorsement (21) hours): LI8S 4111 (3), 4121, $4131,4232,4331,4401$; EOUC 3600 . For certification as librarian, a student must complete all requirements for either the elementary certificate OR the secondary certificate with a major endorsement in a subject area.
4. Health Education"

Major Endorsement (39 hours): HLTH 1102, 1202, 3202, 3402, 4102,4204, 4205; SAFE 2102, 2202; HMEC 2202; 8IOL' 1631, 1632 ; Health elective (3).
5. Physical Education*

Major Endorsement (53 hours): PHEO 1002, 1713 OR 1722; 2004. 2005. 2006. 2007. 2008, 2009, 2101, 2903, 3303. 3403. 3703. 3803, 3806, 4204, 4503; SAFE 3502 BIOL 1631, 1632 . Select one of the following: PHED 2103, 2203, 2303, 2403. OR 2503
C. CERTIFICATES FOR VOCATIONAL AREAS - GRADES $7-12$

1. Distributive Education

Major Endorsement (39-45 hours): ECON 2110, 2120; OTED 2106, 3010. 4641: MKTG 3010, MKTG elective (3); HMEC 4600 (6); 12 hours of electives in business administration and/or journalism directly related to the distributive education curriculum (to be chosen in consultation with and approval of major advisor).
Work Experience - Choose Plan (a) or (b): (a) 2 years of acceptable work experience in one or more marketing occupations. (b) 1 year of acceptable work experience in marketing occupations plus HMEC 4705 or HMEC 4804 or MKTG 4991, or another approved University supervised occupational experience practicum. ( 2000 clock hours parttime experience equals one year).
Minor Endorsement (21-27 hours): ECON 2110: MKTG 3010. MKTG elective (3): HMEC 4600; 6 hours of electives in business admınistration and/or journalism directly related to the distributive education curriculum (to be chosen in consultation with and approval of major advisor). Work Experience: Same as major endorsement.
2. Vocational Home Economics*

Major Endorsement (41 hours): HMEC 1100, 1101, 1105, 2102, 2104, 2202. 3100. 3204. 3301, (same as EOUC 3301), 3401.4103, 4405, selectives in HMEC (12)

The following optional concentration and endorsement areas require the completion of the major requirements in vocational home economics in addition to the courses specified in the desired area(s). Occupational major subject courses must be completed prior to internship.
a. Occupational Child Care Services (18 hours): HMEC 3393. 4101, 4301: ELED 2211, 3111.4411.
b. Occupational Food Services ( 18 hours): HMEC 3302, 3393. 3602. 4202, 4302, 4502.
c. Occupational Clothing Services (18 hours): HMEC Minor Endorsement: Not availate
Majors in these areas are currently being revised and students should ascertain from the department of theirinterest students should ascentain from the depanment or their interest what program requirements are in effect at the lime of application. To be recommended for teacher certilication, students wilhaveto complete a baccalaureate degree as well
as a fith year Master of Arts in feaching degree through the College of Education.

## Educational Services Program REQUIREMENTS

## Admission

Students who wish to prepare themselves as educational services professionals for careers in non-school settings must make formal application for admission to The College of Education. The admission process should be initiated as soon as students enroll in courses in the Professional Studies Core-Level I. All admission requirements must be met before other advanced level professional
education courses can be taken; however, students may continue to enroll in courses in the general education curriculum or in the supportive collateral studies component.

Prerequisites for formal admission to the Educational Services Program are:

1. Admission application complete.
2. Grade of C or above in ENGL 1101 and a QPA of 2.0 in any other required English course completed at the time of application.
3. Grade of C or above in COMM 2912.
4. A minimum of 15 semester hours completed.
5. Overall QPA of no less than 2.0.
6. Three recommendations from appropriate individuals addressing the student's ability, communication skills, and personal and professional characteristics.

## Retention

Retention in the Educational Services Program is a continuing process. Monitoring student progress will be done at appropriate intervals. The requirements for retention are:

1. Overall OPA of no less than 2.25 .
2. Grade of $C$ or above in each required professional education course.
3. QPA of at least 2.25 in all required professional education courses.
4. Grade of $C$ or above in each required course in the supportive collateral studies component.
5. QPA of no less than 2.25 in all courses fulfilling the completion of the supportive collateral studies requirement.
6. Favorable evaluation of student's performance in all required field and laboratory experiences. (Course grades alone may not be used to meet this requirement.)
As long as all requirements are met the student will remain in good standing. If all requirements for retention have not been met, a faculty committee will review the student's academic record and other pertinent information and set up an interview with the student. This review may result in a recommendation for (1) continuation for a specific provisional period with specific conditions or (2) dismissal from the program.

## Pre-Internship Clinical Experiences

Students pursuing an Educational Services major will complete, as a part of their studies, a clinical experiences in a variety of settings which typically will be completed as a requirement built into professional education courses. In some instances, it may be necessary to complete an experience as a free-standing noncredit rendering activity.

Clinical experiences include both laboratory experiences (typically fulfilled on campus) and field experiences (typically fulfilled off-campus). The amount of time spent in a clinical experience will vary according to the requirement being met. Fulfillment of these experiences will require students to make available out-of-class time. In certain instances, this time may need to be scheduled between 7:30 a.m. and 5:00 p.m.

Completion of field experiences will occur in sites arranged and approved by
the MSU-COE Office of Professional Laboratory Experiences.

## Internships

Students will be eligible to enroll for the internship during the final year prior to graduation provided the following requirements are met:

1. All courses in the supportive collateral studies component are complete.
2. Overall QPA of no less than 2.25.
3. Grade of C or above in each required professional education course.
4. QPA of no less than 2.25 in all required professional education courses.
5. Grade of C or above in each required course in the supportive collateral studies component.
6. QPA of no less than 2.25 in all courses fulfilling the completion of the supportive collateral studies requirement.
7. Faculty committee recommendation.

## Graduation

To be recommended for graduation, students must complete the following:

1. Completion of 132 semester hours of which at least 45 hours must be upper division and at least 45 hours in liberal content courses.
2. Overall QPA of no less than 2.25 .
3. QPA of no less than 2.25 in all courses taken at Memphis State University excluding all credit transferred from other institutions.
4. Grade of C or above in all professional education courses required in Levels I and II.
5. QPA of no less than 2.25 in all required professional education courses.
6. Grade of C or above in all courses fulfilling the completion of the supportive collateral studies component.
7. QPA of no less than 2.25 in all courses fulfilling the completion of the supportive collateral studies component.
NOTE: Any courses taken in excess of those needed to fulfill the requirements of professional education and the supportive collateral studies areas are considered to be general electives and are included only in the calculation of the overall QPA. In those areas where students are required to take elective courses, the student in consultation with and approval of major advisor designates where the elective courses are to be applied.

## CURRICULUM

Course requirements for a Bachelor of Science in Education degree in the Educational Services major include successful completion of (I) the general education curriculum, (II) physical education activity courses, (III) the professional education curriculum, and (IV) the supportive collateral studies component.
I. GENERAL EDUCATION CURRICULUM (42.44 hours)

English ( 12 hours): ENGL 1101, 1102, and two courses from 2101, 2102, 2103, 2104. 2105, 2106.
Health and Personal Development HLTH 1102 and one course from HMEC 1101, PSYC 1101. PHIL 1111, ANTH 1100, 1200.
Humanities ( 3 hours): art (non-applied), foreign languages (2000 level or above), music (non-applied) OR philosophy Communications: COMM 2912.
Natural Sciences ( $6-8$ hours): two courses from biology Natural Sciences (6-8 hours): two courses from biology
chemistry, physics, earth science (defined for purposes of this requirement to include GEOG 1101,1102.4111.4121, this requir ement to include GEOG 1101 ,
4122,4131 and any course in geology).
Social Sciences HIST 2601, 2602 (6); and one course from anthropology. economics, geography (excluding earth sciences listed abovel. political science, OR sociology. NOTE Students may, with the consent of their committee, sub stitute UNIV 1410 (6) for HIST 2601 and 2602 if credit fo American History was earned in high school
Mathematics or Philosophy ( 3 hours): Math 1181 or any
higher numbered mathematics course: OR PHIL 1611 . higher numbered mathematics course; OR PHIL 1611.

## II. PHYSICAL EDUCATION

Two semesters of physical education activity courses, for details, see Graduation from the University.

## III. PROFESSIONAL EDUCATION CURRICULUM (34-40 hours)

A. PROFESSIONAL STUDIES CORE - LEVELI/12 hours): EDUC 2500, 2600, 3000, 3001, 3100, 3200.
B. PROFESSIONAL STUDIES CORE-LEVELII(15 hours): EDUC 3350, 3600. 4250, 4350, 4550, 4650.
C. PROFESSIONAL PRACTICE SPECIALIZATION - LEVEL III (7-13 hours): EDUC 4800, 4950 (6-12 hours)

## IV. SUPPORTIVE COLLATERAL STUDIES

(36 hours): Required core courses - MGMT 3110, MGMT 4420 or their equivalents. Courses appropriate for each supportive collateral studies area are selected in consultation with the major advisor. These courses must be approved by the Program Planning Committee and the Program Coordinator.

## Related Occupational and Professional Programs REQUIREMENTS

## Graduation

To qualify for a degree in either Home Economics, Recreation and Park Administration, or Rehabilitation Education, students must complete the following:

1. Minimum of 132 semester hours of which at least 45 hours must be upper division and at least 45 hours in liberal content courses.
2. Overall OPA of no less than 2.0.
3. QPA of no less than 2.0 in all credits earned at Memphis State University excluding all credit transferred from other institutions.
4. OPA of no less than 2.25 in all courses required for fulfilling the completion of the major.
NOTE: Any courses taken in excess of those needed to fulfill the requirements of the major are considered to be general electives and are included only in the calculation of the overall QPA. In those areas where students are required to take elective courses, the student in consultation with and approval of major advisor, designates where the elective courses are to be applied.

## CURRICULUM

Course requirements for a degree in one of these areas include successful
completion of (I) the general education curriculum, (II) physical education activity courses, (III) related areas of study (if applicable), and (IV) the courses outlined for the major.

## I. GENERAL EDUCATION

## CURRICULUM (42-45 hours):

(Courses in the general education curriculum may, if applicable, be used to meet requirements in the major.)
English ( 12 hours): ENGL 1101, 1102, and two courses from ENGL 2101, $2102,2103.2104,2105,2106$.
Health and Personal Development: HLTH 1102; HMEC 1101 OR PSYC 1101
NOTE 1: Home Economics majors elect HMEC 1101. NOTE 2: Recreation majors and Rehabilitation majors elect PSYC 1101.

Humanities ( 3 hours): art (non-applied, foreign language (2000 level or above), music (non-applied) OR philosophy. NOTE: Recreation majors elect a course from the following: art, music, theater.
Communications: COMM 1211, 1311, 1780, 2911, 2912 OR THEA 1411. NOTE: Recreation majors elect COMM 1311 .
Natural Sciences (6-9 hours): (including one two-semester laboratory sequence) in two. of the following sciences: bology, chemistry, physics, earth sciences (defined for purpose of this requirement to include GEOG 1101. 1102, $4111,4121,4122,4131$, and any geology.) NOTE 1: Home Economics majors with a Dietetics concentration elect BIOL 1631, 1632; CHEM 1111. NOTE 2: Recreation majors are required to take 6 hours; for Therapeutic Recreation area, lect 8IOL 1631. 1632. NOTE 3. Home Economics and Rehabilitation majors are required to take 9 hours
Social Sciences HIST 2601, 2602 (6): one course from anthropology, economics, geography (other than the earth science courses listed above), political science or sociology. NOTE 1 : Home Economics majors elect ECON 2110 . NOTE 2: Recreation majors elect one course from anthropology, sociology. or geography (excluding earth science courses). NOTE 3: Rehabilitation majors elect SOCI 1111.
Mathematics (3 hours): MATH 1181 or any higher numbered mathematics courses. NOTE: Home Economics majors must elect MATH 1211.

## II. PHYSICAL EDUCATION

Two semesters of physical education activity courses. For details, see Graduation from the University. NOTE: Recreation majors elect PHED 1713 OR 1722; and one additional activity course.

## III. RELATED AREAS OF STUDY

(15 hours)
Applies only to Recreatıon majors: SAFE 2102, PHED 1581. 1812; COUN 4621: EDUC 2600. 3350

## IV. MAJORS

A. Home Economics (67-105 hours)

1. General Home Economics Core (16 hours): HMEC 1100, 1101, 2104, 2202, 3100, 3301 (same as EDUC 3301). 4103.
2. Concentration Areas:
a. Dietetics (87-89 hours): HMEC 2102, 3204, 3302, 3602, 4102, 4402, 4502, 4602, 4802; CHEM 1111,1112 ,

3301, 3302, $3311,3312,4511,4512$; BIOL 1631, 1632 OR BIOL 1731, 1732; 3500; ECON 2110 , 2120 ; MGMT 2710, 2750, 3110,3215 : EDUC 2600; ANTH 1200; SOCI 1111.
b. Food Administration (54 hours): HMEC 2102, 3302, 3602, 4702001. 4702002, 4502; ACCT 2010, 2020; ECON 2110, 2120; MGMT 2710. 2750, 3110, 4210, 4420; MKTG 3010, 3410,4220
c. Merchandising ( 51.57 hours):

Merchandising Core (15 hours): HMEC 2106, 3106,
3206, 4600; MGMT 2750.
Merchandising Business Administration Core ( 21 hours): ECON 2110; ACCT 2010; 15 hours in MKTG to include MKTG 3010. 3 hours from MKTG 3012, 3610 . OR 4080 plus 9 additional hours in MKTG.
Select one from the following (15-21 hours)
Fashion - HMEC 1105, 2005, 4405, 4705.
Home Furnishings - HMEC 2004, 3204, 4204, 4304, 4504, 4804.
NOTE 1: All Merchandising students: All major subject area courses must be completed before the professional semester required in the Merchandising concentration. A cooperative relationship exists with the Fashion Institute of Technology in New York City, whereby Home Economics-Merchandising majors may enroll for one semester of study in New York with the semester hours earned being transferred toward graduation at Memphis State University.
NOTE 2: All Home Economics majors: Students in all concen trations must complete the application for practicum by midterm of the semester before taking the practicum. Students may obtain the form from the major advisor.
B. Recreation and Park Administration (60 hours)

1. Recreation Core (33 hours) RECR 2105, 3105, 3205, 3305, 3605, 3905, 4105, 4405, 4505, 4605.
2. Recreation Program Areas ( 27 hours): Students must elect one program area from group $A$ and a different program area from group 8

Group A (18 hours)
Therapeutic Recreation: RECR 3102, 3202, 4102; PHED 3303, 3403: SPER 3901
Outdoor Recreation: RECR 3103, 3203. 4103 (2), 4305(1), 4203 (2); PHED 1332, 1781; selective to be chosen in consultation with advisor (3)
Recreation Program Administration: RECR 3104, 3204 4104; MGMT 3110; ECON 2110 : MKTG 3010

## Group B (9 hours)

Therapeutic Recreation: RECR 3102, 3202, 4102
Outdoor Recreation: RECR 3103, 3203, 4103, 4305 (1).
Recreation Program Administration: RECR 3104, 3204 4104.

Church Recreation: RECR 2205, 4305 (1), 4905 (Church Recreation topic); PHIL 3701
Park Law Enforcement: INTD 3510, 3511; RECR 4305 (1)
3. Note: Required Electives ( 6 hours in addition to the major) Must be supportive to the major are to be selected in consultation with and approval of major advisor.

## C. Rehabilitation Education

(81-82 hours)

1. Rehabilitation Core (53 hours): SPER 3901, 3911, 3912 , 4902, 4903, 4904, 4905, 4941 (6); SWRK 3902, 3903. 3904; PSYC 3101; EDUC 4250; 12 hours from the following: SOCI 3422 OR 4420; 3501; 3521 OR 4522; 3831; 3841 OR 4631; 4851, 4852.

## 2. Concentration Areas

Rehabilitation Education (28 hours): SPER 2000, 3002 3201, 3401, 3501; COUN 4621; EDUC 2600, 3302,3350 Rehabilitation of the Public Offender (29 hours): SPER 3201, 3501; PSYC 3102; 18 hours of work in the fields of criminal justice, counseling, psychology or sociology Vocation Evaluation ( 28 hours): SPER 3002, 3501 4913. 4914, 4915, 4916: PSYC 3102, 3508: SOCI 4842.

# The Herff College of Engineering 

ORVILLE E. WHEELER, B.E., M.S.C.E., Ph.D., P.E., Dean<br>Room 201-D, Engineering Building

ACADEMIC PROGRAMS

| Department | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Civil Engineering | Civil Engineering* | (1) Construction Engineering <br> (2) Environmental Engineering <br> (3) Foundation Engineering <br> (4) Structural Engineering <br> (5) Transportation Engineering | Bachelor of Science in Civil Engineering (B.S.C.E.) |
| Electrical Engineering | Electrical Engineering* | (1) Computer Science <br> (2) Electrophysics <br> (3) Energy Conversion <br> (4) Systems and Signals <br> (5) Microwave and Antenna Systems | Bachelor of Science in Electrical Engineering (B.S.E.E.) |
| Mechanical Engineering | Mechanical Engineering* | (1) Chemical Systems <br> (2) Design and Manufacturing <br> (3) Energy Systems <br> (4) Mechanical Systems | Bachelor of Science in Mechanical Engineering (B.S.M.E.) |
| Engineering Technology | Architectural Technology $\dagger$ |  | Bachelor of Science in Engineering Technology (B.S.E.T.) |
|  | Computer Systems Technology $\dagger$ |  |  |
|  | Construction Technology $\dagger$ |  |  |
|  | Electronics Technology $\dagger$ |  |  |
|  | Manufacturing Technology $\dagger$ |  |  |
|  | Trade and Industrial Vocational Technical Education | (1) General <br> (2) Industrial Arts | Bachelor of Science in Technology (B.S.T.) |

*Note: Accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).
$\dagger$ Note: Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET)

## PRE-MED ENGINEERING

The Herff College of Engineering at Memphis State University has an option for students enrolled in an engineering program. This option is called "Pre-MedEngineering." It adds another degree of flexibility to the students' options as they approach the completion of their baccalaureate degree. The program was generated in response to the students' request to qualify for entrance into a medical school in conjunction with a back-up, and highly marketable, degree in an engineering field. This idea is in concert with the changing attitudes of medical schools, which are now encouraging a variety of carefully planned baccalaureate programs. They feel that such liberalization would improve the overall spectrum and qualifications of the medical profession in its attempt to handle the ever-increasing complexity of society's health care problems.
The student interested in this pre-med engineering option should take the first year of the common engineering coreincluding both semesters of general chemistry. The student progressing through first year should then contact the chairman of an engineering department who is authorized to substitute the courses in organic chemistry for certain technical courses normally taken in the junior and senior years. CHEM 3311 (Organic Chemistry) and CHEM 3301 (Lab) plus

CHEM 3312 and CHEM 3302 are the eight semester hours of organic chemistry, while BIOL 1111 and BIOL 1112 are the courses recommended by the medical school admissions office and Memphis State's biology department. These courses should be taken by the student as a junior so as to assist in taking the medical entrance examinations, probably during the senior year. Depending upon the student's schedule, time required for the undergraduate engineering degree, etc., the pre-med-engineering student may take additional biology courses, such as BIOL 3730 (Physiology) or BIOL 3620 (Comparative Anatomy). Also courses in biochemistry are appropriate, but not required.

## PURPOSES

The college's function is to serve the educational and research needs of the industrial community, the metropolitan area, the state, and the nation. It accomplishes this function by providing: (1) undergraduate professional education in the principal fields of engineering, (2) undergraduate education in both technical and educational technology, (3) graduate education in all areas, (4) a program of continuing education for the engineering and technological practitioners of the area, (5) assistance in the solution of industrial problems through utilization of physical
facilities and the professional talents of faculty and students, (6) a forum for the interchange of ideas and experiences among members of the industrial community through conferences, institutes and short courses and (7) an increase in the accumulation of knowledge in special fields of interest by a continuing program of study and research.

## ORGANIZATION

The Herff College of Engineering is organized into the Departments of Civil Engineering, Electrical Engineering, Mechanical Engineering, and Engineering Technology. Each offers a choice of specialized four-year programs leading to Bachelor of Science degrees and graduate programs.

## Advising

High school students, in planning for careers in one of the fields of engineering, should take advantage of preparatory courses. Since engineering is the application of mathematics and physical sciences to imaginative and useful systems, those courses should be emphasized in high school preparation. Courses are available at the University for those not fully prepared. Early enrollment in the summer terms offers excellent opportunity to remove any deficiencies that may exist.

Freshman students who choose to study in The Herff College of Engineering will be advised by an Engineering College counselor until a major has been selected; then they will be advised by a member of their major department. Because of one common core for engineering majors and another for engineering technology majors, internal changes of a student's major may be made efficiently without loss of a cademic credit.

## DEGREE REQUIREMENTS

## Degrees Offered

The Herff College of Engineering comprises five departments: Civil Engineering, Electrical Engineering, Mechanical Engineering, and Engineering Technology.

All have four-year programs leading to the following degrees: Bachelor of Science in Civil Engineering, Bachelor of Science in Electrical Engineering, Bachelor of Science in Mechanical Engineering, Bachelor of Science in Engineering Technology, and Bachelor of Science in Technology.

A five-year program leading to the Master of Science degree is recommended for those students who demonstrate high scholastic abilities. For more information about graduate programs, refer to the Graduate School Catalog.
The required curriculum, including elective specialties in each of the various undergraduate programs, is described in detail in the following pages. A minimum quality point average of 2.0 is required for graduation. A maximum of 4 hours of PHED may be applied to the degree.

University residence requirements are explained in detail in the Graduation from the University section. A student in the Herff College of Engineering must earn the 33 hours required by the University for residency as upper division hours in courses in the Herff College of Engineering.

The University Computer Literacy requirement is met by a combination of introductory and specialized courses, complemented by advanced classroom assignments, in each major program of the College of Engineering.

## DEPARTMENTAL REQUIREMENTS

## Civil Engineering

The civil engineering program is built upon a foundation of mathematics, physical sciences, and mechanics with supporting courses in the humanities and social studies. The curriculum affords a detailed study of the fundamental principles which comprise the professional practice of civil engineering. Career opportunities include technical or administrative positions in the areas of planning, design, construction, and maintenance of all types of public and private civil engineering projects.

To qualify for the degree of Bachelor of Science in Civil Engineering, a student must satisfy general University requirements, have a grade of " C " or higher in all Civil Engineering courses, and complete the 140 semester hour course sequence outlined below. For credits transferred from another institution, only those Civil Engineering course grades of "C" or higher may be applied toward the degree.

The first semester of the freshman year is common for the civil, electrical, and mechanical engineering curricula.

## FRESHMAN YEAR

| ENGL 1101 | 3 | ENGL 1102 |  |
| :--- | :--- | :--- | :--- |
| MATH 1321 | 4 | MATH 2321 |  |
| ENGR 1006 | 3 | CIVL 1107 |  |
| ENGR 1021 | 2 | PHYS 2511 |  |
| CHEM 1111 | 4 | CHEM 1112 |  |
| PHED Activity |  |  |  |
| (See Note 1) | 2 |  | 18 |
|  |  | 18 |  |

## SOPHOMORE YEAR

| ENGL 21 -- | 3 | ENGL 21-- | 3 |
| :---: | :---: | :---: | :---: |
| MATH 2322 | 4 | MATH 3391 | 3 |
| PHYS 2512 | 4 | ELEC 2201 | 3 |
| CIVL. 2131 | 3 | MECH 2332 | 3 |
| ECON 2120 | 3 | CIVL 2111 | 3 |
| PHED Activity | 2 | H\&S Elective (See Note 2) | 3 |
|  | 19 |  | 18 |


| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| CIVL 3101 | 3 | CIVL 3122 | 3 |
| CIVL 3121 | 3 | CIVL 3131 | 3 |
| MECH 3322 | 3 | CIVL 3135 | 3 |
| MECH 3325 | 1 | CIVL 3161 | 3 |
| MECH 3311 | 3 | H \& S Elective |  |
| MECH 3331 | 3 | (See Note 2) | 3 |
| MECH 3335 | 1 | COMM. Elective (See Note 3) | 3 |
|  | 17 |  | 18 |


| SENIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| CIVL 4135 | 3 | CIVL 4111 | 3 |
| CIVL 4141 | 4 | CIVL 4199 | 3 |
| CIVL 4151 | 4 | CE Elective (See Note 4) | 6 |
| CE Elective (See Note 4) | 6 | H\&S Elective (See Note 2) | 3 |
|  | 17 |  | 15 |

NOTE 1: A minimum total of 4 semester hours of PHED and/or ROTC is required.
NOTE 2: 18 hours of course work in the humanities and social sciences are required for the degree including the required English literature and economics courses. The remaining 9 hours must be selected to complete a 6 or 9 hour sequence terminating at the 3-4000 level in either humanities or social sciences. At least 9 hours must be taken in the humanities and at least 6 hours must be taken in the social sciences.
NOTE 3. Communcations elective to be selected from either ENGL 3601 or COMM 3341.
NOTE 4. Upper division course in civil engineering-advisor's approval required.

Areas of specialization include environmental engineering, structural analysis and design, foundation engineering, transportation engineering, and construction engineering.

## CIVIL ENGINEERING

The Major. 56 semester hours in civil engineering courses including CIVL $1107,2111,2131,3101,3121,3122,3131$, $3135,3161,4111,4135,4141,4151,4199$, and 12 semester hours of civil engineering electives. A student may select courses from the following concentrations to satisfy the required 12 hours of civil engineering electives required for e Bachelor of Science degree in civil engineering. A minimum of 6 hours must be selected from the following design electives: CIVL 4131, 4136, 4148, 4152 , 4164.
e. Environmentel Engineering: CIVL 4143, 4144, 4148, 4191
b. Foundetion Engineering: CIVL 3136, 4152, 4171, 4191 c. Structurel Engineering: CIVL 4131, 4136, 4152, 4191 d. Transportetion Engineering: CIVL 4162, 4164, 4191
e. Construction Engineering: CIVL 4164, 4171. 4172, Construction Engineering: CIVL 4164, 4171. 4172,
$4173.4174,4191$

## Electrical Engineering

Students enrolled in electrical engineering are offered a modern, wellbalanced curriculum which is designed to provide a thorough background and understanding of the theoretical and physical principles of electric and magnetic phenomena. The concepts and techniques of mathematics and physics are applied in a wide variety of studies designed to guide the student into a career which will enable him to contribute to the design, construction, and utilization of products which are beneficial to man. At the same time, the curriculum provides adequate flexibility for the student to specialize in one of the many diverse and exciting areas of modern technology.

Laboratory facilities are available for a wide variety of instructional and research activities. These facilities are located in a modern engineering building which provides the latest in facilities and equipment.

Career opportunities include positions in development and design, research, sales, management, manufacturing, and construction. Some of the technical areas of opportunity lie in the design, development and use of digital computers, communications systems, power generation and distribution systems, microwave and antenna systems, automatic control systems, and general instrumentation. An undergraduate student, with the approval of the department chairman, may also elect to take special technical and humanities and social science electives which satisfy the course entrance requirements for medical school.

The Department of Electrical Engineering offers a Master of Science degree for those electrical engineers who desire advanced study in the areas of computers, microwave and antenna systems, communications systems, solidstate electronics and automatic control systems.

The minimum requirements for the degree of Bachelor of Science in Electrical Engineering are as follows (the first semester of the freshman year is common for the Civil, Electrical and Mechanical Engineering curricula). An average grade of C must be maintained in all undergraduate electrical engineering course work.

Neither admission by Memphis State University and Herff College of Engineering, nor completion of the minimum requirements, guarantees admission to any specific Electrical Engineering course, Resource limitations may dictate class enrollment selection based on ranking by academic proficiency with possible allowances for graduating seniors. Transfer students should seek advice from the Electrical Engineering department prior to registration.

FRESHMAN YEAR

| ENGL 1101 | 3 | ENGL 1102 | 3 |
| :--- | ---: | :--- | ---: |
| MATH 1321 | 4 | MATH 2321 | 4 |
| ENGR 1006 | 3 | ELEC 1207 | 3 |
| ENGR 1021 | 2 | PHYS 2511 | 3 |
| CHEM 1111 | 4 | NATURAL SCIENCE | 4 |
| PHEO or ROTC | 2 | (See Note 1) | 4 |
|  |  | 18 |  |
|  |  |  | 18 |

## SOPHOMORE YEAR

| ENGL 21 --* | 3 | ENGL 21.-* | 3 |
| :---: | :---: | :---: | :---: |
| MATH 2322 | 4 | MATH 3391 | 3 |
| PHYS 2512 | 4 | ELEC 2201, 2203 | 4 |
| CIVL 2131 | 3 | MECH 2332 | 3 |
| ELEC 2222 | 4 | ECON 2110 | 3 |
|  |  | PHED or ROTC | 2 |
|  | 18 |  | 18 |

*See Graduation from the University, for options.


## SENIOR YEAR

| ELEC 4280 | 3 | ELEC 4231 | 3 |
| :--- | :--- | :--- | ---: |
| ELEC 4201, 4203 | 4 | MECH 3311 | 3 |
| Elec. Engr. Elective | 7 | Technical Elective | 3 |
| (See Note 3) |  | (See Note 2) | 4 |
| H \& Slective |  |  |  |
| (See Note 5) | 3 | H S Elective |  |
|  |  | 17 |  |
| (See Note 5) | 3 |  |  |
|  |  |  | 13 |

NOTE 1: To be selected from CHEM 1112, GEOL 1101, BIOL 1200, 1600, 1731.
NOTE 2 Upper division courses in engineering, mathematics, physics. Advisor approval required.
NOTE 3: Upper division courses in electrical engineering Courses selected must include sufficient design content Advisor approval required.
NOTE 4: To be selected from ENGL 3601, COMM 3341
NOTE 5: 18 hours of course work in the humanities and social sciences are required for the degree including the required English literature and economics courses. The remaining 9 hours must be selected to complete a 6 or 9 hour sequence terminaing at the $3-4000$ level in either humanities or social sciences. At least 9 hours must be taken in the humanities and at least 6 hours must be taken in the social sciences. See advisor for approved list of courses. Advisor approval required.

## ELECTRICAL ENGINEERING

The Major: 52 semester hours of electrical engineering courses including ELEC 1207, 2201, 2203, 2222, 3201, $3202,3211,3212,3213,3221,3240.4201,4203,4231$ and 4280 . The remaining semester hours of electrical engineering courses may be selected for concentration in one of the areas listed below. The program also includes 7 semester hours of technical electives which students may utilize to broaden their base of knowledge and for concentration in one of the areas listed below. Nine semester hours are required for a concentration. However, students are not required to select a concentration. The areas of concentration are:
8. Computer Science: ELEC 3220, 4230, 4232, 4270, 4271, 4272 and 4273
b. Electrophysics: ELEC $4212,4213,4223,4240,4241$ 4242 , and 4243
c. Systems and Signals: ELEC 4202, 4204, 4221, 4223 , 4230. 4232, 4233, 4234, 4251, 4252, 4253, 4255, 4256, and 4261
NOTE: Projects I or II, ELEC 4991 or 4992 can be taken for up to 6 semester hours credit in any of the areas of concentration

## Mechanical Engineering

Mechanical engineering is a broad field, and consequently students are offered a balanced curriculum designed to provide a strong foundation in mathematics, physical sciences and the engineering sciences. Moreover, they study humanities and social sciences to understand more fully the engineer's relationship and responsibilities to society. Finally,
mechanical engineers cultivate, through advanced courses in engineering design and synthesis, the ability to apply this knowledge to the analysis and solution of significant engineering problems.

Because of the diverse nature of this work, the mechanical engineer must have a basic knowledge of chemistry, physics, mathematics and the classical disciplines of mechanical engineering, thermal sciences, mechanical sciences, materials sciences and modern techniques of engineering analysis, design and optimization. This diverse background uniquely equips the mechanical engineer to work on a variety of challenging problems, including land and marine vehicles, aircraft and spacecraft, air conditioning systems, power plants, machines, and a host of other devices.

To qualify for the degree of Bachelor of Science in Mechanical Engineering the student must satisfy general University requirements, have a $C$ or better in all mechanical engineering courses, and complete the following curriculum (the first semester of the freshman year is common for the Civil, Electrical and Mechanical Engineering curricula.)

| FRESHMAN YEAR |  |  |  |
| :--- | ---: | ---: | ---: |
| ENGL 1101 | 3 | ENGL 1102 | 3 |
| MATH 1321 | 4 | MATH 2321 | 4 |
| ENGR 1006 | 3 MECH 1307 | 3 |  |
| ENGR 1021 | 2 | PHYS 2511 | 4 |
| CHEM 1111PHE Activity <br> (See Note 1) | 4 | CHEM 1112 | 4 |
|  | 2 |  |  |
|  | 18 |  | 18 |

## SOPHOMORE YEAR

| ENGL 21..* | 3 | ENGL 21--* | 3 |
| :---: | :---: | :---: | :---: |
| MATH 2322 | 4 | MATH 3391 | 3 |
| PHYS 2512 | 4 | MECH 2332 | 3 |
| CIVL 2131 | 3 | ELEC 2201 | 3 |
| H\& S Elective | 3 | ELEC 2203 | 1 |
| (See Note 2) |  | MECH 3361 | 3 |
|  |  | PHEO Activity | 2 |
|  |  | (See Note 1) |  |
|  | 17 |  | 18 |

"See "Graduation From the University" for options

## JUNIOR YEAR

| MECH 3341 | 3 | MECH 3312 | 3 |
| :---: | :---: | :---: | :---: |
| MECH 3311 | 3 | MECH 3321 | 3 |
| MECH 3305 | 3 | MECH 3323 | 3 |
| MECH 3322 | 3 | MECH 3331 | 3 |
| MECH 3325 | 1 | MECH 3335 | 1 |
| COMM Elective (See Note 3) | 3 | ECON 2110 | 3 |
|  | 16 |  | 16 |


| SENIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| MECH 4311 | 3 | MECH 4312 | 3 |
| MECH 4322 | 3 | Mech. Oes. Elec. | 4 |
| MECH 4344 | 3 | (See Notes 4 \& 5) |  |
| MECH ENGR ELEC (See Note 4) | 3 | MECH ENGR ELEC (See Note 4) | 3 |
| CIVL 4111 | 3 | technical elec | 3 |
| H \& S Elective | 3 | (See Note 6) |  |
| (See Note 2) |  | MECH 4335 |  |
|  |  | H\& S Elective |  |
|  |  | (See Note 2) |  |

NOTE 1: A minimum total of 4 semester hours of PHEO and/or ROTC is required
NOTE 2: 18 hours of course work in the humanities and social sciences are required for the degree including the required English literature and economics courses. The remaining 9 hours must be selected to complete a 6 or 9 hour sequence terminating at the 3-4000 level in either humanities or social sciences. At least 9 hours must be taken in the humanities and at least 6 hours must be taken in the social sciences. See advisor for approved list of courses.
NOTE 3: Communications elective to be selected from the following courses: ENGL 3601 or COMM 3341
NOTE 4: A 7 semester hour concentration of upper division mechanical engineering courses to gain depth in one of the following concentration areas: Energy Systems, Mechanical Systems, Design \& Manufacturing, and Chemical Systems
NOTE 5: A4 semester hour senior design course selected from the courses offered in the concentration area chosen (Note 4). NOTE 6: An upper division course in engineering, mathematics, physics, chemistry, etc., in support of the chosen concentration area. Advisor's approval required

## MECHANICAL ENGINEERING

The Major: 58 semester hours of mechanical engineering courses including 7 semester hours selected from one of the concentration areas listed below Within each concentration area the first course listed must be taken as the Mechanical Design Elective.
e. Design end Menufecturing: MECH 4323, 4345, 4325 . 4361, 4381, 4382.
b. Energy Systems: MECH 4313, 4309, 4315, 4316,4317, 4318, 4331.
c. Mechenicel Systems: MECH 4346, 4303, 4345, 4371
d. Chemical Systems: MECH 4364, 3364, 4366, 4318.

## Engineering Technology

Engineering Technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities. The Department of Engineering Technology offers five majors leading to the degree Bachelor of Science in Engineering Technology. These areas are Architectural Technology, Computer Systems Technology, Construction Technology, Electronics Technology, and Manufacturing Technology. The Department of Engineering Technology also offers a major in Trade and Industrial Vocational-Technical Education which leads to the Bachelor of Science in Technology degree.

A grade of $C$ or better must be attained in all upper division (3000-4000) engineering technology courses required in each major.

## ARCHITECTURAL TECHNOLOGY

Architectural Technology is that branch of Engineering Technology that concerns itself with those phases of architectural and engineering design as related to buildings. The purpose of the program is to teach design principles and drafting techniques in preparation for tasks that are now required of the architect and the engineer. The course offerings are engineering oriented with emphasis on architectural practices and principles.

FRESHMAN YEAR
ENGL 1101
MATH 1213
TECH 1411
TECH 1611
TECH 1010
TECH 1555
•ROTC or PHEO

ENGL 1102
MATH 1321
TECH 1611
CHEM 1051
COMM 1311
*ROTC or PHED

## SOPHOMORE YEAR

| ENGL 21 -- | 3 | ENGL $21 .$. | 3 |
| :---: | :---: | :---: | :---: |
| PHYS 2111 | 4 | PHYS 2112 | 4 |
| TECH 2555 | 4 | TECH 2251 | 4 |
| TECH 2944 | 4 | TECH 2556 | 3 |
| TECH 1451 | 3 | TECH 3400 | 3 |
|  | 18 |  | 17 |


| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| TECH 3401 | 3 | TECH 3471 | 3 |
| HIST 2601 | 3 | HIST 2602 | 3 |
| TECH 3531 | 3 | TECH 3491 | 3 |
| TECH 2561 | 3 | TECH 2511 | 3 |
| TECH 3601 | 3 | TECH 3408 | 3 |
|  |  | TECH 3520 | 4 |
|  | 15 |  | 19 |
| SENIOR YEAR |  |  |  |
| TECH 3472 | 3 | TECH 4520 | 3 |
| TECH 4515 | 4 | TECH 4615 | 5 |
| TECH 4530 | 3 | TECH 4944 | 3 |
| TECH 4525 | 3 | Gen Elect | 3 |
| TECH Elect | 3 | TECH 3409 | 1 |
|  | 16 |  | 15 |

- A minimum totel of 4 semester hours of PHEO end/or ROTC is required for graduation.


## CONSTRUCTION TECHNOLOGY

This four-year program is for students who are interested in preparing for professional careers in construction management, techniques, operations and different areas of the construction industry. As one of the biggest industries in the world, construction has dire need for many young men and women trained for the construction industry or related fields.

FRESHMAN YEAR

| ENGL 1101 | 3 | ENGL 1102 | 3 |
| :--- | ---: | :--- | ---: |
| MATH 1213 | 3 | MATH 1321 | 4 |
| TECH 1411 | 1 | TECH 1841 | 3 |
| TECH 1511 | 3 | TECH 2555 | 4 |
| TECH 1010 | 3 | TECH 1811 | 3 |
| COMM 1311 | 3 |  |  |
| -ROTC OR PHED | 1.2 | •ROTC OR PHEO | $\frac{1.2}{18.19}$ |

## SOPHOMORE YEAR

| ENGL 21.. | 3 | ENGL 21.. | 3 |
| :--- | ---: | :--- | ---: |
| PHYS 2111 | 4 | PHYS 2112 | 4 |
| TECH 2944 | 4 CHEM 1051 | 4 |  |
| TECH 1451 | 3 | Gen Elect | 3 |
| TECH 2511 | 3 | TECH 3451 or | 3 |
|  |  | TECH 3591 | 3 |
| PROTC OR PHED | $\frac{1.2}{\text { PROTC or PHED }}$ | $\frac{1.2}{18.19}$ |  |


| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| HIST 2601 | 3 | HIST 2602 | 3 |
| TECH 3400 | 3 | TECH 3388 | 3 |
| TECH 3408 | 3 | TECH 3401 | 3 |
| FIR 3310 | 3 | TECH 3491 | 3 |
| TECH 3531 | 3 | ENGL 3601 | 3 |
| TECH 3601 | 3 | Gen Elect | 3 |
|  | 18 |  | 18 |


| SENIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| TECH 3412 | 3 | TECH 3472 | 3 |
| TECH 3414 | 3 | TECH 4520 | 3 |
| TECH 3471 | 3 | TECH 4510 | 3 |
| Elective (Technical) | 3 | TECH 4381 | 3 |
| TECH 3440 | 3 | Elective (Technicel) | 3 |
| TECH 3409 | 1 |  |  |
|  | 18 |  | 15 |

## ELECTRONICS TECHNOLOGY

This area of study is designed for students interested in the application of electronics theory and techniques to the fields of communications, control instrumentation, and computer electronics. Requirements for this major are as follows:

| FRESHMAN YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| ENGL 1101 | 3 | ENGL 1102 | 3 |
| MATH 1213 | 3 | TECH 1010 | 3 |
| COMM 1311 | 3 | CHEM 1051 | 4 |
| TECH 1411 | 1 | MATH 1321 | 4 |
| TECH 1511 | 3 | TECH 1811 | 3 |
| TECH 1711 | 3 |  |  |
| ROTC or PHED | . | ROTC OR PHEO | - |
|  | 16 |  | 17 |



- A minimum total of 4 semester hours of PHED end/or ROTC is required for greduation.

|  | JUNIOR YEAR |  |
| :--- | ---: | ---: |
| HIST 2601 | 3 | HIST 2602 |
| TECH 3231 | 3 | TECH 3232 |
| ENGL 3601 | 3 | TECH 3408 |
| TECH 3811 | 3 | TECH 3409 |
| TECH 3821 | 3 | 3 |
| TECH 3841 | 3 | TECH 3822 |
|  | 18 |  |
|  |  |  |


|  | SENIOR YEAR |  |  |
| :--- | ---: | ---: | ---: |
|  |  |  |  |
| TECH 4381 | 3 | TECH 4234 | 4 |
| TECH 4801 | 4 TECH 4811 | 3 |  |
| TECH 4233 | 4 TECH 4841 | 3 |  |
| TECH 4474 or |  | TECH 4944 | 3 |
| TECH 4476 | 3 | Elective (Generel) | 3 |
| Elective (Generel) | 3 |  | 16 |

## MANUFACTURING TECHNOLOGY

This program is for those individuals interested in careers in any of the manufacturing and service industries. Students will study a combination of technological and mechanical concepts coupled with quantitative management techniques that will enable them to plan, control, design, and manage complex computer controlled, automated industrial systems.
Graduates of the program will be prepared to work in a support role in the areas of manufacturing engineering, computer integrated manufacturing, quality assurance, plant engineering, and production management.

| FRESHMAN YEAR |  |  |  |
| :--- | ---: | ---: | ---: |
| ENGL 1101 | 3 | ENGL 1102 | 3 |
| MATH 1213 | 3 MATH 1321 | 4 |  |
| TECH 1010 | 3 | COMM 1311 | 3 |
| TECH 1411 | 1 | TECH 1811 | 3 |
| TECH 1611 | 3 | TECH 1811 | 3 |
| TECH 1711 | 3 |  | 3 |
| ROTC or PHED | 1.2 | ROTC or PHED | $\frac{1.2}{17.18}$ |

## SOPHOMORE YEAR

| ENGL 21.. | 3 | ENGL 21.. |
| :--- | ---: | :--- |
| PHYS 2111 | 4 | PHYS 2112 |
| CHEM 1051 | 4 TECH 2251 |  |
| TECH 2944 | 4 | TECH 2511 |
| HIST 2601 | 3 HIST 2602 |  |
| ROTC or PHED | 1.2 | ROTC or PHEO |
|  |  | 19.20 |

## $\begin{array}{r}3 \\ 4 \\ 4 \\ 3 \\ 3 \\ 1.2 \\ \hline 18-19\end{array}$

| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| ENGL 3601 | 3 | TECH 3718 | 3 |
| TECH 3350 | 3 | TECH 3386 | 3 |
| TECH 3400 | 3 | TECH 3401 | 3 |
| TECH 3408 | 3 | TECH 3550 | 3 |
| TECH 3421 | 3 | TECH 3573 | 3 |
| TECH 3440 | 3 | TECH 4460 | 3 |
|  | 18 |  | 18 |

## SENIOR YEAR

| TECH 3409 | 1 | TECH 4381 | 3 |
| :--- | ---: | :--- | ---: |
| TECH 4462 | 3 | TECH 4466 | 3 |
| TECH 4464 | 3 | TECH 4476 | 3 |
| TECH 4472 | 3 TECH 4571 | 3 |  |
| TECH 4474 | 3 | Elective (Generel) | 3 |
| TECH Elective | 3 |  | 3 |
|  |  |  | 15 |

TECH 3410, 4470, 4478, 4944. and 4950.

- A minimum total of 4 semester hours in PHED end/or ROTC is required for greduation


## COMPUTER SYSTEMS TECHNOLOGY

This area of study is designed to prepare for positions that require a knowledge of computer architecture and programming and the application of computers in various industries. Electives may be selected to provide a strong background in one or more areas of study.

FRESHMAN YEAR

| ENGL 1101 | 3 | ENGL 1102 |
| :--- | ---: | :--- |
| MATH 1213 | 3 | MATH 1321 |
| TECH 1010 | 3 | TECH 1811 |
| TECH 1411 | 1 | CHEM 1051 |
| TECH 1511 | 3 | ROTC or PHEO |
| TECH 1611 |  |  |
| or |  |  |
| TECH 1711 | 3 |  |
| ROTC or PHED |  | 2 |
|  |  | 18 |

16

SOPHOMORE YEAR

| ENGL 210- | 3 | ENGL 210- |  |
| :--- | :--- | :--- | :--- |
| PHYS 2111 | 4 | PHYS 2112 |  |
| TECH 2251 | 4 | TECH 2821 |  |
| TECH 2944 | 4 | Elective (Generel) |  |
| COMM 1311 | 3 | TECH 2261 |  |
|  |  |  |  |
|  |  |  |  |

## JUNIOR YEAR

| HIST 2601 | 3 | HIST 28D2 | 3 |
| :--- | :--- | :--- | :--- |
| TECH 3231 | 3 TECH 3232 | 3 |  |
| TECH 3350 or |  | TECH 3271 | 4 |
| TECH 3421 | 3 Technicel Elective | 3 |  |
| Technicel Elective | 3 | 3 |  |
| TECH 3408 | 3 |  | 3 |
| TECH 3409 | 1 |  |  |
|  | 18 |  | 16 |


| SENIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| TECH 4251 | 4 | TECH 4944 | 4 |
| TECH 4233 | 4 | TECH 4234 | 4 |
| TECH 4261 | 4 | TECH 4271 | 4 |
| TECH 4474 | 3 | TECH 4462 | 3 |
| TECH 4381 | 3 | Gen Elect | 3 |
|  | 18 |  | 18 |

## TRADE AND INDUSTRIAL VOCATIONAL-TECHNICAL EDUCATION

(Bachelor of Science in Technology)
This major is designed for students planning a teaching career in Trade and Industrial Education, Technical Education or Industrial Arts Education. Emphasis can be placed on either the secondary or the post secondary school program. The student may major in Trade and Industrial Vocational-Technical Education with a general concentration or with a concentration in Industrial Arts. Specific requirements are as follows:

Trade and Industrial/VTED Core:

| FRESHMAN YEAR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ENGL 1101 |  | 3 | ENGL 1102 | 3 |
| MATH 1211 |  |  | HLTH 1102 | 3 |
| (Note 1) |  | 3 | PSYC 1101 | 3 |
| $\begin{aligned} & \text { Science/Lab } \\ & \text { (Note 2) } \end{aligned}$ | $3-4$ | 3 | $\begin{aligned} & \text { Science/Lab } \\ & \text { (Note 2) } \end{aligned}$ | 3-4 |
| VTED 1011 |  | 3 | *PHED or ROTC | 1-2 |
| *PHED or ROTC |  | 1-2 | Occup Specialty | 3 |
| Occup Specialty (Note 3) |  | 3 | (Note 3) |  |
|  |  | 16-18 |  | 16-18 |

NOTES FOR INDUSTRIAL ARTS CONCENTRATION:

1. MATH 1213.
2. CHEM 1051; PHYS 1111, 1112.
3. TECH 1511, 1711.

## SOPHOMORE YEAR



NOTES FOR INDUSTRIAL ARTS CONCENTRATION:

1. CHEM 1051; PHYS 1111, 1112.
2. TECH 1611, 2511,3601 or 3611,3718
3. EDUC 3000
4. EDUC 3302 required.

Trade and Industrial/
VTED Concentration:

| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| EDUC 3401* | 2 | VTED 4120 | 3 |
| VTED 4110 | 3 | VTED 4363 | 3 |
| VTED 4140 | 3 | SCED 4342 | 2 |
| VTED 4310 | 3 | Elective | 3 |
| VTED 4361 | 2 | Occup Specialty | 6 |
| Occup Specialty | 3 |  |  |
|  | 16-17 |  | 17 |
| SENIOR YEAR |  |  |  |
| VTED 4210 | 3 | VTED 4230 | 3 |
| VTED Elective** | 3-9 | or |  |
| Elective | 3 | VTED 4901 | 3-12 |
| Occup Specialty | 6 | VTED 4611 | 3 |
|  |  | VTED Elective | 3 |
|  |  | VTED 4220 | 3 |
| $\overline{15-21}$ |  |  | 3 |
|  |  |  | 15-24 |

* A minimum total of 4 semester hours of PHED and/or ROTC
is required for graduation.
** Includes VTED 4010 or equivalent.

Industrial Arts Concentration:

| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| TECH 1811 | 3 | TECH 1821 | 3 |
| TECH 3410 | 3 |  |  |
| ART 2213 | 3 | TECH 3831 | 3 |
| (Note 1) |  | TECH 4355 | 3 |
| EDUC 3401 | 2 | ART 2221 | 3 |
| TECH 3601 | 3 | (Note 1) |  |
| or |  | SCED 4342 | 2 |
| TECH 3611 | 3 | VTED 4210 | 3 |
| VTED 4310 | 3 | TECH 3718 | 3 |
|  | 17 |  | 17 |
| Note 1: JOUR 2520 may be substituted for either Art course. |  |  |  |
| SENIOR YEAR |  |  |  |
| TECH 3350 | 3 | HUM Elective | 3 |
| VTED 4361 | 3 | EDUC 4601 | 2 |
| VTED 4362 | 3 | EDUC 4800 | 1 |
| Elective (Soc. Sci.) | 3 | VTED 4901 | 9 |
| EDUC 3600 | 3 |  |  |
|  | 15 |  | 15 |

## THE MINORS

These minors may be selected by students who have majors other than any of the Engineering Technology majors.

## SAFĖTY:

TECH 2431, 3386, 4525, 4470, 4950, 4961; PSYC 3301: MGMT 3110; BIOL 1631 .
SURVEYING:
GEOG 3501, 3511; TECH 1411, 1451, 1511, 3451, 3591; MATH 1213, 1321.
TECHNOLOGY:
TECH 1411, 1511, 1711, and 15 additional semester hours
in technology courses, 9 semester hours of which must be from the upper division in one of the specific technology areas.

# The School of Nursing 

NORMA J. LONG, B.S.N., M.S.N., D.N.Sc., Dean Room 316, Manning Hall

## ACADEMIC PROGRAMS

| Department | Major | Concentration Within Major | Degree Offered |
| :--- | :--- | :--- | :--- |
| $*$ | Nursing |  | Bachelor of Science in Nursing (B.S.N.) |

*The College is not comprised of departments.

## PURPOSE

The School of Nursing at Memphis State University provides a unique educational opportunity for registered nurses who are graduates of a diploma or associate degree program in nursing to earn a Bachelor of Science in Nursing. This program was developed in response to the educational needs of registered nurses in the West Tennessee area. The specific purposes of the School of Nursing are as follows:

1. Provide a route to professional practice through providing a curriculum leading to a Bachelor of Science in Nursing.
2. Provide an upper division course of study which is flexible and responsive to the individual learner's needs.
3. Broaden the career opportunities and goals of registered nurses through increasing their competencies in conceptual, functional, and human peeenc
skills.
4. Prepare nurses who demonstrate skill in prob-lem-solving and analytical competence in the care of clients in a variety of settings.
5. Develop leadership skills which enable the registered nurse to more effectively work within the health care system.
6. Prepare for career mobility by providing basic preparation for graduate study.

## ORGANIZATION

The School of Nursing is organized as one unit under the leadership of a dean.

Nursing courses are offered only at the upper division level. Specified general education requirements and credit awarded for nursing courses taken to obtain an associate degree or diploma in nursing comprise the lower division of the program.
The School of Nursing is fully accredited by the National League for Nursing.

The curriculum is an integrated program which focuses on preparing nurses to provide a comprehensive service of assessing, promoting and maintaining the health of the individual as well as groups. A comprehensive approach to health care is emphasized through the utilization of a variety of health care settings which are
available in Memphis and the surrounding community.

The faculty of the School of Nursing represents all clinical areas of nursing practice and a variety of experiences and interests. They reflect this diversity in their teaching, practice and research and thus are well qualified, in addition to academic credentials, to function as facilitators of learning.

## ADMISSION

In addition to meeting all admission or readmission requirements of the University, the following requirements must also be met:

1. Graduation from an approved associate degree or diploma program in nursing.
2. Declaration of Nursing as a major.
3. Current licensure as a registered nurse.
4. A cumulative grade point average of 2.00 or higher.
5. Interview with School of Nursing advisor and filing of Intent Form.

## ADVISING

Students who declare nursing as their major should seek academic advisement in the School of Nursing, even though they may be enrolling in lower division requirements. A faculty advisor will be assigned to each student when the Intent Form is filed with the School.

## LOANS AND SCHOLARSHIPS

Students are encouraged to inquire about financial assistance through the Student Financial Aid Office. Some scholarships are also available through the School of Nursing for students enrolled in clinical courses. Applications for scholarships are available in the School of Nursing office.

## RESIDENCY

University residence requirements are explained in detail in the Graduation from the University section of this catalog. Note that students transferring from a community or junior college must complete a minimum of sixty semester hours in an accredited senior institution.

## DEGREE REQUIREMENTS

A minimum of 133 semester hours is required for the Bachelor of Science Degree in Nursing. The required curriculum is described in the following section.

## Lower Division Requirements

English: ENGL•1101, •1 102 (with minımum grede of C) end two of the following 2101, 2102, 2103, 2104, 2105. 2106 Hiatory: HIST 2601. 2602
Science: BIOL•1731. -1732. •1400; CHEM *1051. • 1052 (with minimum grede of C end within the last 15 yeers or current validation by testing).
Physicel Education: two semesters of activity courses
Methemetics: MATH '1181 or higher.
Nursing: ${ }^{-30}$ semester hours
Humenities: 3 semester hours from art. foreign languages. music, philosophy, or theatre and communicetion erts.
Behoviorel Science: 9 semester hours es follows: EDPS -2111, PSYC-1101, ANTH - 1200 or SOCI * 1111 , developmental psychology or human growth and development ere cruciel to program and must show on transcript.

- Prerequisite courses which must be completed prior to enrolling in Clinical Nursing 1. 3102

Regulations: If fifteen years has lapsed since credit was earned in Biology 1731 and 1732 (Anatomy and Physiology). Biology 1400 (Microbiology), and Chemistry 1051 and 1052 or Chemistry 1111 and 1112 , the content is considered outdated, and students are required to repeat these courses or validate credits by examination. The NLN tests in Anatomy and Physiology, Chemistry and Microbiology are used to measure current knowledge in these fields. A score of fifty percentile or higher is required.

## Upper Division Requirements

The following requirements must elso be met for greduetion Nursing: NURS 3000. 3002. 3101, 3102, 3200. 3400. 4000. 4100. 4200.

Reseerch/Stetistics: EDRS 4541. 4542.
Social Science Elective: 3 semester hours (eny upper division course in International Studies, Sociology. Anthropology. Psychology, Geogrephy. Politicel Science. Economics, Criminel Justice, History, Philosophy. Journelism, or Communicetions).
Biology: 8IOL 3440 .
Elective: 3 semester hours (eny upper division course).
Regulations: Students may enroll in the non-clinical nursing courses and other upper division classes if it is considered beneficial to the student's progress. However, before enrolling in the first clinical nursing course, Nursing 3102, the student must make a formal application and demonstrate the following:

1. Score in the fiftieth percentile (50\%) or higher on the NLN Comprehensive Nursing Test.
2. Completion of all prerequisite courses.
3. Evidence of current licensure, liability insurance, and statement of good health.
The following represents a common curriculum plan for the upper division levels:

| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| NURS 3102 <br> - NURS 3002 <br> -NURS 3101 <br> -8IOL 3440 | $\begin{aligned} & (3) \\ & (3) \\ & (3) \\ & (3) \\ & \hline \end{aligned}$ | NURS 3200 <br> - NURS 3000 <br> -Sociel Science ELECTIVE | (6) (3) (3) |
|  | 12 |  | 12 |
| SENIOR YEAR |  |  |  |
| NURS 4000 NURS 4100 | (13) | NURS 4200 EDRS 4542 | (6) |
| -EDRS 4541 | (3) | - ELECTIVE | (3) |
|  | 12 |  | 12 |
| - Pert-time students mey complete these prior to beginning clinicel courses. |  |  |  |

## CREDIT BY EXAM

Credit for some of the upper division nursing courses may be earned through credit by examination. Other methods of earning credit are explained in detail in the Academic Regulations section of this catalog.

# The University College 

H. RAMSEY FOWLER, A.B., A.M.T., Ph.D., Dean<br>Room G-1, Johnson Hall

## ACADEMIC PROGRAMS

| Department | Major | Concentration Within Major | Dagrae Offarad |
| :--- | :--- | :--- | :--- |
| $\bullet$ | Individual Studies | $\cdots$ | Bachelor of Liberal Studies (B.L.S.) <br> Bachelor of Professional Studies (B.P.S.) |

[^2]
## PURPOSE

The University College offers nontraditional degrees for those students whose experience, talents, and interests are best served through a program which emphasizes personally designed education. Through the University College, faculty, students, and off-campus professionals have the opportunity to work together unrestricted by departmental or college boundaries. The college provides individually designed programs for persons whose career goals, academic needs and interests are not met by existing majors, but by appropriate combinations of integrative interdisciplinary courses offered by the University College, existing courses offered by other colleges, credit by examination, credit for non-traditional learning, and internship experiences. For faculty across the University, the University College provides the structure to explore and develop interdisciplinary ventures that may later be subsumed into other degreegranting units. In addition, the College encourages the development of interdisciplinary courses and promotes such alternative instructional methods as teamteaching and teleinstruction. Finally, it seeks to create and maintain a spirit of academic community through careful and concerned advising, and interaction outside the classroom among students, faculty, and staff. The Bachelor of Liberal Studies and Bachelor of Professional Studies degree programs are complementary to the University's role of meeting the academic needs of a diverse population in an urban setting.

## ORGANIZATION

The University College both depends upon and contributes to existing programs at the University through creative use of existing faculty and programs to satisfy legitimate degree program needs which are not currently met. The college has no permanent or full-time faculty of its own; it draws instead on the faculty of other colleges of the University for instructors and advisors. These faculty members serve on a short-term basis while maintaining primary affiliation with their own departments. The knowledge and experience of the faculty from several disciplines enables the University College to offer truly interdisciplinary courses and a broader base for effectively advising students. At the same time, faculty serving the University College gain new perspectives and associations which they may contribute to their own colleges.

The Faculty Council is composed of twelve faculty members from the other five colleges of the University. The Council is jointly responsible with the Dean of the University College in establishing requirements for the selection of the
faculty, determining admissions, curriculum and degree requirements, and approving group contract degrees designed for students with similar program needs. In addition, the Council gives advice and counsel to the dean. The students of the University College also serve an advisory role to the Faculty Council and the dean.

## ADMISSION

After an applicant has been admitted to Memphis State University through the Office of Admissions and Records, application for admission to the University College may be made in the Office of the Dean. The University College welcomes inquiries from persons who believe that their interests will be best served by a program which emphasizes personally designed evaluation through contract degrees.

Included in the University College application are a statement of the applicant's educational and career goals and his reason for seeking to fulfill them by means of a University College program. Three letters of recommendation and a $\$ 15.00$ screening fee must be submitted, as well as descriptions of work experience, interests, and activities related to career goals.

A letter from the Dean of the University College assigns applicants to temporary advisors for screening interviews, the purpose of which is to determine whether the applicants' needs are best met in the University College or elsewhere. If the temporary advisor recommends acceptance and the dean agrees, students receive letters of acceptance from the dean instructing them to work with their Contract Advising committees on the development of their baccalaureate contracts and reminding them that they must pay $\$ 25.00$ contract/advising fees. Contract/Adivising committees work with students to develop degree programs which serve the students' needs and the academic requirements of the University College of Memphis State University.

Students may transfer into University College more than the ordinary limit of extension, correspondence or armed services courses, provided they are an integral part of the degree program. A minimum of 60 semester hours of the degree program must be received from a four-year institution.

## THE UNIVERSITY COLLEGE DEGREES

## The Contract Degree

Students enrolling in the University College may elect either of two degree programs: the Bachelor of Liberal Studies
(BLS) or the Bachelor of Professional Studies (BPS). Both of these degrees must be awarded for programs which are systematic, yet are sufficiently flexible to permit students and advisors to design individual programs of study, i.e., learning contracts.
All contracts will be reviewed and approved by the administration of the University College, but individual contracts will be designed by a Contract/ Advising Committee whose responsibility is to assist the student in the development and execution of a degree program which serves the student's needs and meets the academic requirements of the University College and of Memphis State University. The chairperson and one other committee member must be regular or adjunct members of the Memphis State University Faculty. An additional committee member may be an appropriate student or offcampus resource person. The committee may direct the student in the preparation of a portfolio to obtain credit for knowledge gained through experience or nontraditional instruction; see Fees and Charges, for a description of credit evaluation fees. The Baccalaureate Contract will include work in these major areas: Liberal Studies, Thematic Studies, Coordinated Study, Special Project, and Electives.

## Liberal Studies

Liberal Studies constitute the general education component of the University College. The studies are designed to develop a capacity for effective living through emphasis on integration of the academic disciplines as well as through analytic skills. Each Liberal Studies course is taught by a faculty team drawn from different disciplines; each course examines the values which form the basis of decisions and judgments. The Liberal Studies area is composed of six studies, plus Mathematics 1181 or another mathematics course at the same level or above, or Philosophy 1611 . These courses total 37 semester hours and serve as a core for both degrees; they are to be completed by all BLS and BPS candidates. While the specific content of the courses will vary from semester to semester, general course descriptions are included in the Catalog. Although this component of the program is interdisciplinary, provision is made for transfer credit from other colleges and credit by examination. Each student will complete a minimum of one Liberal Studies course IUNIV 1010, UNIV 1020, UNIV 1210. UNIV 1410, UNIV 1610. UNIV 1810).

## Thematic Studies

Thematic Studies cross departmental and disciplinary lines to examine a theme, problem, issue, or epoch from several points of view. As upper-division courses, they are designed to provide ways for undergraduates to integrate the full scope
of their studies more effectively than they are able to do within the traditional departmental structure. Thematic Studies do, however, require the special knowledge and expertise learned from and fostered by the traditional disciplines. A BLS student will complete a minimum of two Thematic Studies; a BPS student, a minimum of one. Thematic Studies courses carry 6 or 9 semester hours credit each.

## Coordinated Study

The Individualized Study component of the program includes a Coordinated Study Program of at least 30 upper-division hours in at least two academic disciplines, plus a special synthesizing project ( 9 semester hours). Credit may be earned through courses offered by departments in the other degree-granting colleges, credit by examination, credit for experiential learning, internships or apprenticeships, independent studies, additional Thematic Studies courses, and the Special Project. For a University College student, the Coordinated Study Program corresponds to a departmental major. Students must average $C$ or above in 30 upperdivision hours of their Coordinated Study Program.

## The Special Project

The Special Project will be designed by the Contract/Advising Committee as a synthesizing activity, interdisciplinary in nature, by which the student demonstrates in a sustained manner comprehension and command of the complex skills and understanding encompassed in the degree program. The Special Project carries 9 semester hours credit.

## Electives

Students are encouraged to select electives so as to support their coordinated study programs.

## DEGREE REQUIREMENTS

| LIBERALSTUDIES SEMESTER HOURS |  |
| :--- | ---: |
| UNIV 1010 | $(6)$ |
| UNIV 1020 | $(6)$ |
| UNIV 1210 | $(6)$ |
| UNIV 1410 | $(6)$ |
| UNIV 1610 | $(6)$ |
| UNIV 1810 |  |
| MATH 1181 or PHIL 1611 |  |
| (or another math course at the same level |  |
| or above) | $(4\rangle$ |
|  |  |

THEMATIC STUDIES
UNIV 35 _ Thematic Studies or UNIV 45 Advanced Thematic Studies 8PS candidates must take six hours of
Thematic Studies
8LS candidates must take twelve hours of Thematic Studies

## COORDINATED STUDY

A Coordinated Study is made up of a minimum of thirty upper division hours from two or more departments

SPECIAL PROJECT
UNIV 4996

## ELECTIVES

varies
TOTAL (minimum)
132

## GROUP CONTRACTS

## Bachelor of Liberal Studies

## Black Studies

Black Studies re-examines history, society and the arts from a different perspective, giving recognition to the achievements of Black Americans and directing scholarship toward the totality of Black experience. In addition, it offers all students an intellectual framework for discerning and dealing with racism; informs and awakens all students to the cultural heritage of Black Americans to promote improved self-understanding regardless of race; and it provides Black students with positive models of leadership, personal development and social commitment.

## Women's Studies

Women's Studies focuses on women's contributions to and experiences in history, language and literature, sociology, philosophy, psychology, business, and the fine arts. Persons interested in Women's Studies will want to discover women's heritage and achievements, to understand women's experience, to reassess and redefine their goals in terms of changing sex roles; or to give special orientation to a liberal arts or social science degree program.

## Bachelor of <br> Professional Studies

## Alcohol and Drug Abuse Services

Students in Alcohol and Drug Abuse Services will develop programs in one of these areas: Therapeutic Services, Social and Public Services, or Administrative Services. All will take a core of courses in alcohol and drug abuse, social, and administrative services, and will complete their programs by taking courses relevant to their concentrations. All students must have on-the-job experience, evaluated through internships, portfolio assessment, or both. Students in Therapeutic Services will be required to complete the minimum hours needed to make them eligible to sit for Tennessee State licensing as Alcohol and Drug Abuse Counselors.

## Aviation Administration

Students in Aviation Administration concentrate in one of these three areas: Business and Management, Public Administration, or Computer and Information Systems. In addition, thirty-four semester hours of academic credit are available for
completion of three categories of FAA journeyman level instruction: Airport Traffic Control Tower, Air Route Control Center, and Flight Service Station. Credit by individual course is granted for Airways Facilities Journeyman and for instruction in all four categories beyond the journeyman level.

## Biomedical Illustration

Students in Biomedical Illustration will take a common core of courses in art, photography, chemistry, and the life sciences. Students in Pre-Medical Illustration will also study figure structure, perspective, drawing, sculpture, medical illustration, etc. Students in Biomedical Photography will take further courses in photography, photographic materials and processes, biomedical photography, etc. Students in both Pre-Medical Illustration and in Biomedical Photography will complete internships in at least one setting in the Memphis area.

## Commercial Aviation

Students in Commercial Aviation will concentrate either in General Aviation or in Airway Science. Students interested in General Aviation will develop programs in general management, personnel and industrial relations, publicity and public relations, technological or computer systems, and the like. Students in Airway Science will develop programs modeled upon the Airway Science Curriculum of the FAA. This curriculum has emphases in Airway Science Administration, Airway Computer Science, and Airway Electronic Systems. This program has been approved by the FAA.

## Fire Administration and

Fire Protection Technology
University College is the regional center for the Open Learning Fire Service Program, serving fire service personnel in Tennessee, Kentucky, Arkansas, Mississippi, Alabama, and Texas. OLFSP is a degree-completion program, offering upper division courses in Fire Adminis tration and Fire Prevention Technology These courses are designed for independent study. Freshman and sophomore courses, electives, and other courses related to the fire service are taken at a college near the student's residence.
CORE COURSES
POLS 3613 Advanced Fire Administration
TECH 3940 Analytic Approaches to Public Fire Protection POLS 3612 Fire Prevention Organization and Management TECH 3944 Fire Protection Structure and Systems Design POLS 3615 The Community and the Fire Threat
POLS 3614 Political and Legal Foundations of Fire Protectio FIRE ADMINISTRATION CONCENTRATION
FIRE ADMINISTRATION CONCENTRATION
POLS 3610 Personnel Management for the Fire
POLS 3610 Personnel Management for the Fire Service POLS 3611 Disaster and Fire Defense Plenning
TECH 3947 Applications of Fire Research
FIRE PREVENTION TECHNOLOGY CONCENTRATION TECH 3942 Fire Related Human Factors
TECH 3945 Incendiary Fire Analysis and Investigation TECH 3946 Fire Dynamics

## Health Care Fields

Students pursuing concentrations one of the Health Care Fields will take a core of courses selected from such areas as Human Growth and Development

Psychology of Personality, Social Psychology, Public Administration, Organization and Management, or Medical Sociology. Students interested in Health Care Administration will then take courses in administration and sound business practices. Students in Health Care Instruction will enroll in courses that increase their skills as teachers and their understanding of health education issues. Students in Community Health will take courses in public policy, community action, urban society, federal, state, and local government, etc.

## Human Services

Students in Human Services will be expected to develop a philosophical orientation to the human condition; to enlarge their understanding of social structures, values and norms; to study human growth and development; and to become informed about social change and social and bureaucratic organization. Students in Human Services will take courses from such departments as Counseling and Personnel Services, Sociology and Social Work, Psychology, Management, and Special Education and Rehabilitation.

## Nuclear Industrial Operations

In cooperation with the Center for Nuclear Studies, University College offers a Bachelor of Professional Studies in Nuclear Industrial Operations. The Coordinated Study consists of a Nuclear Reactor Fundamentals program of 28 semester hours and an Advanced Technical Program of 47 semester hours. Students may enroll in The Advanced Technical Program with permission of appropriate department chairmen.
The Coordinated Study:
I. Nuclear Reactor Fundamentals

MATH 1200 Nuclear Reactor Mathematics
PHYS 2311 General Physics for Technicians I
PHYS 2312 General Physics for Technicians II
PHYS 2313 General Physics for Techniciens III
PHYS 3710 Nuclear Physics for Reactor Applicetions PHYS 4220 Reactor Physics
TECH 2411 Introduction to Instrumentetion
CHEM 1010 Chemistry for Reactor Technicians
810 L 2780 Human Radiation 8iology
II. Advanced Technical Progrem:

MATH 1300 Calculus for Nuclear Power Applications 1
MATH 2300 Calculus for Nuclear Power Applicetions II TECH 3413 Materiels Structure and Properties
CHEM 3010 Corrosion Chemistry

PHYS 3703 Stress Mechanics
PHYS 3700 Thermodynamics for Nuclear Power Applications
CHEM 3031 Chemical Thermodynemics II
PHYS 3702 Nuclear Heat Mechanics
Physics of Fluids
TECH 3801 Electrical Generation and Transmission
PHYS 4221 Advanced Reactor Physics
TECH 3262 Computer Applications in Nuclear Power
$\begin{array}{lll}\text { PSYC } 3599 & \text { Special Topics in Applied Psychology }\end{array}$
UNIV 4380 Independent Study

## Orthotics/Prosthetics and Related Fields

This degree is offered in cooperation with Shelby State Community College. Entering students will normally have completed an Associate of Applied Science Degree in Orthotics and/or Prosthetics before being admitted to this baccalaureate program. Once in it, however, students will concentrate in one of these areas: Patient Rehabilitation, Business Management, or Engineering Technology.

## Services for the Aging

Students in Services for the Aging will take a core of courses in gerontology, adult development, and social policy for the aging. In addition, they will enroll in such other courses as will prepare them to become counselors, managers, teachers, activity directors, family life workers, personnel supervisors, and the like.

## MINORS

## Black Studies

The Minor: 15 semester hours, including 9 hours from core courses and 6 hours from electives:
(e) Core Courses: ENGL 4371, HIST 4881, either COMM 2361 or POLS 4407
(b) Electives: ANTH 3422; MUHL 4802; POLS 4212 ; SOCI $3401,3422,4420$; COMM $3373,4373,4375$, THEA 3461

## Religion in Society

The University College offers an interdisciplinary minor in Religion in Society. This minor examines the role of religion in society as seen from the perspectives of culture and social organization; of history and philosophy; of art and literature. The minor is open to students majoring in any area in any of the undergraduate colleges or to special students who wish to enroll in order to take such a program.

The Minor: 18 semester hours of core courses and electives.
A. Required Core Courses

PHIL 3701 God and Man (3)
ANTH 4253 Anthropology of Religion (3)
SOCI 3860 Sociology of Religion (3)
B. Additional Courses (select one course each from any three of the following four groups of courses):

1. ANTH 3352 Anthropology of Asia

ANTH 4354 Archaeology of the Holy Land
POLS 3102 Religion and Politics
2 PHIL 3411 Contemporary Moral Problems PHIL 3451 Existentialism
PHIL 3511 Ethics
PHIL 3711 Philosophy of Religion
PHIL 3721 Oriental Philosophy
3. HIST 3021 History of the Christian Church

HIST 3290 Traditional Asia
HIST 4361 History of the 8 yzantine Empire
HIST 4371 Early Middle Ages
HIST 4372 High Middle Ages
HIST 4390 Europe - Age of Reformation
4. ENGL 4661 8ible as Literature

ART 4131 Early Christian and Byzantine Art ART 4134 Romanesque and Gothic Art MUSA 4001 Judeo-Christian Music MUSA 4104 Sacred Music in History \& Practice I MUSA 4105 Sacred Music in History \& Practice II MUSA 4801 Studies in Sacred Music

## Women's Studies

The Minor: 18 semester hours. including 9 hours from core courses and 9 hours to be selected from the list given below.
A. Core Courses

UNIV 3700 Women in American Society (6)
HIST 4851 History of Women in America (3)
B. Additional Courses (select 9 hours):

HLTH 4204 Workshop in Sexuality Education
HMEC 4201 Preparation for Marriage
PSYC 4503 Problems in Psychology (Psychology
PSYC 3506 Human Sexuality
SOCI 3432 Sociology of Sex Roles
SOCI 3831 Marriage and the Family
ECON 4910 Problems in Economics
UNIV 4380 Independent Study (1-3)

## EVALUATION

All members of the Contract/Advising Committee evaluate the student's performance, recognizing that each student enrolled in the University College must meet all University credit-hour and QPA requirements. The following methods are used to evaluate a student's performance: the traditional grading systems, Satisfactory/Unsatisfactory and Credit/No Credit options supplemented by written narrative evaluations, credit or placement by examination, Advanced Placement examinations for degree credit where these are available, and credit for validated learning from experience or non-traditional instruction.

# Independent Departments and Programs 

JOHN R. DILL, B.S., M.A., Ph.D.<br>Associate Vice President for Academic Affairs<br>Room 319, Administration Building

# ACADEMIC PROGRAMS 

| Department | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Urban Studies | †Urban Studies |  | Bachelor of Arts (B.A.) |
| - ${ }^{\text {International Studies }}$ | $\dagger$ Latin American Studies |  | Bachelor of Arts (B.A.) |
|  | International Relations | (1) American Foreign Policy <br> (2) Western Europe <br> (3) Latin America <br> (4) Asia <br> (5) Soviet <br> (6) Sub-Saharan Africa <br> (7) Middle East and North Africa | Bachelor of Arts (B.A.) |
|  | African Studies |  | Certificate |

- See also the listing for the Fogelman College of Business and Economics
tCollateral Major recommended.

Independent departments and programs are those which are not affiliated with a particular college in the University. The undergraduate independent departments or programs are Aerospace Studies (AFROTC), International Studies, Military Science (Army ROTC), Naval Science, University Honors Program, and Urban Studies. Because they are not part of a particular college, there is no dean; therefore, the Associate Vice President for Academic Affairs performs the duties of a dean for these areas and for students enrolled in these programs.

## INTERNATIONAL STUDIES

## ASSOCIATE PROFESSOR JAMES K. MUSKELLEY, Director <br> Office of International Studies. Winlield Dunn Building 310

The Office of International Studies coordinates and assists in the development of the University's teaching, research and service activities in the international field. Undergraduate interdisciplinary programs for which the Office of International Studies has coordinating responsibility are those in Latin American and African studies, international relations and international business. General descriptions of the programs follow below and detailed information on them may be obtained from the Office of International Studies and program advisors.

This office is responsible for the conduct of Memphis State sponsored overseas study and work programs. Current information on these programs and on many others open to Memphis State students is available for reference in this
office, and students will be assisted in selecting programs which will best serve their educational needs. Participation in study-and work-abroad programs is not limited to those enrolled in the international studies programs, but is open to all qualified persons.

The Office of International Studies is also prepared to assist students who are interested in participating in overseas exchange programs sponsored by governmental and private organizations. Advanced graduate students engaged in foreign area and international research and study may obtain information about grant opportunities that may be available to them. In cooperation with the Office of Sponsored Programs, the Office of International Studies will give advice and assistance to those interested in applying for financial aid from non-University sources.

The office has responsibilities in a broad range of other international programs in which the University is currently engaged or is prepared to engage. Among these activities are the following: development and administration of interinstitutional consortia in the fields of international studies and programs, including overseas development and technical assistance; the offering of non-credit courses, orientation seminars and training programs for businesses and other organizations with international interests; maintenance of a "talent bank" file on University personnel possessing language skills and foreign area expertise; sponsorship of lectures and seminars on international topics of interest to the University and non-University communities; and dissemination of information about international programs of the University.

## International Studies

## AFRICAN STUDIES

Memphis State University's interdisciplinary program in African Studies, coordinated by the University's Office of International Studies, is open to students majoring in another interdisciplinary field or in a traditional discipline in any of the undergraduate colleges. Those who successfully complete the program will be awarded the Certificate in African Studies. The student's record will reflect the award of this certificate.

The African Studies certificate program is designed to serve the needs of students seeking a general education that emphasizes knowledge of this important world area, those who plan to teach in the elementary or secondary schools, and those who plan to do graduate work in an African or Afro-American field.
The candidate for the Certificate in African Studies will take courses in the fields of African anthropology, geography, history, and politics. There are no special language requirements for the program, but students planning to do graduate work in tbe field are urged to acquire a working knowledge of French or Portuguese. All students enrolled in the certificate program are encouraged to take advantage of opportunities for study or travel in Africa. Admission to the program is by consent of the African Studies advisor. The advisor will assist the student in planning his program in accordance with the requirements and his special interests. Requirements are listed below. The African Studies advisor is Dalvan M. Coger, Department of History.

## AFRICAN STUDIES

The Certificete: 21 semester hours from the following courses: ANTH 3242, 3342; HIST 4281, 4282, 4283; POLS 3309; INTL 4301, 4302. At least one course must be teken within each of the three departmental areas (anthropology, history, and political science), and the interdisciplinary sequence course. INTL 4301-4302, is required of all candidates for the Certificate in African Studies.

## INTERNATIONAL BUSINESS

A program leading to the degree of Bachelor of Business Administration with a major in International Business is offered with the Fogelman College of Business and Economics. Several departments of the College of Arts and Sciences participate in the program. The International Business advisor is John J. Reid, Department of Economics. For a description of the program and degree requirements, see the program descriptions for the Fogelman College of Business and Economics earlier in this section.

## INTERNATIONAL RELATIONS

The International Relations program provides the opportunity to bring the knowledge of several traditional disciplines to bear upon a focal point of human relationships and problems which cross national and cultural boundaries. The program is designed to serve the student who seeks knowledge of the range of contemporary and possible future problems which confront international society and understanding of alternative national and cultural perspectives on solutions to those problems. The program also serves the needs of students planning a career in the Foreign Service or related agencies of the federal government and students preparing for employment abroad in the private sector, or in international organizations, private or public.

International Relations is offered as a major only. The program emphasis is on the course work in history, political science, economics, and geography, with contributions from other social science disciplines. Within the program, the student is required to concentrate a part of the work in the field of American foreign policy or in one of six areas of the world. Students are encouraged to pursue the study of a foreign language and to seek opportunities for travel and study abroad. The student's program should be planned in consultation with the International Relations advisor. Course requirements are listed below. The International Relations advisor is J. Rex Enoch, Department of Sociology.

## INTERNATIONAL RELATIONS

The Mejor: 30 semester hours, including ECON 35B0, 4340 and/or 4350 ( 6 hours of economics); POLS 2501, 4501. 4508, end 3505 or 4504; INTL 4601; and three courses, in at least two disciplines, from one of the following areas of concentration:
(e) Americen Foreign Policy: ECON 35B0; GEOG 4421; HIST 3803, 4811; POLS 2301, 3506,4506; either POLS 3505 or 4504.
(b) Western Europe: GEOG 4304; HIST 3506, 4145, 4461;
POLS 3302 POLS 3302.
(c) Latin America: ANTH 3232, 3930 or SOCI 3930; GEOG 4324, 4325; HIST 32 12.4240, 4250; POLS 3306, 4306.
(d) Asie: GEOG 4306; HIST 3291, 4292, 4294. 4295; POLS 3307, 4307.
(e) Soviet Union: GEOG 4305; HIST 4162, 4163: POLS 4305, 4502, 4505.
(f) Sub-Seharan Africe: ANTH 3242, 3342; HIST 4281, 4283. (g) Middle Eest and North Africa: HIST 4282, 3271; POLS 3309.

NOTE: The student electing the major in Internationa Relations is advised to take the following courses to insure that he hes an adequate background for the required that he hes an adequate background 10; 2110 GEOG 2301 2311; HIST 1301, 1302, INTL 1101, 1102.

## LATIN AMERICAN STUDIES

The Latin American Studies program offers an interdisciplinary approach to the study of Spanish or Portuguese America. It is designed primarily to serve the needs of students who are planning a career in Latin America or who will work with public or private institutions in capacities that require a broadly based knowledge and understanding of Latin America. It is also structured to meet the needs of students who wish to prepare for graduate study in programs permitting a Latin American concentration, either within a traditional discipline or in an advanced interdisciplinary program. This program is centered on the Spanish and Portuguese languages and Latin American geography, history, literature, and politics. Appropriate courses in anthropology, art, economics, and sociology are also included in the program.

The student may elect Latin American studies as a major or minor. It is strongly recommended, but not required, that the student electing to major in this interdisciplinary field satisfy requirements for a collateral major in one of the traditional disciplines represented in the program. The student is advised that proficiency in spoken Spanish or Portuguese is very desirable for those contemplating a career in Latin America and to participate in Memphis State University study-abroad programs in that area. The student's program should be planned in consultation with the Latin American Studies advisor. Course requirements are listed below. The Latin American advisor is John A. Sobol, Department of Geography.

## LATIN AMERICAN STUDIES

The Mejor: 24 semester hours, including 21 hours from the group of core courses and 3 hours from the group of electives listed below:
(a) Core Courses: GEOG 4324, 4325; HIST 3211, 3212; INTL 4201; POLS 3306; SPAN 3511 or 3512.
(b) Elective Courses. ANTH 3232, 3332; ART 4162,4163 ECON 35BO; HIST 4240, 4250; POLS 4306, 4503; SOCI 3930; SPAN 4561, 4562.
NOTE: The student must have a reading knowledge of Spanish (to the proficiency level expected upon completion of the second year college course) to satisfy the requirements of the major. It is recommended that he obtain a collateral major in one of the traditional disciplines represented in the program.
The Minor: 12 semester hours. including GEOG 4324 or 4325 ; HIST 3211,3212 POLS 3306.
NOTE: The foreign language requirement for the minor is the same as for the major

> URBAN STUDIES
> ASSOCIATE PROFESSOR MELVIN C. BARBER, Coordinator

> Room 128, OId Brister Library

The Urban Studies Program is interdisciplinary in nature and deals with issues and problems in complex urban environments. The program focuses attention on "the city" - how it evolved, its structural and functional characteristics,
and alternative directions for its growth. In addition to the development of a conceptual framework for the city, the courses in the Urban Studies Program stress participation in local research projects in the areas of housing, pollution, transportation, underemployment and urban life styles. An urban internship in a regional Midsouth public agency is both available and encouraged through the program.
The program's broad orientation and its attention to the causes and consequences of urban problems provides an excellent background for urban careers in organizations such as community action agencies, urban social service agencies, health planning agencies, and local and county government.
The Urban Studies program is offered through the cooperation of the departments of Anthropology, Economics, Geography, History, Political Science, and Sociology and Social Work. The above departments as well as other participating departments such as Management, Civil Engineering, Criminal Justice, and Theatre and Communication Arts provide the Urban Studies student with the opportunity for personal faculty advising in his area of interest as well as involvement in the faculty member's ongoing research projects in the surrounding area.

The student may elect Urban Studies as a major or minor. It is recommended, but not required, that the students majoring in Urban Studies choose a collateral major in one of the traditional disciplines represented in the program. The requirements for the major are listed below.
The Urban Studies major leads to a B.A. degree which is awarded through the College of Arts and Sciences. Degree requirements for the B.A. are listed with the program descriptions for the College of Arts and Sciences earlier in this section. The student's program should be planned in consultation with the Urban Studies Coordinator.

## URBAN STUDIES

The Mejor: 33 semester hours (no more than 15 semester hours from any one department may apply toward the major) including:

1. Urban Studies majors must take the Urban Studies Seminar 4001 and at least one three hour course from the following list of social science methods courses: ANTH 3225, GEOG 4531, POLS 3100, or SOCI 3322. A second course may be applied to the urban studies major if the student wishes.
2. Four courses from the following core:

ANTH 4411, ECON 4511, GEOG 4431, HIST 4871, POLS 3224, SOCI 4631
3. Five courses from the following electives: ANTH 4752; ECON 3210, 3810, 3811, 4750; GEOG 3451 , 4201, 4442; HIST 4881; POLS 4221, 4224. 4225; SOCI 3610, 4420, 4620
4. Three hours of approved internships from the following course numbers:
URBN 4995, ANTH 4985. GEOG 4700. HIST 4020, POLS 4230 or 4231 , or SOCI 4912 can count toward the Urban Studies elective hours.
The Minor: 18 semester hours including URBN 4001 and 5 others listed above (in core or in elective sets).

AEROSPACE STUDIES<br>COLONEL DOUGLAS W. STOCKTON, Professor of Aerospace Studies<br>Room 404. Jones Hall

The Department of Aerospace Studies provides a four-year program of instruction for all qualified U.S. citizens, male and female, divided into two phases, each of two years duration. The first, termed the General Military Course, offers instruction in the foundation of leadership and Aerospace-age citizenship. The second, termed the Professional Officer Course, builds upon these foundations in developing upperclassmen who are to become Air Force officers and serve on active duty upon graduation and commissioning. Students may apply for the twoyear or four-year program, or they may enroll one year prior to applying for the two-year program.

Instruction in Aerospace Studies has been an important phase of the curriculum at Memphis State University since 1951. Active duty Air Force personnel, approved by the University President, are detailed by the Department of the Air Force to administer the instructional program. Air Force officers serve under appointment by the University as Professor or Assistant Professor of Aerospace Studies.

## THE GENERAL MILITARY COURSE

The two-year ( 4 semesters) General Military Course consists of one hour a week of classroom instruction and one hour a week in Leadership Laboratory. Textbooks are furnished by the Air Force without charge. Air Force uniforms are furnished and must be properly worn and kept in good condition. A uniform deposit is required for all cadets at the time of registration. Cadets who successfully complete the General Military Course may apply for admission to the Professional Officer Course.

## THE PROFESSIONAL OFFICER COURSE

The Professional Officer Course provides instruction and systematic training to selected eligible students who desire to qualify as officers in the United States Air Force while pursuing their academic studies at the University. Successful completion of the requirements for the Professional Officer Course and for a baccalaureate degree leads to a commission in the United States Air Force as a Second Lieutenant. To be eligible for selection to the Professional Officer Course, a student must have at least two years remaining at the University (undergraduate, graduate, or a combination). Final selection is based on academic standing, leadership potential, percentile score on the Air Force Officer Qualifying Test, and physical qualifications. Senior male cadets who are enrolled in the pilot category will engage in a flying program consisting of 13 hours of flight instruction and 3
semester hours of Elementary Aeronautics (AERO 4413). All members of the Professional Officer Course receive a subsistence allowance of $\$ 100.00$ per month and are issued uniforms provided by the Air Force.

## THE TWO-YEAR PROGRAM

All students who meet qualifying criteria, may apply for selection to the Professional Officer Course under the Two-Year Program if they are not in the Four-Year Program. Processing of applications for the Professional Officer Course begins in the Fall of each year. Application may be submitted through May 31. If selected, the student will attend a six-week field training program during the summer prior to entry into the Professional Officer Course. Graduates of the six-week field training are enrolled in the Professional Officer Course with the same status as cadets in the four-year program.

## LEADERSHIP LABORATORY

This lab is designed around a microcosm of the U.S. Air Force. It gives the cadets the opportunity to develop their leadership potential while allowing the staff to make evaluations based on actual managerial situations.

## AIR FORCE ROTC COLLEGE SCHOLARSHIP PROGRAM

Full scholarships which pay full tuition and fees, full book allowance, transportation to Memphis, and a tax free subsistence allowance of $\$ 100.00$ per month are available to entering freshmen and University students who are competitive academically and will enroll in the Air Force ROTC program. Details concerning qualifications and applications can be obtained from the Department of Aerospace Studies. NOTE: Several loan funds are also available to students enrolled in AFROTC. For more information, contact the department staff.

AFROTC students who accept a scholarship must agree to successfully complete at least one semester of college instruction in a major Indo-European or Asian language prior to commissioning. A major Indo-European or Asian language is one defined as such by the academic institution's foreign language department. Cadets may meet the foreign language requirement by completing a course or by demonstrating proficiency.

## FIELD TRAINING

Offered during the summer months at selected Air Force bases throughout the United States. Students in the four-year program participate in four weeks of Field Training (AERO 3211), usually between their sophomore and junior years. Students applying for entry into the two-year program must successfully complete six weeks of Field Training (AERO 3212) prior to enrollment in the Professional Officer Course.

## MINOR IN AEROSPACE STUDIES

Upon successful completion of 18 semester hours in Aerospace Studies, with a minimum grade of $C$, a cadet may apply for a minor in Aerospace Studies.

## SUPPLEMENTAL COURSES PROGRAM

The AFROTC Supplemental Courses Program (SCP) exists to enhance the career utility and officer performance of persons commissioned through AFROTC. The program consists of required and recommended college/university-taught courses. All contract cadets must successfully complete the required supplemental courses in addition to all Aerospace Studies courses.

General Military Course (GMC): Contract cadets must successfully complete a course in English composition. Additionally, they should be encouraged to take a course in speech. Four-year scholarship cadets must satisfactorily complete the English composition course by the end of the GMC. GMC cadets receiving scholarships of less than four years duration will have two academic years to complete the English composition course. Failure to satisfactorily complete the required supplemental course in the specified period of time will result in termination of scholarship entitlements.

Non-scholarship four-year GMC cadets, two-year program applicants, and persons not required to complete the GMC need not take the GMC supplemental courses prior to POC entry. However, successful completion of GMC supplemental courses may enhance their chances for POC selection.

Professional Officer Course (POC): cadets must successfully complete a course in mathematical reasoning prior to commissioning. Ideally, this course should include the acquisition of a specific skill, for example, statistics, computer science, calculus, etc.

# UNIVERSITY HONORS PROGRAM 

PROFESSOR JOSEPH R. RILEY. Director
Room 128. Old Brister Library

## What the Honors Program Is

The Honors Program has been created to provide exceptional educational opportunities for exceptionally able students. It is expressly intended to nurture the highly motivated, independent individual who seeks a stimulating environment appropriate to the student's unusual potential. The program offers a series of specially designed honors sections and courses, from which students may chose those courses which best suit their own interests and needs. Upon the successful
completion of a minimum of 12 lowerdivision hours in honors courses, including the 1 -hour Honors Forum (UNHP 1100), the honors student is qualified to receive an Honors Certificate and to enroll in an upper-division honors track. Students who do not choose to pursue certification in honors may still enroll in upperdivision honors tracks upon successful completion of 6 lower-division hours in honors courses. In order to graduate with honors, a student must complete successfully a minimum of 18 semester hours of honors work, at least 12 hours of which must be upper-division courses offered as part of an approved upper-division honors track. Depending upon which honors track is chosen, a student who completes the Honors Program can be graduated with department, college, and/or University honors. For example, a student might graduate "with honors in English (or economics, or history, etc.)," "with honors in Education, "with University honors," or with combinations of these.

The University Honors Program is governed by the Honors Council, a committee composed of the Director of the Honors Program, the Assistant Director of the Honors Program, six faculty members chosen by the Academic Senate, and two honors students elected by the Honors Student Association. The Program is housed in Old Brister Library, Rooms 128-130, where the office of the Director is located; as well as a seminar-conference room and an honors lounge, open to all students who are active in the Honors Program.

## Admission to the Program

Incoming freshmen who score at least 26 on the ACT, or its equivalent on other tests, are invited to participate. Transfer students or students previously enrolled at Memphis State University are eligible for the program if they have an overall grade point average of 3.0 for freshmen and sophomores and of 3.25 for upperdivision students. Those who do not qualify in one of these ways will be considered upon direct application or receipt by the Director of a recommendation from high school or college faculty.

## Curriculum and Requirements

Description of a typical honors plan is as follows:

Lower Division: Honors students at this level take specially designated sections of freshman and sophomore courses offered by departments throughout the University. Enrollment is limited to fifteen honors students, and these sections are taught by specially selected honors faculty. Qualified students may take lowerdivision honors courses simply because they prefer them over regular classes, and they may take as few or as many as
they wish. If students choose to qualify for an Honors Certificate, however, they must meet the following requirements: (1) complete a minimum of 12 semester hours in lower-division honors classes, of which no more than 3 hours may be earned by contracting for honors; (2) maintain a QPA of 3.25 overall and make at least a B in the honors courses offered to fulfill the 12 -hour requirement for honors certification; (3) complete successfully the University Honors Program course entitled The Honors Forum, for one hour of credit. Students who receive an Honors Certificate are automatically qualified to enter an upper-division honors track (departmental, college or university). Students who do not seek a certificate may qualify for an upper-division honors track by taking at least 6 lower-division honors hours with a minimum grade of $B$ and, for most advanced programs, a minimum QPA of 3.25 .
Upper Division: After the basic courses in honors have been completed, honors participants must opt for honors at the department, college or university level. Regardless of the individual's choice to pursue department or college honors (and regardless also of the availability of such programs in his chosen field), he may continue toward graduation with University honors. This plan consists at the upper division of four honors courses in which students from across the University may participate. Topics are interdisciplinary in nature and vary from semester to semester. An honors thesis or project may be substituted for one of these courses. Descriptions of college and departmental programs are available in the appropriate college or department, or in the office of the University Honors Program.

## Requirements and Standards

During the freshman and sophomore years the honors participant must maintain an overall QPA of at least 3.0 to remain in good standing in the program; the minimum QPA for continuing at the junior and senior levels is 3.25 . There is provision for a one-semester probationary period before a participant is discontinued. A minimum grade of $B$ is required in each honors course in order for it to count toward fulfilling the honors course requirement, but regular credit for the course will be earned if the grade is lower than a B.

## MILITARY SCIENCE

> MAJOR DAVID C. DE GRANGE, Professor of Military Science,
> Room $110,8 u\left({ }^{\prime}\right.$,

The Department of Military Science provides a four year program of instruction designed to provide qualified college men and women with practical experience in the art of organizing, motivating and
leading others. The program is divided into two courses each of two years duration. The first, called the Basic Course, offers instruction in leadership skills, soldiering skills, and the role and use of armed forces. The second, called the Advanced Course, builds on the Basic Course, offers practical leadership experience, and prepares the student for commissioning as an Army officer. Students may apply for the four-year program, which can be completed in three years with department permission, or may apply for a two-year program.

Department faculty and staff are active duty Army personnel detailed by Department of the Army and approved by the University President. The Army officers are appointed by the University as Professor or Assistant Professor of Military Science.

## THE BASIC COURSE

The Basic Course, two years in duration, consists of two semesters of one hour per week of classroom instruction and two semesters of two hours per week of classroom instruction. Courses to be taken are comprised of two required courses, Army 1110 and 2110, and two elective courses of student's choice. The sequence in which these courses are to be taken is not structured. All textbooks are furnished, without charge, by the department.

All offered courses count as elective credit toward the total university required hours for a degree. Physical Education credit is granted for the two required courses.

The Basic Course is designed to be entered into as an incoming Freshman. All other students are still eligible to enter and may compress the Basic Course requirements into no less than one year, with department permission. There is NO MILITARY OBLIGATION for enrolling in the Basic Course, and students are not required to wear uniforms or attend leadership laboratory.

Students who successfully complete the Basic Course may apply for entry into the Advanced Course.

## THE ADVANCED COURSE

The Advanced Course prepares qualified, selected male and female students for commissioning as an Army officer while they continue to pursue academic degrees. Upon graduation, students may then serve in the Regular Army, Army Reserve, or Army National Guard in a variety of career fields.

To be eligible for the Advanced Course, the student must have completed the Basic Course or equivalent, (see 2 -year program), be enrolled with the University in a full-time status, have at least two years remaining at the University (undergraduate or graduate), and be a U.S citizen. Final selection is based on demonstrated academic performance, leadership potential, a qualifying score on the Officer Selection Battery of Tests, and physical qualifications.

The Advanced Course is two years in duration. During each of four semesters, the student attends three hours per week of classroom instruction and two hours per week of leadership laboratory. It is comprised of Army 3110, 3120, 4110, and 4120 , in sequence. All students receive a monthly subsistence allowance of $\$ 100.00$, tax-free, while enrolled in classes. All textbooks, uniforms, and equipment are furnished, without charge, by the department.

Students are given the opportunity to develop their leadership skills through the leadership laboratory, field training, and the Advanced Camp. The leadership laboratory is designed around a cadet structure which parallels a U.S. Army unit. Field training exercises are conducted over a weekend and are an extension of the laboratory. Students are also required to attend a six week Advanced Camp during the summer between their two years in the Advanced Course. It is held at Fort Riley, Kansas, a U.S. Army post. Students are paid for the six weeks at the rate of one-half the pay of a Second Lieutenant and are furnished quarters and rations as well as transportation to and from, or a mileage allowance for use of their own automobile.

All required courses count as elective credit toward the total university required hours for a degree.

## THE TWO-YEAR PROGRAM

The Two-Year Program provides the opportunity to those students who did not enroll in the Four-Year Program to enroll in the Advanced Course. There are three methods for students to receive placement credit for the Basic Course and enter directly into the Advanced Course.
Students, who meet qualifying criteria, may receive credit for the Basic Course by attending the six-week Basic Camp at Fort Knox, Kentucky, during the summer. NO MILITARY OBLIGATION is incurred by the student by attending the Basic Camp. Students are paid for the six weeks at the rate of one-half the pay of a Second Lieutenant and are furnished quarters and rations as well as transportation to and from, or a mileage allowance for use of their own automobile. Successful completion of the Basic Camp will make the student eligible to enter the Advanced Course. Interested students should contact the Department of Military Science anytime during the academic year preceding the summer they desire to attend the camp.
Students who have completed Army Basic Combat Training and Advanced Individual Training or have completed a minimum of three years of Army Junior ROTC in high school may be granted credit for the Basic Course by the Professor of Military Science and would then be eligible for entry into the Advanced Course, provided all other requirements are met. These students, as well as Basic Camp graduates, selected for enrollment
in the Advanced Course are enrolled with the same status as cadets in the FourYear Program.

## SCHOLARSHIP PROGRAM

Scholarships which pay full tuition, maintenance fee and other fees, a book allowance, and a tax-free subsistence allowance of $\$ 100.00$ per month are available to University Freshmen and Sophomores who are competitive academically and will enroll in the Army ROTC program. Applications are taken from December to February each academic year. Details concerning qualifications can be obtained from the Department of Military Science.

## SIMULTANEOUS MEMBERSHIP PROGRAM

The Simultaneous Membership Program is a voluntary program under which qualified cadets in the Advanced Course may concurrently join an Army Reserve or Army National Guard unit. The program is designed to provide the cadet with additional opportunities for leadership development and, at the same time, provide him or her with practical unit experience as a Second Lieutenant. The cadet serves in an officer-trainee capacity and participates in regular unit drills held one weekend per month and two weeks per summer. The cadet is paid for all drill at the rate of a sergeant. This pay is in addition to the regular monthly subsistence for Army ROTC cadets. Details concerning qualifications and information on availability of allocations can be obtained from the Department of Military Science.

## PROFESSIONAL MILITARY EDUCATION

Professional Military Education is a component of the academic preparation for students desiring to pursue a commission as an Army officer. It consists of two essential parts, a baccalaureate degree and completion of universitytaught, undergraduate courses from each of five designated fields of study. The fields of study are written communications, human behavior, military history, management, and national security studies. This is a requirement for students enrolled in the Advanced Course only, though applicable courses taken during enrollment in the Basic Course or prior to enrollment may still meet the requirement. Related required and elective courses taken for university degree requirements may also satisfy the requirement. Some of the Professional Military Education required courses may be waived by the Professor of Military Science if they would interfere with a student's required curriculum for award of a particular University degree.

## SPONSORED ACTIVITIES

The Department of Military Science sponsors the following voluntary extra-
curricular activities to provide students in both the Basic Course and Advanced Course with additional opportunities to develop leadership in conjunction with extending the students' knowledge of military skills:

1. The Army ROTC Rifle TeamMembers develop skill in target rifle marksmanship. Selected members represent Memphis State University Army ROTC in small bore rifle competition with ROTC teams of other colleges and universities. The team is open to individuals enrolled in any Military Science course.
2. The Army ROTC Tiger Drill TeamMembers develop skill in standard and exhibition drill and military ceremonies. The team provides color guards at Memphis State University athletic events and drills competitively against ROTC teams of other colleges and universities. The team is open to individuals enrolled in any Military Science course.
3. M.S.U. Ranger Platoon - Members develop skills associated with patrolling, mountaineering, survival training, and other similar activities. The Ranger Platoon is an adventure-type unit under the direction of Army ROTC Advanced Course cadets. Membership is open to all interested full-time students.

## NAVAL SCIENCE <br> CAPTAIN FRANCIS M. DREESSEN, Professor of Naval Science <br> Room 1014. Art Annex

The Department of Naval Science provides a four-year program of instruction leading to a commission as an officer in the regular U.S. Navy or Marine Corps as well as Naval Reserve or Marine Corps Reserve. The program is also known as the Naval Reserve Officer Training Corps (NROTC) and is voluntary in that students may withdraw from the program at any time during the freshman year. At the start of the sophomore year, scholarship NROTC students enter into an agreement with the Department of the Navy that specifies active duty service after college work is completed.

## REQUIREMENTS

The general requirements for enrollment in the NROTC College Program are:

1. ba a citizen of the United Stetes
2. be physically qualified
3. poesess parsonal characterisucs and potantiel relavant for nevel officer
4. not be a conscientious objector
5. maet other requirements es epecified by tha U.S. Navy.

## THE FOUR YEAR PROGRAM

The four year program is geared to students who enter the NROTC program as freshmen. Students will be introduced to the field of naval science which encompasses a broad variety of subjects ranging from basic seamanship to fleet operations. Topics covered during the first half of the four year program include principles of
naval ships systems, naval weaponry, seapower, and maritime affairs. The second half (junior and senior years) is devoted to navigation and naval operations, naval leadership and management. In addition to specified courses, students will also meet with their NROTC unit for orientation experiences to service life. Six week summer training cruises are also part of the naval science program.

## THE TWO YEAR PROGRAM

The two-year program is for interested students who want to participate in NROTC in their junior and senior years. Students should apply for enrollment
through the Professor of Naval Science before the spring semester of the sophomore year (initial application in spring, 1985). If accepted into the two-year program, students will attend the six-week Naval Science Institute at Newport, Rhode Island, during the summer between the sophomore and junior years. Upon return to campus, students will be enrolled in the NROTC program and participate as regular students.

## FINANCIAL BENEFITS AND NROTC SCHOLARSHIPS

All NROTC students receive required uniforms and naval science textbooks
when they begin the program as freshmen. In their junior year as college program or two year program students, they will also receive a tax-free subsistence allowance of $\$ 100$ a month. Four year scholarship students will also receive tuition, cost of textbooks, instructional fees and $\$ 100$ a month. Students will receive pay while participating in summer training experiences and be reimbursed for associated travel. Students interested in the Navy ROTC programs should contact the Professor of Naval Science.


## 8. DESCRIPTION OF COURSES

The section which follows contains a listing of all departments in the University by the college in which they are located and a description of all course offerings. The official course title appears in boldface type following the course number. The figures in parentheses after the description of a course denote the number of semester hours of credit for that course. If the credit is variable, to be fixed in consultation with the instructor, that fact is indicated by the minimum and maximum credit, as BIOL 4000 (2-4). If another course number in parenthesis follows the credit hours, it is the former number for the same course. Credit may not be received for both the former number and
the current number of the same course. At the end of many course descriptions, prerequisites and/or corequisites are listed. Students are responsible for meeting the stated prerequisites prior to enrolling for the course.

Courses are numbered according to the following system:
1000-1999 Courses primarily for freshmen 2000-2999 Courses primarily for sophomores 3000-3999 Courses primarily for juniors 4000-4999 Courses primarily for seniors and for which graduate credit is not offered. (There is sometimes a corresponding 6000 number for which graduate credit is offered to graduate students.)
1000-2000 level courses are lower division courses, 3000-4000 level courses
are upper division courses. Course numbers have no reference to the semester in which the courses are taught.

The Schedule of Classes is published a few weeks prior to the opening of each semester and The Summer Session. It contains a listing of the specific courses to be offered, with the time, place, and instructor in charge of each section. It also contains special announcements concerning registration procedures and courses which may have been added since the publication of the Catalog. Copies are available in the office of the Associate Dean of Admissions and Records.

# THE COLLEGE OF ARTS AND SCIENCES 

## ANTHROPOLOGY <br> PROFESSOR <br> THOMAS W. COLLINS, Chairman <br> Room 122, Clement Humenities Building

## E010 ANTHROPOLOGY (ANTH)

1100. Men's Placa in Neture. (3), Man's plece in natura, human origins, fossil record from archaeological excavations, boological aspects of race.
1101. Man and Culture. (3). Origin and development of human culture Social ralations, languaga, govarnment. human culture. Social ralations, languaga, govarnment.
religion and ritual, end problems of developing nations or religion and ritual, end problems
minority groupa in modern world.
1102. Introduction to Archseology. (3), Dascription of archasological evidence for development of human culture Irom its aerliest beginnings to rise of civilizations. introduction to principlas and mathods of archaaology.
1103. Urben Anthropology of Contemporsry Americe. (3). Anthropological interpratetion of diverse and chenging life petterns in Americen urban society. Attantion to cross-cultural analysis of divergent settlemant patterns, kinship networks end political, raligious end economic systems.
1104. Indisns of Tannassoe snd Adjacent Arass. (3). Archaeology and athnology of Southeast: intansive atudy o various Indian cultures of Tannessee end bordering states.
1105. Humsen Psleontology. (3). Hominid fossil record starting with primate developments; human evolution; humen osteology
1106. Psoplas and Culturas of the World. (3). (Same as GEOG 3200). Major eithographic areas and selectad culturas of the world
1107. Quslitstive Methods of Field Rasearch, (3), Various qualitativa mathods of anthropological resaarch. Application in collecting lifa historias and writing athnographic descrip tions of contamporery societies.
1108. Ethnology of North Amarica. (3). Dascription end distribution of aboriginal culture iypes of North Amarice north ol Mexico; comparisons end interreletionships during preand post-contect periods.
1109. Ethnology of Latin Amsrica. (3). Dascription and diatribution of peoplas and culturas of South America and Masoamerica. comparisons and intarrelationships during praand posi-contact periods.
1110. Eihnology of Africa. (3). Description and diatribution of peoples and cultures of Africs: comperisons and intar ralationships during preand post-contact pariods.
1111. Ethnology of Ocasnis. (3). Description of peoples and culturas of Ocaanıa (including Australia); comparisons and intar-ealetionahipa during preand post-contact periods.
1112. Archssologicsi Fiald Techniques I. (1-3). Experience in field axcavations; preparetion of specimens, use of aurvay instrumants, photographing and kaaping archeeological records, map making of small ground areas. Hours individually arranged. May be repaated for a maximum of 3 hours cradit. PREREQUISITE permission of inatructor.
1113. Archasologicsl Flald Techniquss II. (1-3), May be rapeatad for a maximum of 3 hours credit. PREREQUISITE: permission of instructor.
1114. Archsaology of North Amarics. (3). Description and 3331. Archsaology of North Amarics. (3). Descriplion and
distribution of prahistoric cultural remeins in North America north of Mexico. Major regional sequencas, extanding from north orliast evidences of human occupation until historic the ea
1115. Archasology of Latin Amarica. (3). Dascription and diatribution of prahiatoric cultural ramains in South Amarica and Masoamerica. with amphasia on Mexico and Paru
1116. Archaaology of Africs. (3). Dascription and distribution of archaeological ramains in Africa; major regional asquencas, extending from earliast evidences of humen occupation until historic limes Emphasia on cultural achiavamants of precoloniel Africa.
1117. Archsaology of Europa. (3). Davalopment of the various Europaan civilizations and their influenca and inter. ralationships with other cultures through Europe end Eurasio. 3352. Archasology of Asis. (3). Description and distribution of prohistoric cultural remains in Asia. major regional sequences, from earliest avidances of humen occupation until historic timas
1118. Socisi snd Ethnic Minoritiss. (3). (Same as $\mathbf{S O C l}$ 3422). Social and athnic minorities in United States and elsewhere: focus on differences in cultursl backgrounds. social relationships with larger society; socisl, sducstional, and legsl problems, lectors contributing to satisfactory and unsetisfactory adjustments of minorities
1119. Linguistic Anthropology. (3). Neturs and usefulness of symbols. mechanisms by which they are communicated elstion of symbolic systems to thought and culturs, com parativa techniques used to reconstruct prehistoric langusges
1120. Cultursi Devalopmant snd the Growth of Tachnology. (3). Anthropological survey of development of technology and its ampact on organizetion of industry and work from prehistoric
issuas as public control of technology, labor merkat seg. mentation, and quality of working life, in context of comparativa analysis of both pre-industrial and industrial societies. 4051.6051 . Anthropology and Educstion. (3). (Seme ss EDFD 4051). Advanced study of cultural transmission procass with omphasis on identifying diffaring behavioral, cognitiva and laarning stylas of various ethnic groups within Amarican society and salected third world countrias. Encounters of U.S subcultural groups with public educetion systam. PREREQUI-
SITE: permission of instructor.
4054-6064. The Rise of Anthropologicsl Thought. (3). (3065). Riae of anthropology as a science. Emphasis on enthropological thinking and thaories of 19th and early 20 th century.
4085-6065. Contemporary Anthropological Theory. (3). Contemporary growth of theories and methods in anthropology. 4111.5111 . Humsn Adeptations. (3). Human populations and thair variability: axamination of human adeptations in locomotion and manipuletion, fecial structura, brain and languaga, end raproduction, comparis
ology, and behavior of other primatas.
4252-6252. Economic Anthropology. (3). Comperativa analysis of economic septams and their functional raletionships to other cultural institutions; production, distribution, and consumption; concepts of weelth, value, property, and ownership.
4253-6253. Anthropology of Religion. (3). Comparativa analys is of raligious systams and thair functionel ralationships to other cultural institutions; inter-relations of myth, magic, and ritual; typas of raligious institutiona and eeligious practitionars
4254-5254. Cultural Change. (3). Internal and axternal fectors causing change; role of verious chenge egents; cultural chenges asaociated with urbanization, industrialization end modernization; theorias of cultural evolution.
4311-6311. Archaeological Thaory end Method. (3). History of archaeology and development of concaptual framawork for archaeologicel data collaction and interpratetion; current thaories end mathods including the use of allied specialists.
4321-6321. Archeoological Field Control. (3). Mathods of dealing with archeeological field problems; individual instruction in collection, recording, and field analysis of both historic

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4325-6325. Archaeological Fiald Techniques and Restorstion. (3). Individual instruction in dealing with archaaologicel fiald problems and methods of modarn conservation and rasioration iechniques. PREREQUISITE: parmission of the instructor.
4351-6351. Evolution of Civilization. (3). Comperative invastigation of origins of civilizetion in Old and Naw Worlds. Davalopment and study of modals to explain cultural, social, political, end other changes that lead to and dafina civilizetion. 4354-6354. Archeeology of the Holy Land. (3). Survay of archeeological ramains in Holy Land from Stone Aga to aarly Christian Era
4370-5370. Historic Archseology. (3). Raview of contributions of archaeologista to historical research. Methods and tachniques of archeaologists as requirad end modified by excavation and interpratation of historic matarials. Allied spacialities unıque to Hiatoric Archasology including docu-
mentary invastigations and conservation and restoretion of existing structuras.
4380-6380. Musaology. (3). (Same as ART 4380), History and davalopment of musoums; mandete and variaty of inst1tutions; significant raseerch fecilities; historical and contemporary collections, and the educational rolas of museums in contemporary society.
4381. Archseological Ls borstory and Rasaarch Tachniques. (1-3). Coverage of basic archaaologicallaboratory and rasearch techniques, including processing, cataloguing, storaga of specimans, and analyais of small body of archaeological data on individual basis. May be repasted for credit whan topic
varias. No mora than 6 hours credit may be countad toward varias. No mora than 6 hours credit may be countad toward
major requiramants in anthropology. PREREQUISITE: permajor requiramants in anthropology. PREREQUISIT
mission of instructor.
001 GENERAL ARCHAEOLOGICAL LABORATORY
002 HUMAN OSTEOLOGY
003 CONSERVATION AND RESTORATION
4382-5382. Mussum Oparetion. (3). (Samese ART 4382). Basic aspecta of musaum organization, managamant, exhibit plenning and axacution, and meintenance of collections and records
4411-5411. Urbsn Anthropology. (3). Anthropological studies of pre-indusiriel and industrial cities. Urbanizstion, movements of social transformation and other processes of adjustment to urban milieu. Urban slums, ethnic enclaves and housing developments in croas-cultural perspective. Urban
kınship and social organization. Urben community development. Urban reseerch iechniques.
4420-5420. Amarican Folklora. (3). Selected genres of American folklore, including folk religion and belief, folk medicine, folksong and music, narrative and humor (jokes and riddlest. Comparisons to other cultures Emphesis on role of folklore in maintenance of tradition, in soclel change. ond in concept of culture
4511.5511 . Madical Anthropology. (3). Cross-cultural enalysis of bio-behsviorel components of infectious, nutrio tionsl, ganetic, chronic and psychiatric diseases. Individuel and cultursl reections to medical care, profassionals and

4521-6521, Folk Medicine in the U.S. (3). Medical altar nativas to standard health care system. Concapts of illness associated with such practices as use of medicinal planis, faith healing. chiropractic. Clinical effectivanass of folk herbal caring for persons with diffarent parceptions of health and disease emphesizad.
4541-6541. Nutritional Anthrupology. (3). Human nurrition in cross cultural perspective. Basic nutritional requiremants. Interreletions of dietary behavior with resource availability values for foods. Diatary aspects of acculturation and culture values for foods. Diatary aspects of acculturation and culture change. Methodology in essassment of nutritional
$4751-5751$. Cultura and Parsonslity. (3). Comparison of factors involvad in analysis of parsonality as contrasted to culture; interaction of these factors; problems of studying personelity cross culturally.
4752-6752. Applied Anthropology. (3). Application of enthropological knowledge and techniquas to contemporary problams in governmant, industry, public health, community development, and urbenization.
4975. Diracted Individual Ras dings. (1-4). Intensive guidad survay of anthropological and releted litereturs dealing with topics selected by edvencad studants and accepted by staff. Compilation, synthasis, and evaluetion of published data; profession. PREREQUISITE: permission of chairman and dasig. profession.
nated staff.
4985. Directed Individual Resaarch. (1-3), Intensive guidad study of originel data. in araas salactad by advanced studants end accapted by staff. Collection end/or processing of data in physical anthropology, athnology, appliad and urban anthro pology, archeeology, and linquistics; description, classification analysis, and synthesis. Preperetion for publicetion. PRE REQUISITE: parmission of chairman and dasignatad staff.
4990. Special Topics in Anthropology. (3). Salected topics of current interest in eraas of enthropology not otherwise included in tha curriculum. May ba repeatad for credit when
OO1 NEIGHBORHOOD STUDIES IN MEMPHIS
002 EXPERIMENTAL ARCHAEOLOGY
003 INDUSTRIAL ANTHROPOLOGY
4995. Independent Study in Anthropology. (3). Invastigation of contemporary issues in anthropology: axperiance with applicetion of anthropological principlas in salectad settings, e.g., in Graatar Memphis area; may be offered in sections deeling with different topics.

## BIOLOGY

PROFESSOR JAMES F. PAYNE, Chairman
2018, Lite Scienca Building

## ADVANCED PLACEMENT

Beginning frashman who heve complated an advanced biology coursa in high school msyspply to the chairman of the Depertment of Biology, during the samaster praceding enrollmant, for advenced plscement.

## E060 BIOLOGY (BIOL)

1001. Introduction 10 Biology. (3) Survay of biology: amphasis on animel kingdom; for non-sciance mejors. Credit not eccepteble for biology mejor or in pre-prol assionel
curricule. Credit not allowad for both BIOL 1001 and 1112 I wo lecture, iwo leborerory hours per week
1002. Introduction to Biology. (3). Continuation of BIOL 1001, with amphasia on plent kıngdom. Credit nof eccepteble lor biologr mejor of in pre-prolessional curricule. Credit not ellowed for both BIOL 1002 end Ill2. Two lecture, iwo laboratory hours per week.
1003. Introduction to Toxicology. (2). Survay of field of toxicology; intardisciplinary aapacta.
1004. Genarsi Blology I. (4). Unifying principles of biology with emphasis on cell structure, cell function, haredity, development an
1112 . Ganeral Biology II. (4). Continuation of BIOL 1111 with emphesis on origin and diversity of life; structure, function, and ecology of organisms. Three lecture. fwolebors tory hours per week.
1005. Microbiology. (4). Microorganisms and their basic cheracteristics with emphaais on reletionship to pathogenesis cheracteristics withemphaais on reletionship topathogenesis per week
1006. Human Anatomy and Physiology. (3). Structure and function of human or ganism, primarily for majors in Depart ment of Health, Physicel Educetion, and Recreation. Two lecture, iwo leboretory hours per week
1007. Humen Anatomy and Physiology. (3). Continustion o BIOL 1831, primarily for majors in Department of Health Physicel Educetion, and Recreation Two lecture, iwo lobora fory hours per week. PREREQUISITE: BIOL 1831 or equivalent 1731. Anetomy and Physlology. (4). Detailed study of
structure and functions of human orgenism. Three lecture,
iwo leboretory hours per week. two leboretory hours per week.
1008. Anatomy and Physiology, (4), Continuation of BIQL 1731. Three lecture, two laboratory
REQUISITE: BIQL 1731 or equivalent.
1009. Elements of Biology. (3). Basic concepts of animal and plent life. (For students in College of Education seeking certification in elementery educetion; will not satisfy scienca
requirements for degrees in other colleges of University.) Two requirements for degraes in other colleg
lecture, two laboratory hours per week.
1010. Natural History end Bio-Conservetion. (3). Emphasis on plants and animels in their environment, use of field work in teaching elementery science, and study of ecological principles related to bio-conservation. (For students in College of Education seeking certification in elementary education; will not satisfy science requirements for degraes in other colleges of University.) Two lacture, two laboratory hours per week. of University.) Two lacture.
1011. Generel Horticulture. (3). Major aspects of horticulture with emphasis on growing ornamental plants, propagetion dise日se control, nutrition, pruning, soils and greenhouse
manegement. Two /ecture, two /aboratory hours per week. manegement. Two lecture, two laboratory hours per week.
PREREQUISITE: BIOL 1112 or equivalent or permission of instructor.
1012. Human Redietion Biology. (3). Biologicel effects of various types of radietion on humen body and consideretions involved in exposure control. (Limited to students enrol/ed in reactor technician program in Center for Nuclear Studies).
1013. Principles of Animal Physiology. (4). Basic concepts of enimal function, including study of many invertebrete phyla and most classes of vertebrate organisms. Two lecture, four
laboratory hours per week. PREREQUISITE: B hours of animal laboratory hours per week. PREREQUISITE: B hours of
biology or equivalent and CQREQUISITE: CHEM 3311.
1014. General Ecology. (4). Plant and animal communities in relation to their environment. Two lecture, four laboratory ours per week.
1015. Genetics. (4). Principles of heredity, including laboralory experiments in Drosop
1016. Human Genetics. (3). Genetic principles as they apply to men, including pedigree analysis, genetic counseling, genetic engineering, end eugenics. Three lecture hours per
week. PREREQUISITES: BIQL 1112 or per mission of the instructor.
1017. History of Biology. (3). Development of science of biology, considering work of outstanding biologists and influence of the ir contributions. PREREQUISITE: 16 semester hours in biology or per mission of instructor.
1018. Heredity. (3). Principles of heredity with applications to humen problems, for non-science majors and recommended humen problems, for non-science majors and recommended
for students who desire a better understanding of heredity and for students who desire a better understanding of heredity and
eugenics. Not ecceptable es credit toward biofogy major or eugen
minor.
1019. Generel Plant Anetomy. (4). Comparative development and structure of roots, stems, and leaves in flowering plants Two lecture, four leboratory hours per week.
1020. Morphology of Lower Plants. (4). Comparative studies of possible fossile ancestors and theories of origin of the angiosperms of lower plants through bryophytes. Two /ecture, four laboratory hours per week.
1021. Morphology of Vescular Plents. (4). Comparative study of the life cycles, development, structure, reproduction and phylogeny of vascular plants from most primitive to most 3240. Field Boteny. (4). Introduction to collection, ident 3240. Field Boteny. (4). Introduction to collection, identifica-
tion, and classification of woody and herbaceous plants in tion, and classification of woody and herbaceous plants in
Memphis area; emphasis on field experience. Two lecture, four laboratory hours per week.
1022. The Reletion of Microorganisms to Man, (3), Nature and activities of microorganisms, both har mful and beneficial, as they affect welfare of man. Topics include: etiology and transmission of diseases, immunity, microbiology of water, foods, and soil. non-science majors. Credit not allowed for
both 3400 and 3500 . Not acceptable as credit toward biology major or minor
1023. Pathophysiology. (3). Effects of pathogenic organism upon human body and abnormalities in physiological processes occurring during disease. (Primarily for nursing students.)
1024. Generel Microbiology. (5). Fundamentals of bacteriology. Three lecture, four laboratory hours per week.
1025. Applied Microbiology. (4). Introduction to microbiology of water, soil, air, food sewage, industrial processes, end pathogens. Two lecture, four leboretory hours per week.
PREREQUISITE: BIQL 3500 or equivalent. 3610, Vertebrete Embryology. (4). Development of selected vertebrate embryos from fertilized egg cell. Two lecture, four leboret ory hours per week.
1026. Comparative Anatomy of Vertebrates. (5). Origin, development, structure, and functions of organs and systems
of selected forms of vertebrates. Two lecture, six /aboretory hours per weak. PREREQUISITE: BIOL 1112 or permission of instructor.
1027. Vertebrate Zoology. (4). Life histories, adaptations, ecology, distribution, behavior, and classification of vertebrates. I wo lecture, four feboretory hours per week
1028. Human Physiology. (4). Normal functions of human 3B00. Perasitology. (4). Distribution, morphology, life history, economic importance, and control of some of parasites of men end domestic animals. Protozoa through helminths. Two lecture, four leboretory hours per week.
1029. Invertebrate Zoology. (4). (4B40). Major invertebrete phyla with emphesis on systematics, phylogeny, embryology,
and ecology of selected types. Two lecture, four leboretory and ecology of selected types. Two lecture, four leboretory
hours per week. 3900. General Entomology. (4). Introduction to insects with emphasison morphology, physiology, develop ment, behavior, 3940 . Systematic Entomology. (4). Clessification of insects, interpretation and use of keys, and preparation of e repre-
sentetive collection. Extended field trips to be arranged. Two
ecture.
1030. Medical Entomology, (4). Distribution, morphology, life history, medical importance, and control of insects end other erthr opods which serve as vectors for disease-producing organisms. Two lecture, four laboratory hours per week
3955, Pest Control. (4). Recognition, life history, habits, and control of insect pests attecking stored grein, wood, fabrics, food products and animals. Includes some non-insect pests, such as noxious birds, rodents, and snekes. Two lecture, four laboratory hours per week. PREREQUISITE: permission of instructor.
1031. Resaerch. (1-4). Consultation, reading, end laboratory or field work to investigate selected er ea of biology under se repeated for meximum credit of 4 hours. (S, U).
4002-6002, Toxicology. (3). Effects of foreign substances on biologicel mechanisms. Absorption, excretion, metabolism, end biotrensformation of potentielly hermful substances. PREREQUISITE OR CQREQUISITE: CHEM 3312.
4003-6003. Experimental Toxicology. (4). Advanced espects of toxicology; instrumentetion, orgenism culturing, and procedures involved in the essess ment of reletive toxicity. Fwo 4002. CQREQUISITE: CHEM 4511 or consent of instructor. 4030-5030. Celluler Fine Structure, (3). Ultrastructure of cells. How cells use structuras to perform tesks. Survey of cells and tissues in plant end animal kingdom. Liberal use made of micrographs during lecture. Three lacture hours per week.
PREREQUISITE: BIOL. 1111 or consent of instructor. PREREQUISITE: BIQL 1111 or consent of instructor.
4050-6060. Field Technique in Ecology. (4). Field techniques of applied ecology covering practical training in forest, field, aquetic, and atmospheric sampling and analysis. Ex PREREQUISITE: consent of instructor.
4060-6060. Limnology. (4). Physical and chemicel attributes of lakes, ponds, and streams; orgenisms of fresh weter; problems of production; practical training in limnological methods and identification of organisms. laboratory hours per
40B0-6080. Radiation Biology, (4). Qrigin and characteristics of ionizing radiations with detailed discussion of radiation effects upon life processes from molecular to ecosystem level. Three lecture, iwolaboratory hours per week. PREREQUISITES
CHEM 3311 or $3312 ;$ BIQL 3070 . CHEM 3311 or 3312 ; BIQL 3070.
4100-6100. Organic Development, (3). Theoreticel and scientific evidences concerning origin, development, and establishment of major groups of living end extinct animal end plants. Racommended for biology majors and
students as welI. PREREQUISITE: one year of biology.
4101, Biological Instrumentetion and Methods. (2). Prin ciples and applications of routine instruments and methods employed in biological experimentation. Such concepts end practices as weights and measures, pH, UV/visible spectrophotometry, chromatography, centrifugation, isotope counting, and electrophoresis. Emphasis on laborat
4130-6130. Cell and Molecular Biology, (4) Introduction to principles of molecular biology; of ultrastructure, intracellular metabolism, gene structure end function, and cell differentiation. Two lecture, four laboratory hours per week. PREREQ 3312
4160-6160. Histological Techniques. (4), Methods of preparing tissue for examination et the light end electron microscopic level. One lecture, six leboratory hours per
4226-6226. Mycology. (4). Basic life cycles, morphology end clessification of fungi. Interaction of fungal orgenisms in environment. Two lacture, four laboratory hours per weak.
PREREQUISITE: BIQL 1111 or equivalent or consent of PREREQUIS
instructor.
4231-6231. Plant Physiology. (4). Principles of physiology and their application to lower plant groups, exclusive of becteria and related forms. Two lacture, four laboretory hours per week. PREREQUISITE: BIQL 1111 or its equivalent.
4232-6232. Plant Physiology. (4). Principles of physiology and applicetion to living organisms; emphasis on higher plants. Three lecture, thrae leboratory hours per week PREREQUISITE: BIQL 1111 or its equivalent.
4240-6240. Plent Taxonomy. (4). Principles of plent texonomy; special attention to classification of selected vascule plent families. Lectures, faboratory hours, and field trips.
PREREQUISITE: BIOL 3240 or permission of instructor. REREQUISITE: BIOL 3240 or permission of instructor
1032. Woody Plants of the Mid-South, (3). Identification
and clessification of trees, shrubs and woody vines of and clessification of trees, shrubs and woody vines of Tennessee and adjacent Arkansas, western Kentucky, southeastern Missouri and northern Mississippi; emphasis on both native and cultivated woody species. Identification primarily of plants in summer condition, but also woody plants in winter. One fecture, two feboretory hours per waek. PREREQUISITES: BIQL 1112 or permission of the instructor.
4250-6250. Forest Ecology. (4). Developmental end structural analysis of forest types. Regional silviculture in United States. Autecology of important species. Field trips. Three
fecture, two leborefory hours per week. PREREQUISITE: BIOL 3050 or permission of instructor.
1033. Advanced Microbiology. (4). Advanced theory and principles of microbiology; emphasis on morphology and week. PREREQUISITES: BIQL 3500 and one year of inorganic week. PREREQUISITES: BIQL 3500 and one
chemistry, with organic chemistry desirable.
4440-6440. Pathogenic Microbiology. (4). Survey primarily of pathogenic bacteria, disaases they cause and methods of diagnosis; introduction to immunological principles and mmunity. Considerable attention to laboratory methods used or identification of pathogenic bacteria. Two lecture, four leboretory hours per week. PREREQUISITE: BIOL 3500, with organic chemistry desireble.

4444-6444. Immunology. (4). In vitro and in vivo reactions of entigens and antibodies, hypersensitivities, blood groups and PREREQUISITES: BIQL 3500 and CHEM 3311
4460-6460. Microbiel Ecology. (3). Roles of microorganisms in the environment. Microbial processes, interactions with the environment and biota, population ecology, community ecology, and biodegradation. Three lecture hours per week.
PREREQUISITE: BIQL 3500 , CHEM 4511 and 4512 , or consent of instructor
4451-6451. Field Techniques in Microbiel Ecology, (3), Intensive field course; philosophy and methods of microbial ecology. Extensive field work on Mississippi River required. One extensive field trip. One lecture, four /aborgtory hours per per mission of instructor.
4460-6460. Sanitery Becteriology. (4). Microorganisms in relation to water end sewege, disinfection and disinfectants. Two lecture, four laboratory hours per week. PREREQUISITE: BIOL 3500 or co
4470-6470. Moleculer Genetics. (4). Structure, functions and replication of DNA, recombination, colinearity of DNA with genetic map, mutagenesis, gene transfer, plasmids, code,
protein synthesis, suppression, regulation of gene expression, protein synthesis, suppression, regulation of gene expression, and genetic engineering. For students without formal training
in molecular genetics. Two lecture, four laboratory hours per in molecular genetics. Two lecture, four laboratory hours per week. PREREQUISITE; BIQL 3500.
4476-6475. Recombinent DNA Techniques. (4). Laboratory with both theory and application of recombinant DNA techni ques. Eight laboratory hours per week. PREREQUISITE: 4501. Virology. (3). Introductory study of viruses and methods of their cultivation, isolation and characterization. Three lecture hours per week. PREREQUISITE: BIQL 3500.
4660-6560. Microbiology of Foods. (4). Microorganisms in natural and processed foods; origins, nature, and effects on foods; enumeration, and relation to health. Iwo lecture, four
leboratory hours per week. PREREQUISITE: BIQL 3500 or consent of instructor
4670. Practicum in Biology. (1-4). Directed extra-departmental studies in special areas of biology. A maximum of four hours credit may be applied toward degree requirements. PREREQUISITES: major in biology and permission of advisor. (S/U)

001 BOTANY
003 INVERTEBRATE ZOOLOGY QR ENTQMOLQGY
004 -VERTEBRATE ZQQLQGY
4604-6504. Ethology. (4). Animal behavior with emphasis on recent developments in the field, including history of ethology, learning, releasers, communication, orientation,
instinct, biological clocks, and evolution of behavior. Two instinct, biological clocks, and evolution of behavior. Two 1112 or its equivalent.
4620-6620. Vertebrete Histology. (4). Microscopic study of normal tissues and organs of vertebrate body. Two lecture, four laboratory hours per week. PREREQUISITE: BIQL 3610 or 3620 or permission of instructor
4630-6530. Generel Endocrinology. (3). Anatomy and physiology of the organs of internal secretion; role of hormones 4640-6540. Qrnithology. (4). Biology of birds, with emphasis on avian anatomy, physiology, behavior, and reproductive
biology. Field trips emphasize identification of local species and techniques of field study. Two/ecture, four fie/d/laboratory hours per week. Prerequisite: BIOL 1112
4644-6544. Ichthyology, (4). Collection, preservation, , importance of fishes. Wi lecture,
4551-5661. Field Techniques of Vertebrete Zoology. (4-6). Techniques in field study of vertebrates. Extended field studies outside local area.
4720-6720. Vertebrate Neurology. (4). Nervous system of selected vertebrates. Three lecture, two laboratory hours per
week. PREREQUISITE: BIQL. 1112 or permission of instructor. 4740-6740. Mammalogy. (4). Classification, distribution, life histories, economic importence, techniques of field study, methods of collection end preservation of mammals. Two
lecture, four leboratory hours per week. PREREQUISITE: BIQL lecture
3700.
4744-6744. Herpetology. (4). Classification, distribution, life histories, techniques of collection and preservation, natural habitats of North American reptiles and amphibians. Two 3620 or 3700 or permission of instructor.
4760. Wildife Ecology.(4). Distribution, identification, population analysis, game mapping echniques, and managemen of widlife.
REQUISITES: BIQL 3050 or 3700 or per mission of instructor 4770.6770. Mammalien Genetics, (4). Principles of heredity of mammals with primary emphasis on mice and humans.
Three /ecture, two laboratory hours per week. PREREQUISITE: Three /ecture, two laborat
BIOL 3070 or equivalent.
4B20-6820. Protozoology. (4). Free living and parasitic protozoa; consideration to structure, function, taxonomy, habitat, and life history. Two lecture, four leboret ory hoursper week
4901-6901, Field Technique in Entomology. (4). Field tech lecture, four /eboretory hours per week. PREREQUISITE: BIQL 1112 or its equivalent and consent of instructor.
4920-5920. Insect Morphology. (4). Form and structure of insects, considering both external and internal morphology.
Two lecture, four laboretory hours per week. PREREOUISITE: Two lecture, four laboretory
B/OL 1112 or its equivelent.
4930-6930. Insect Physiology, (4). Physiology es applied to life processes of insects. Twolecture four /eboret ory hours per
week. PREREQUISITE: BIOL 1111 or equivalent

The following courses ere taught only at the Gulf Coest Research Lab, Qcean Springs. Mississippi. Memphis Stete Research Lab, Qcean Springs, Mississippi. Memphis Stete
University residence credit is given through effiliation with the leboratory.
4010-6010. Aqueculture. (6). Review of technology, principles. and problems relating to the science of aquaculture with emphasis on culture of marine species. PREREQUISITES 16 hours of zoology including invertebrete and vertebrate zoology or ichthyology
4020-6020. Comperetive Histology of Merine Organisms (1-6). Histological organization of representative merine organisms Fixatıon, processing, end study of tissues using light miroscopy. transmission end scanning electron microscopy. Structural changes end physiological changes during life cycle of orgenism including histopathology. PREREQUISITE: consent of instructor.
4051-6051. Merine Ecology. (6). Relationship of marine organisms to environment; includes effects of temperature, selinity. light, nutrient concentration, currents, food, predation and competition on the abundance and distribution of marine general zoology. general botany, and invertebrate zoology 4052-6052. Selt Mersh Plent Ecology. (4). Emphasis on botanical aspects of local marshes; includes plant identiication, composition, structure, distribution and development of coastal marshes. Biological and physical interrelationships. Primary productivity and relation of marshes to estuaries and associated fauna. PREREQUISITES: general botany, plant
taxonomy, plant physiology, and general ecology or consent of inaxonomy.
4200-6200. Merine Boteny. (4). Local examples of principal groups of marine algae and maritime flowering plants, treating structure, reproduction, distribution, identification and ecology PREREQUISITES ten hours of biology, including introductory botany
4300-6300. Coestel Vegetetion. (3). General and specific aspects of coastal vegetation; emphasis on local examples. 4500-6500. Merine Microbiology. (5). Role of microorganisms in overall ecology of oceans and estuaries. PREREQUISITES: general microbiol
biology or consent of instructor
biology or consent of instructor.
$\mathbf{4 6 0 0} \mathbf{6 6 0 0}$. Merine Vertebrete Zoology end Ichthyology 6). Marine Chordata, including lower groups and mammals and birds; emphasis on fishes. PREREQUISITES sixteen semester hours of zoology including comparative anatomy or consent of intructor
4610-6610. Eerly Life History of Merine Fishes. (4). Reproductive strategres and developmental processes of
marine fishes. Temporal and spacial distribution patterns, marine fishes. Temporal and spacial distribution patterns, population dynamics, and ecological interactions of fish eggs and larvae. Methods of sampling and identifying eggs and ogy, and/or consent of instructor
4646-6646. Merine Fisheries Menegement. (4). Qverview of practical marine fishery management problems. PREREQUISITE: consent of instructor
4700-6700. Behevior end Neurobiology of Merine Animels. 14). Behavior, neuroanatomy, and neurophysiology of marine animals with emphasis on neural mechanisms underlying PREREQUISITES: 16 hours of zoology and/or psychology or consent of instructor
4800-6800. Merine Invertebrete Zoology. (6). Important free-IIving, marine estuarine invertebrates of the Mississippi Sound and adjacent continental shelf of the northeastern Gulf of Mexico; emphasis on structure, classification, phylogenic PREREQUISITES: 16 hours of zoology including introductory PREREQUISITES: 16
invertebrate zoology.
4844-6844. Pereeitee of Merine Animele. (6). Parasites of marine animals; emphasis on morphology, taxonomy, life histories and host parasite relationships Lecture, laboratory and field work included PREREQUISITES: general parasitology or consent of instructor
$4860-6860$. Feune end Feunistic Ecology of Tidel Mershes. (4). Survey and discussion of taxonomy, distribution, trophic relatıonships, reproductive strategies and adaptation of tidal marshes. PREREQUISITES: 16 hours of biology and junior marshes. Preneating or consent of instructor

## CHEMISTRY

PROFESSOR H. GRADEN KIRKSEY, Chairman Room 210. J. M. Smith Hall

The Department of Chemistry offers courses leading to the B.S degree with a major in either chemistry or physical science. The department also offers a program culminating in the professional degree of Bachelor of Science in Chemistry. This program is designed to meet the requirements of the Committee on Professional Training of the American Chemical Society, and is undertaken primarily by students who desire to
go directly to positions in chemical industry, or to enroll for go directly to positions in chemi
postgraduate study in chemistry

## SEQUENCE OF COURSES

Students who present credit for at least two years of high school mathematics (including algebra), or who have an ACT mathematics score of 22 or better, should enroll in CHEM 1111 if they plan to take more than one year of college
chemistry, or plan to major in either a natural science or in chemistry, or plan to major in either a natural science or in
civil, mechanical, or electrical engineering. CHEM 1100 is a civil, mechanical, or electrical engineering. CHEM 1100 is a
one-semester course for students of limited preparation in
mathematics whose curriculum calls for the CHEM 1111 1112 sequence. CHEM 1051-1052 is a two-semester sequence for students interested in the science of chemistry, but is not credited toward a major in chemistry or physics. It does is not credited toward a major in chemisiry or physics. It does Credit may not be received for both CHEM 1100 and CHEM sequence requiring no previous science experience. These courses emphasize fundamental principles and concepts, and are designed for non-science majors interested in a study of several areas of physical science.

## ADVANCED PLACEMENT

Beginning students who have had previous high school training in chemistry are invited to apply for advanced placement.

## LABORATORY SAFETY AND <br> COURSE REQUIREMENTS

Laboratory safety is strictly practiced in the Department of Chemistry. Approved eye protection must be worn as required n all chemical laboratories. In addition, to ens ure that student enrolled in laboratory courses learn the necessary safety information to safely participate in the laboratory course, all prerequisites and/or corequisites for all laboratory courses are strictly enforced. As a result, when a student enrolls in a laboratory course without prior completion of the necessary prerequisite or corequisite, the student will be dropped from the laboratory course. In addition, when a student simul taneously enrolls in a laboratory course and corequisite course. but subsequently drops or discontinues the corequesite course, the student will be dropped from the laboratory course requirements of the Department of Chemistry. the Department has the right to not allow the student to perform laboratory
work, or to withdraw the student from the laboratory course, work, or to with

## EO70 CHEMISTRY (CHEM)

1000. Chemistry of Life Processes. (4). Chemistry as related eneral and organic chemistry, as well as biochemistry Three lecture, two laboratory hours per week. This course will notbe credited toward a major in chemistry. physics. physical science. or engineering. nor does it satisfy the general education science requiremen
1001. Chemistry for Nurses. (3). Topics from various areas of chemistry which are applicable to nursing profession. Three lecture hours per week. Will not be counted toward University general degree requirement for science nor toward major in
College of Arts end Sciences. May be counted as free elective in all colleges except Engineering.
1002. College Chemistry. (4). Fundamental laws of chemistry and impact of chemistry on modern society Three lecture, two laboratory hours per week. Not credited toward major in chemistry or physics.
1003. College Chemistry. (4). Continuation of CHEM 1051; emphasis on elementary organic and biochemistry. Three lecture, two laboratory hours per week. Not credited toward
1004. Introduction to Chemistry. (3). For students whose 100. Introducticulum Cequires 1111 , but who feel their background is inadequate. Emphasis on scientific calculations and properties of matter. Three lecture hours per week. Not credited toward mejor in chemistry. physics, physical science. or engineering, nor does it satisfy any part of science
requirement for any degree. CQREQUISITE. MATH 1211 or requirement for any
1212 recommended.
1005. Principles of Chemietry. (4). For students who are majoring in one of the physical sciences, biology, mathematics or engineering, or who are following a pre-professional program requiring additional chemistry. Three lecture, three laboratory hours per week. PREREQUISITE: two units of high
school mathematics including algebra, or an ACT score of 22 school mathematics including algebra, or an ACT score of 22
or better on the mathematics section, or CHEM 1100 or better on the mathematics section, o
CQREQUISITE: MATH 1211. 1212, or 1321 .
1006. Principles of Chemietry. (4). Continuation of CHEM 1111. Three lecture, three laboratory hours per week PREREQUISITE: CHEM 1111.
1007. Quentitetive Chemicel Anelysis Leboretory. (2). (3404). Application of the techniques of quantitative analysis in areas described in CHEM 32IUUSITE: CHEM 3211 per
1008. Quentitetive Chemicel Anelyeis. (2). (3400). Theory and practice of modern chemical analysis. Includes: acid-base, redox, and complex ion equilibria, separation methods, absorptiometry, flame sepctroscopy, and electroanalytical methods. Two lecture hours per week. PREREQUISITE CHEM 1112 CQREQUISITE: CHEM 3201 recommended.
1009. Generel Orgenic Chemistry Leboretory. (1). Emphasis on laboratory techniques as applied to synthesis and class reactions. Three eboretory hours per week. PREREQUISIE:
1010. Generel Orgenic Chemistry Leboretory. (1). Continuation of CHEM 3301; emphasis on correlation of chemical behavior with structure. Credit may be obtained either in 3302 or 3303, but not both. Three leboretory hours per week.
PREREQUISITES: CHEM 3311 and 3301. CQREQUISITE QR PREREQUISITES: CHEM 3311 and 3301. CQREQUISITE QR
PREREQUISITE: CHEM 3312 .
1011. Synthesis end Identificetion of Orgenic Compounds. (2). Synthesis, separation, and identification of organic compounds in the laboratory. Six leboretory hours per week. SREREQUSME: CHEM 3312.
3311 . Generel Orgenic Chemistry. (3). Systematic study of preparations and properties of organic compounds, including interpretationsbased on moderntheories of organic chemistry, Emphasis on aliphatic and aromatic hydrocarbons, their
halogen derivatives, and alcohols. Three lecture hours per halogen derivatives, and alcohols. Three lecture hours per
week. PREREQUISITE: CHEM 1112 .
1012. Generel Orgenic Chemistry. (3). Continuation of CHEM 3311; emphasis on more important functional derivatives of aliphatic and aromatic hydrocarbons. PREREQUISITE: CHEM 3311.
1013. Elementery Physicel Chemistry. (3). Abbreviated course in physical chemistry. Includes elementary thermodynamics. phase transitions, solution chemistry, electrochemistry, kinetıcs, colloidal and surface chemistry, and molecular polarity. Credit may be obtained either in this course or in 3411 , but not both. Three lecture hours per week
PREREQUISITES: CHEM 3211 or 3311 , PHYS 2112 or 2512 . 3402. Physicel Chemistry Leboretory. (2). Measurements of physical properties. reaction rates, and equilibria. Application of electrochemistry and calorimetry. Six laboratory hours pel
week. PREREQUISITE: CHEM 3411. CQREREQUISITE QR week. PREREQUISITE: CHEM
PREREQUISITE: CHEM 3412.
1014. Elementery Physicel Chemistry Leboretory. (1). Measurement of physical quantities, including equilibrium constants, heats of reaction, molecular weight, viscosities, and reaction rate constants. Three laboratory hours per week. CQREQUISITE: CHEM 3401.
1015. Phyeicel Chemistry. (3). Ther mochemical foundations of physical chemistry applied to open and closed systems, kinetic theory of gases, and surface chemistry. Three lecture
hours per week. PREREQUISITES PHYS 2112 or 2512 . MATH hours
2321
3412 . Physicel Chemistry. (3). Continuation of CHEM 3411 emphasizing kinetics of chemical reactions, quantum chemistry, chemical bonding, statistical mechanics, spectroscopy, hours per week. PREREQUISITE: CHEM 3411
1016. Instrumentel Methods. (3). Analytical instrumenta echniques including molecular spectroscopy, chromato graphy, atomic spectroscopy. and electrochemical analysis.
One lecture, six laboratory hours per week. PREREQUISITES One lecture, six laboratory hours per week. PREREQU
CHEM 3201, 3211,3311 . or permission of instructor.
1017. Environmentel Chemistry. (3). Chemical phenome occuring in soil, atmospheric and aquatic environments; consideration of natural resources and energy. Three lecture hours per week. PREREQUISITE: CHEM 331
4111 -6111. Inorgenic Chemistry. (3). (4210). Theoretica and applied inorganic chemistry. Stress on relationship of structure and bonding to properties of elements and com pounds. Includes introductory molecular orbital theory, coordi nation compounds and organometallics. ligand field theory, nonaqueous solvent systems, and reaction mechanisms. Three
lecture hours per week. PREREQUISITE: CHEM 3412 or lecture hours per week. PR
1018. Speciel Topics in Inorgenic Chemistry. (1-6). Topics furrent interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester hours credit PREREQUISITE: CHEM 3312 and permission of instructor.
001 BIGINQRGANIC CHEMISTRY
002 QRGANQMETALLIC CHEMISTRY
003 INQRGANIC SYNTHESIS
4220-6220. Advenced Instrumentel Anelysis. (4). Advanceo topics in electrochemical, spectroscopic, and chromatographic methods, and an introduction to electronic and optica. principles of chemical instrumentation. Two lecture,
laboratory hours per week. PREREQUISITE: CHEM 3412 laboratory hours per week. PREREQUISITE: CHEM 3412 4299. Speciel Topics in Anelyticel Chemistry. (1-3). Topics of current interest to undegraduates pursuing 8.5 degree May be repeated for maximum of 6 semester hours credit PREREQUISITE: CHEM 3412 and permission of instructor
001 ATQMIC SPECTRQSCQPY
1019. Speciel Topics in Orgenic Chemistry. (1-3). Topics o current interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester hours credit. PREREQUISITE: CHEM 3312
001 HETERQCYCLIC CHEMISTRY
002 TERPENES AND STERQIDS
003 QRGANQPHQSPHQRUS CHEMISTRY
004 PHYSICAL QRGANIC CHEMISTRY
005 PQLYMER CHEMISTRY
006 QRGANIC SYNT
1020. Speciel Topics in Physicel Chemistry. (1-3). Topics of current interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester hours cred 001 MQLECULAR SPECTRQSCQPY
002 QUANTUM CHEMISTRY
003 CHEMICAL KINETICS
004 CHEMICAL THERMQDYNAMICS
005 ELECTRQN SPIN RESQNANCE SPECTRQSCOPY
006 STATISTICAL MECHANICS
4501-6501. Biochemistry Leboretory. (1). Investigation o physical and chemical properties of compounds of biologica interest by common laboratory techniques. Assay of enzymes and enzyme kInetics stressed Three leboratory hours pe/
week. PREREQUISITES: CHEM 3302 or 3303 and 3312 week. PREREQUISITES: CHEM 3302 or 3303
PREREQUISITE QR CQREQUISITE. CHEM 4511.
4502-6502. Biochemistry Leboretory II. (1). Biochemica laboratory techniques; emphasis on fractionatıng biologica samples and measuring metabolic activity. Th
hours per week. PREREQUISITE: CHEM 4511 .
hours per week. PREREQUISITE: CHEM 4511.
4511-6511. Biochemistry. (3). Chemistry of amino acids an proteins related to their properties in biochemical systems Enzymology, including kinetics and conformation studie Coenzymes and their functions. Chemistry of carbohydrate lipids, and nucleotides. Three lecture hours per week.
PREREQUISITE: CHEM 3312. CQREQUISITE: CHEM 4501 PREREQUISITE
$4512-6512$. Biochemistry. (3). Contınuatıon of CHEM 4511 Metabolism Biochemistry of DNA and RNA, including their relationship biosynthesis of proteins Metabolic control. Three lecturt
hours per week. PREREQUISITE: CHEM 4511. hours per week. PREREQUISITE: CHEM 4511
1021. Speciel Topics in Biochemistry. (1-3). Topics o current interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester
PREREQUISITE: CHEM 4512 .
OO1 ENZYME KINETICS AND MECHANISMS
001 ENZYME KINETICS A
002 DNA REPLICATIQN

003 BIOCHEMISTRY OF DISEASE STATES
OO4 MACROMOLECULAR STRUCTURE AND FUNCTION 4911-6911. Chamical Litaratura and Seminar. (1). Use of chemical literature, writing of technical reporis, and oral
presentation of investigative reports. One lecture hour per presentation of investigative reports. One lectu
week. PREREQUISITE: permission of instructor.
4991. Chamical Reaaarch. (1). \{See dascription under CHEM 4993. )
4992. Chamical Rasearch. (2). (See description under CHEM 4993. )
4993. Chamical Raasarch. (3). Introduction to basic research Student collaborates with staff member on problem of mutua interest selected from fields of analytical, inorganic, organic,
and physical chemistry, and biochemistry. Experience in and physical chemistry, and biochemistry. Experience in
effective laboratory techniques, critical experiment design, effective laboratory techniques, critical experiment design,
and scientific reporting. To receive credit toward a major in and scientific reporting. To receive credit toward a major in
chemistry, student must complete three semester hours in chemistry, student must complete three semester hours in
these research courses. Three to nine laboratory hours per week. PREREQUISITE: CHEM 3312 and permission of instruc-
tor. Students expected to complete prospectus in consultation tor. Students expected to complete prospectus in consultat
with a faculty sponsor before registering for this course.

## PHYSICAL SCIENCE (PSCI)

1031. Physical Sciance. (3). Introductory course; emphasis on fundamental principles and concepts of physical science. Two lecture, two laboratory hours per week.
1032. Physical Sciance. (3). Continuation of PSCl 1031. Two lecture, two laboratory hours per week. PREREQUISITE: PSCI 1031.
1033. Glass Manipulation. (2). Laboratory course in fundamentals of glass manipulation and construction and repair of simple laboratory apparatus. Six laboratory hours per week. PREREQUISITE: senior standing.

## NUCLEAR POWER OPERATIONS (CHEM)

1010. Chemistry for Raector Techniciana. (3). Chemistry of nuclear power plants; emphasis on water chemistry and materials used in reactor construction. Forty contact hours of instruction. Not applicable towardmajor or minor in chemistry
ind or physical science. Course createdfo
enrolled in Nuclear Studies Program.
1011. Corrosion Chemistry. (3). Basic principles underlying corrosion of metals. effect of corrosion, methods of prevention in design, use, and storage of materials, and failure case histories in generic power plants.Emphasis on special cor rosion processes in nuclear pressure vessels and tubing.
PREQUISITES: PHYS 2112 . CHEM 1010. COREQUISITE:MATH 2321.
1012. Chamical Thermodynamica I. (3). Thermodynamics, including basic concepts of energy flow and trensformation; introduction of thermodynamic properties such as enthalpy and entropy to illustrate application of laws of thermodyna mics. and entropy toillustrate application of laws of
PREREQUISITES: MATH 2321. PHYS 2512.
1013. Chemical Thermodynamica II. (3). Application of principles developed in CHEM 3030 to analysis of operation of
nuclear power plant. PREREQUISITE: CHEM 3030 or PHYS 4510.
1014. Radiochamistry for Nuclaar Plants. (3). Chemistry of fission products in nuclear fuel, including effect of their chemical reactions of fission products and their impact on environment. PREREQUISITES: CHEM 3010, PHYS 4220.

## CRIMINAL JUSTICE

ASSOCIATE PROFESSOR

## JERRY R. SPARGER, Interim Chairman

Room 405. Mitchell Hall

## E250 CRIMINAL JUSTICE (CJUS)

1100. Introduction to Criminal Justice. (3). Introduction to American criminal justica system in its three dimensions: police, courts, and corrections, tracing its development from ancient and aarly English beginnings to present time
1101. Concepts and lssues in Criminal Justice. (3). Topics emphasizing specific problems in criminal justice system.
Focus on integration of police, courts, and corrections Focus on integration of police, courts, and corrections
subsystems and their relations to community PREREQUISITE: subsystems
CJUS 1100.
1102. Street Law: A Course in Practical Law. (3). Practical application of law to everyday problems. Legal processes and resources available to every citizen; case materials in criminal, consumer, environmental, and family law with reference to consumer, environmental, and family law w
their relationship in criminal justice context.
1103. Research and Statistics in Criminal Justice. (3).
Statistical and non-statistical approaches employed in contemStatistical and non-statistıcal approaches employed in contem-
porary criminal justica; review and analysis of current findings. 3162. Drug Addiction and Alcoholism. (3). Cultural and medical aspects of use of alcohol and various other drugs; consideration of roles of law enforcement and corrections in areas
1104. Police in Amarica, (3). (3525). Comparative analysis
of problems, procedures, organization, and functions of effecof problems, procedures, organization, and functions of effective police organization.
1105. Courts and Court Administration. (3). Court operations including assignments and spacialization of judges, document preparation and calendaring of cases; consideration of problems involving court personnel, funds end other property
Incourt's custody and mainteining record of prisoners ewaiting in court s custody and
triel $\ln$ criminal ceses.
1106. Corrections in Amarica. (3). Principles of organization and management in corrections administration. Concepts of organizational behavior applied to prisons and other detention facilities and special programs in institutional management. PREREQUISITE: permission of instructor.
1107. Lew and Society. (3). Law as system of control and as mechanism for resolution of conflict. Relationship of law to political, economic and social systems critically analyzed and development of legal protession studied.
1108. Criminal Procadura I. (3). (4626). General view of
criminal justice system as to application of principles of $U . S$. criminal justice system as to application of principles of U.S. Constitution, Bill of Rights, and Fourteenth Amendment. "Due
process of law" in federal and state prosecutions and applicaprocess of law" in federal and state pro
tion of Exclusionary Rule of Evidence.
1109. Criminal Procadure II. (3). Application of various constitutional principles to investigative and prosecutive procedures of criminal justice process, including arrest, search procedures of criminal seizure, interrogation, identification procedures and trial and seizure, interrogation, identification procedures and
and post-trial proceedings. PREREQUISITE: CJUS 3521.
1110. Crima and Criminology. (3). Milieu of crime and factors influencing criminality. Major emphasis: causes of individual and group criminality and ability of criminal justice system to control crime.
1111. Individual Diracted Study in Criminel Justice. (1-4). Individual directed reading and research in special areas of
interest in field of criminal justice. PREREQUISITE: permission interest in field of criminal justice. PREREQUISITE: permission of director.
1112. Crime end Criminal Typologias. (3). Classification of crime and typical elements involved in each type of crime; classification of criminal offenders and salient career variables
associated with each type of offender relative to beckground, associated with each type and career prognosis.
1113. The Administration of Criminal Juatice. (3). (3126) Criminal justice procedures for detection of crime and arrest of suspects through prosecution, adjudication and sentencing
and imprisonment, to release and revocation. Policies and and imprisonment, to release and re
practices in criminal justice process.
1114. Ethical Dilammaa in Criminel Justice. (3). Legal, moral, and social implications of ethical dilemmas in criminal justice, including police use of deadly force, police discretion, victimless crimes, surveillance, enforcement of unpopular capital punishment. Subcultural norms and dilemmas they present to criminal justice practitioner.
1115. Internship in Criminel Justica. (1-3). Experience in actual criminal justice setting; internship initiated by department in agency, and both department and agency supervise 6 and direct student program. May be repeated for maximum of 6 hours. P
1116. Seminar in Criminal Justice. (3). Current criminal justice issues and problems, with review of professiona literature in particular areas of criminal justice. May be repeated for maximum of 6 hours credit. PREREQUISITE: senior standing and invitation of criminal justice faculty.
1117. Pravention and Datarrance of Crima. (3). Theoretical and practical strategies for crime prevention and deterrence. Social, environmental, and mechanical developments. Police, courts, and correctional elements of criminal justice system analyzed in terms of current effectiveness and future potential for crime suppression.
1118. Comparetiva Polica Administration. (3). Worldwide police organizations and techniques; recent developments in Great Britain, France, West Germany and Scandinavian countries. Includes analysis applicable to U.S. police agencies. 4231. Public Ralations and tha Polica. (3). Role of law enforcement personnel and administrators in policecommunity relations; forms and possible approaches for improving communications with public; role of police officer in improvement of public image.
1119. Organizad Crima. (3). Nature, structure, characteristics, and investigation of syndicated crime; its impact on social and economic conditions in country.
1120. Privste and Industrial Security. (3). Role and function of private police organizations and legal restrictions on private security personnel. Facets of private security to include retail, industrial and corporete security.
4424-6424. The American Prison System. (3). (3424). Historical development, organizational structure, program
content, and current problems of American correctional content, and
institutions.
4425-6 425. Community Based Corrections. (3). Community based strategies for dealing with criminal offenders. Includes parole, probation, pardon, diversion programs, community residential services, restitution, role of voluntary organizations, and correctional techniques suited to non-institutional settings. 4430. Correctional Casework. (3). Involves integrated phases: sociel invastigation; diagnosis; prescription; implementation and follow-up. Basic goals to reduce crime and recividism through application of acceptable standards of practice in these phases. For probation officers, counselors. classification officers, parole officers, court-prison employees and students majoring in criminal justice.
4520-6520. Substantiva Criminal Law. (3). (3520). Substance of the crime, including common-law sources and basic principles, types of offenses, responsibility, justification and axcuse, and reletad areas.
1121. Principles of Evidence and Proof. (3). Rules of evidence and matters of proof affecting criminal investigation in investigatory and prosecutive stages of criminal justice. Socio-legal aspect of basic rules of evidence including hearsay rules, impeachment, matariality end relevancy, privilege, eyewitness identification.
4632-6532. Constitutional Rights of Prisoners. (3). Legal status of parsons during preconviction and post-conviction continement; includes fectors involving discipline, legel services, communication, medical eid, end related matiers;
consideretion of civil end criminal liebility of prison officiels. PREREQUISITE: CJUS 3521 .

4533-6533. Tha Juvenile Justica Syatem (3). History, organization, programs and procedures of agencies charged with control and prevention of juvenile deliquency including police, juvenile units. juvenile court, and juvenile correctional agencies.
4541-5641. Ceuaes of Crima and Dalinquancy. (3). Systematic survey of criminal behavior as approached from various disciplines and perspectives. Criminogenic, influences of society and the criminal justice system; methods of reducing crime and delinquency.

## ENGLISH

PROFESSOR J. LASLEY DAMERON, Interim Chairman

Room 467, Patterson Hall

All candidates for graduation at Memphis State University are required to complete ENGL 1101 and 1102 or their equiva-
lents, with a grade of C or better. Before enrolling in ENGL lents, with a grade of $C$ or better. Before enrolling in ENGL
1101 , a student must have either: (1) an ACT English score of 1101, a student must have either: (1) an ACT English score of
19 or above, or (2) an SAT verbal score of 450 or above, or (3) a 19 or above, or (2) an SAT verbal score of 450 or above, or (3) a
satisfactory completion of a placement essay administered by satisfactory completion of a placement essay administered by the Department of English. All other students must success-
fully complete ENGL 1100 with a grade of $C$ or better before fully complete ENGL 1100 with a grade of C or better before
proceeding to ENGL 1101. After successful completion of ENGL 1101 and 1102, all students must take any two of the following: 2101, 2102, 2103, 2104, 2105, 2106, or their equivalents. Freshman and sophomore sequences must be scheduled until completed. ENGL 1101 and 1102 must be
taken in sequence; no credit will be allowed for ENGL 1102 taken in sequence; no credit will be allowed
until 1101 has been successfully completed.

## E080 ENGLISH (ENGL)

101. English aa a Sacond Lenguaga. (1). Introduction to English. Concentration on aural-oral skills; introduction to grammar and sentence structure. Two weekly audio-lingual laboratory sessions required. Open to non-native speakers of English only. Admission by placement only.
102. English as a Sacond Languega. (1-2). Intermediate reading and composition. Selected readings, review of gramlingual laboratory optional. Open to non-native speakers of English only. Admission by placement only.
103. English as a Second Languaga. (1-3). Advanced composition. Advanced readings, construction of essays, and study of mechanical writing skils. Audio-lingual laboratory pote. Open to non-haive sils. Als or English only.
NOTE:Tha accumulation of thras cradit hours from the above courses and succesaful completion of 0103 will ba
considarad tha aquivalant of $E N G L 1101$. Not mora than 3 considarad tha aquivalant of ENGL 1101. Not mora than
hours cradit may ba accumulated in 0101, 0102, 0103.
104. Introduction to Compoaition. (3). Review of language fundamentals and English grammar, with extensive practice in writing sentences and paragraphs. For those students who need instruction at the pre-English 1101 level, or who simply want a refresher course in basic writing. RESTRICTION Satisfies no English requirement for any University degree. 1101. English Compoaition. (3). Practice in expository writıng with emphasis on content, organization, and style (vocabulary PREREQUISITE: ENGL 1100 with grade of C or better, or ACT English score of 19 or above, or SAT verbal score of 450 or Engise score of or satisfactory completion of placement essay written above, or satisfactory completion of placeme
105. English Composition and Analysis. (3). Practice in expository writing which synthesizas ideas from various readings, with an emphasis on library work and on documented
papers. PREREQUISITE: ENGL 1101 with a grade of C or papers. PREREQUISIT
better, or equivalent.
106. English Literature. (3). Selected readings in English literature from beginning through eighteenth century; attention to development of literary forms and to cultural context. Composition and critical thinking beyond levels expected of
freshmen. PREREQUISITES: ENGL 1101 and 1102, with a freshmen. PREREQUISITES: ENGL 1101 and 1102 , with a grade of $C$ or better, or their equivalent.
107. English Literature. (3). Selected readings in English literature from Romantic period to present; attention to development of literary forms and to cultural context. Composition and critical thinking beyond levels expected of freshmen. sition and critical thinking beyond evels expected of freshmen.
PREREQUISITIS: ENGL 1101 and 1102 , with a grade of $C$ or better, or their equivalent.
108. Modarn European Fiction. (3). Selected readings in British and Continental fiction of nineteenth and iwentieth centuries; attention to development of fictional forms and to making of modern European intellectual and literary tradition. Composition and critical thinking beyond levels expected of
freshmen. PREREQUISITES: ENGL 1101 and 1102, with a freshmen. PREREQUISITES: ENGL 1101 and 1102, with a
grade of $C$ or better, or their equivalent grade of $C$ or better, or their equivalent
109. Poetry and Drame. (3). Selected readings of poems and plays; attention to development of genres. Composition and critical thinking beyond levels expected of freshmen. PREREQUISITES ENGL 1101 and 1102 , with a grade of C or better, or their equivalent.
110. Amarican Fiction. (3). Selected readings in American fiction of nineteenth and twentieth centuries: consideration of characteristic themes and techniques of both Amarican novel and American short story. Composition and critical thinking beyond levels expected of freshmen. PREREQUISITES. ENGL 1101 and 1102 , with a grade of $C$ or better, or thair equivalent 2106. Contemporary Literatura. (3). Selectad readings in poetry, drama, and fiction of America, Britain, and Europe Writen since World War II; attention to devel opment of literary
modes and to cultural context. Composition and critical thinking modes and to cultural context. Composition and critical thinking 1101 and 1102 , with a grade of $C$ or better, or equivalant.

Nota: No studant may enroll for an uppar-division English coursa until ha has complated satisfactorily ENGL 1101 , 1102, or thair aquivalants, and eny two of the following:
ENGL $2101,2102,2103,2104,2105,2106$, or thair ENGL 2101, 2102, 2103, 2104, 2105, 2106, or thair equivalents.
3100. Topics in English. (1-3). Contants ennouncad aach samestar
3211. 8ritish Literature of the Mediaval Period. (3).
3212. British Literature of the Sixtaanth Cantury. (3)
3213. 8ritish Litaratura of the Saventaanth Century. (3). 3214. British Literatura of the Rastoration and Eightaenth Century. (3).
3221. British Litaratura of the Romantic Period. (3).
3222. British Litaratura of tha Victorian Pariod. (3).
3224. 8 ritish Litaratura of the Twentiath Century. (3).
3321. American Literature Before 1860. (3).
3322. American Literature Since 1860. (3).
3500. Practical English Grammar. (3). Extended study of the fundamentals of English grammar, sentence structure, usage, diction, punctuation, and spelling. May not apply to the English major or minor.
3501. Modern English Grammar. (3). Introduction to current grammatical theory, especially transformational generative approach. Description of sounds, word structures, syntax, and symantics of English. Neither a review of grammar nor a remedial course.
3511. Introduction to Linguistics. (3). Introduction to the nature and functions of human language, to its structural principles, and to its place in culture and society. Emphasis on principles, and toits place in culture and society. Emphasis on Discussion of language and thought, origin of language, and other topics.
3521 . The American Language. (3). History and development of American English, especially its vocabulary. Development of American grammatical tradition and of American dictionaries Usage controversies and issues in American English. 3601. Scientific and Technical Writing. (3). Organizing and reporting scientific and technical information in writing. Emphasis on reports, memos, articles and essays about scientific and technical subjects. Also emphasizes documentation, bibliographies, appendices, and graphs. Appropriate patterns of English composition and overall organization discussed. All content comes from student's field of study.
PREREQUISITES completion of MSU English requirement and 9 hours in student's major.
3602. Writing and Editing in the Professions. (3). Workshop in techniques of communicating effectively in business, industry, and government. Developing practical writing skills for technical publications such as reports, data analyses, and
research articles. Editing practices involved in packaging and research articles. Editing practices involv
distributing such writing in printed form.
3604. Intermediate Composition. (3). (2602). Study and practice of writing essays and reports at levels beyond freshman English. Focus on construction of clear, logical well made expositions.
3605. Introduction to Creative Writing. (3). (2601). Introduction to the writing of fiction and poetry.
3701. Introduction to Literary Criticism. (3).
4001. Senior Honors Seminar I. (3). Intensive study of a problem in language or literature. Enrollment limited to English honors students.
4002. Senior Honors Seminer II. (3). Intensive study of a problem in language or Itterature. Enrollment limited to English honors students
4100-6100. Topics in English. (3). As announced each semester. Repeatable to a maximum of 6 hours when topics differ. PREREQUISITE: permission of advisor.
4231-6231. Chaucer. (3).
4232. Shakespeare's Tregedies. (3).
4233. Shakespeare's Comedies end Histories. (3).

4234-6234. Milton. (3).
4241-6241. British Novel Through Austen. (3).
4242-6242. British Novel Since Scott. (3).
4261-6251. British Drama To 1642. (3).
4262-6262. British Drama Since 1660, (3)
4321-6321. American Literature: Major Writers 8efore 1860. (3).

4322-6322. American Literature: Major Writers Since 1860. (3).
4323. Southern Literature. (3).
4341. American Novel to 1900. (3). (3341)
4342. American Novel Since 1900. (3). (3342)
4371. Black American Literature. (3).

4411-6411. European Literature to Renaissance. (3).
4412-6412. European Litereture Since Renaissance, (3).
4423. Modern British and American Poetry. (3).
4424. Modern British and American Fiction. (3).

4441-6441. Europeen Fiction. (3). (3441). Movements and writers important to development of Continental fiction from late 18 th century to present.
4461. The Bible as Literature. (3).

4601-6601. History of the English Language. (3).
4611. Language and Literature. (3). How linguistics can illuminate the analysis of literature: the nature of literary language and the linguistic options open to a writer.
4621. Lenguage and Society. (3). Place of language in society and how it creates and reflects social relationships. Geographical and social dialects, male/female differences, Geographical and social dialects, male/female differences, sive examination of implications of language differences. 4630. Practicum in ESL. ( 3 or 6). Experience in observing and teaching. peer teaching, and work with certified ESL teacher. Repeatable to e maximum of six hours
4631. Methods and Tachniques in ESL. (3). Contants announced aach semastar. Rapaatabla to maximum of 6 hours.
4632. Skills Approachas and Assassment for ESL. (3). Contents announced aach semester. Repaatabla to maximum of 6 hours.
4601. Poetry Workshop. (3-6). The nature of poatry, critical approaches to the poam, and practical axparienca in writing and ravising text. Repeatable to maximum of 6 hours with parmission of instructor.
4602. Advanced Composition (3). Principlas involvad in writıng claer axpository prose. Emphasis on applicaton of thasa principles; analysis of raadings and of student's writing. Repaatabla to maximum of 6 hours with parmission of instructor.
4603. Fiction Workshop. (3-6). Nature of short story and longer forms of fiction, critical approaches to fiction, and practical experience in writing and revising text. Repeatable to maximum of 6 hours with permission of instructor
4604-6604. English Prosody. (3). A study of metrics, forms, and types of poetry in English with attention to the principal traditions and critical ideas associated with the writing of verse in English.
4606-6606. Forms of Fiction. (3). A study of how fiction works through analyzing the short story, the novella, and the novel with attention to technical developments.
4801-6B01. Research, Report, and Term Paper Writing. (3). Principles and practices in planning, researching, organızing, writing, and documenting a 3000-4000 word paper on subjects drawn from student's field ( e. g., social and natural sciences, engineering, business, law, etc.). Includes proper
methods of library research, and preparation of formal methods of library research,
manuscript, including abstract.
4900. Independent Study. (1-3). A selected topic or problem in the field of literature, language, or writing. PREREQUISITE: permission of instructor.
4996. Honors Thesis. (1-3).

EO90 COMPARATIVE LITERATURE (COLI)
4400. The Practice of Comparetive Litereture. (3). Introduction to theory, methods, and objectives of comparative literature.
4791. Studies in Comperative Literature. (3). Selected authors, works, or literary problems. May be repeated for a maximum of 6 hours credit

## FOREIGN LANGUAGES AND LITERATURES PROFESSOR <br> SHARON E. HARWOOD, Chairman

Room 375A. Dunn Mathemetics
Foreign Lenguages Building

EO90 COMPARATIVE LITERATURE (COLI)
4400. The Practice of Comparative Literature. (3). Introduction to theory, methods, and objectives of comparative literature.
4791. Studies in Comperetive Litereture. (3). Selected authors, works, or literary problems. May be repeated for a maximum of 6 hours credit.

## E110 CLASSICS (CLAS)

With the exception of CLAS 4791, none of the following courses may be used to setisfy the foreign language requirements, nor may they be epplied towerd e mejor in classical langueges.
2021. Word Origins and Vocebulary Development. (3). Latin and Greek elements found in English; emphasis on building of standard English vocabulary.
2481. Greek and Roman Mythology. (3). Thematic study of classical myths and their function in ancient literature. Emphasis on reading myths in ancient sources in translation.
3021. Scientific Terminology. (3). Origin end derivation of words used in medicine and the sciences; emphasis on words used in medicine and
building of scientific vocabulary.
3412. Roman Culture. (3). Study based on literary sources, of public and private life, including such topics as family life, slavery, religion, medicine, law, and technology. Recommended for teachers.
3413. Greek Literature in Trenslation. (3). Reeding and analysis of masterpieces of Greek literature in English translation from Homer to Lucian. Emphasis on development of literary types.
3414. Roman Literature in Translation. (3). Reading and enalysis of masterpiece of Roman literature in English translation from origins to close of Silver Age. Emphasis on genres of Roman literature.
4791. Special Studes in Classics. (1-3). Topics in classicel literature and civilization. May be repeeted for maximum of six hours credit. PREREQUISITE: permission of cheirman end instructor.

E140 GREEK (GREK)
1101. Elementary Greek. (3). Elements of Greek grammar end syntax; practice in reading and translation.
1102. Elementary Greek. (3). Completion of basic grammar and syntax, with edditionel readings. PREREQUISITE: GREK and syntax, with edditio
1101 or the equivalent.
2201. Xanophon. (3). Raadings and intarpratation of
Xanophon's Anabasis. PREREQUISITE: GREK 1102 or the equivalant
3111, Graak Historians. (3). Qaading and analysis o selections from writings of Herodotus. Thucydidas, and latar selections from
3611. Greek Tragedy. (3). Reading and analysis of salactad tragedias of Aaschylus, Sophocles, and Euripidas.
3911. Plato's Apology. Crito. (3). Reading and analysis of dialoguas of Plato which giva a pralude to death of Socrates. 4441. Homar. (3). Raading and analysis of selactions from Homer's lliad and Odyssey.

## E170 LATIN (LATN)

1101. Elamentary Latin. (3). Elamants of grammar: practice in Latin composition and translation.
1102. Elementary Latin. (3). Completion of elementary Latin grammar, with additional readings. PREREQUISITE: LATN 1101 or the equivalent.
1103. Intermediate Latin. (3). Review of basic Latin grammar with reading selections from The Go/den Fleece and Roman history. PREREQUISITE: LATN 1102 or the equivalent.
1104. Intermediate Latin. (3). More advanced readings from major authors. PREREQUISITE: LATN 2201 or equivalent.
1105. Roman Historiens. (3). Readings and analysis of selections from Caesar. Livy, Tacitus, and Suetonius; emphasis selections from Caesar. Livy, Tacitus,
on nature of Roman historiography.
1106. Vergil. (3). Reading and analysis of the Aeneid.

3B11. Ovid. (3). Reading and analysis of the myths in Qvid's Metamorphoses.
3912. Cicero. (3). Reading and analysis of De Amicitie and De Senectute.
4411. Roman Letter Writers. (3). Reading and analysis of Cicero's Letters.
4611 . Roman Satire. (3). Reading and analysis of satires of Horace, Persius, and Juvenal.
4711 . Elegy, Lyric, and Epigram. (3). Reading and analysis of selections from Catullus, Horace, Tibellus, Propertius, and Martial.

## E210 LANGUAGES (LANG)

1701-1702. Special Studies in Modern Foreign Languages. (3, 3). Freshman-level instruction in languages not regularly offered by Department of Foreign Languages; offered if and when sufficient demand exists and instructors available. Although credit earned in these courses may be used to satisfy foreign language requirements for degrees, students should be aware of two important points: (1) foreign language requirement for degrees in College of Arts and Sciences specifies that all twelve semester hours (or six for some professional degrees) must be in same language; (2) unless demand is sufficient and unless teachers are available, the University cannot offer enough courses to enable student to meet these requirements.
2701-2702. Special Studies in Modern Foreign Langueges (3, 3). Continuation of Language 1701-1702. Qffered provided structor is available and there is sufficient student enrollment.

## E120 FRENCH (FREN)

1101. Elementery French. (3). Elements of grammar and pronunciation; reading of simple selections.
1102. Elementary French. (3). Reading selections of increasing difficulty. PREREQUISITE: FREN 1101 or equivalent. 2201. Intermediate French. (3). Comprehensive review of French grammar, exercises in writing, and readings in French literature and culture. PREREQUISITE: FREN 1102 the literature
equivalent.
equivalent.
1103. Intermediete French. (3). More advanced readings. PREREQUISITE: FREN 2201 or equivalent.
1104. Conversation and Composition. (3). PREREQUISITE FREN 2202 or equivalent.
1105. Conversation and Composition. (3). PREREQUISITE: FREN 3301 or permission of instructor
1106. French Civilization. (3). Culture of France as raflected in its history, social institutions, art, and music. Recommended
for Foreign Language, liberal arts, and International Business for Fore
majors.
3411 . Readings in French Literature. (3). Selections from origins to present time. Emphasis on textual analysis. PREREQUISITE: FREN 3301 recommended.
1107. French for Practical Affairs. (3). Introduction to French business terminology and forms of correspondence with regular readings of business, commercial and technical publications. PREREQUISITE: FREN 3301 recommended.
1108. French for Practical Affairs. (3). Continuation of French 3791. PREREQUISITE: FREN 3791 or equivalent.
4301-6301, French Phonetics. (3). Theory and practice of French sounds; especially recommended for teachers of French. PREREQUISITE: three vears of college French or permission of instructor
4306-6306. French Stylistics. (3). Translations of English prose into French; emphasis on style and grammer. Recom mended for all French majors. PREREQUISITE: FREN 3302 or permission of instructor.
4306-6306. Applied French Linguistics. (3). (4501). Current esearch in linguistics, psycholinguistics and sociolinguistics and their contribution to second language teaching and second-language learning.
1109. Literature 8 efore 1600 . (3). Survey of representetive masterpieces of Middle Ages and Reneissence. Reedings from Middle Ages include Le Chenson da Rolend, Yvein, leis of Marie de France, poetry of Villon, and selections from hroniquers. Readings from Reneissance include selections from Gargentua et Pentagruel, Essais of Montaigne, Defense Sceve, du Belley, and Ronsard.
1110. Tha Seventeanth Century. (3). (3421, 3422). Survey of classical literature; emphasis on theatre of Corneille, Moliere, and Racine and their relationship to critical theories of Boileau. Selected readings from Mme de la Fayette, La
Fontaine, Mme de Sevigne, La Bruyare, and La Rochefoucauld. 4431-6431. The Ninateenth Century Franch Novel. (3). French novel from Revolution to twentieth century, traating French novel from Revolution to twentieth century, traating
movements of Romanticism, Realism, and Naturalism as movements of Romanticism, Realism, and Naturalism as
reflected in works of such authors as Balzac, Stendhal, reflected in work
Flaubert. and Zola
4432-6432. Tha Twentieth Century French Novel. (3). Survey of twentieth-century French novelists including Prou Gide, Mauriac. Malraux, Sartre, Camus, Robbe-Grillet.
4451-6451. The Nineteenth Century French Drama. (3). French Drama from 1800 to 1897, including Hugo, Vigny, Musset, Scribe, Augier, Labiche, Dumas, Curel, 8ecque. Maeterlinck, and Rostand.
4471-6471. Nineteenth Century Poetry. (3). French poetry from Lamartine to Mallarme.
1111. Special Studies in French Literature. (3). Topics in French literature. May be repeated for maximum of 6 hours credit. PREREQUISITE: permission of the chairman and instructor.
4701-6701. French for Reading Knowiedge I. (3). Introduction to reading French. Intensive drill in recognizing and interpreting grammatical structures, especially those peculiar interpreting grammatical structures, especially those peculiar
to scholarly writtenlanguage. Emphasis on vocabulary building to sholarly writening determining the meaning of words not previously and on determining the meaning of words not previousty
encountered Reading of texts in French at sight or after encountered Reading of texts in French at sight or after
preparation. No previous knowledge of French required. Does preparation. No previous knowledge of French required. Does
not fulfill any part of undergraduate language requirement and not fulfili any part or undergradua
4702-6702. French for Reading Knowledge II. (3) Further work in recognizing and interpreting grammatical structures. Reading of specialized scholarly texts. Does not fulfill any part of undergraduate language requirement and cannot be applied toward major.

## E130 GERMAN (GERM)

1101. Elementary German. (3). Elements of grammar and 1101. Elementary German. (3). Elements of grammar and
pronunciation: reading of simple selections. simple converpronunc
sations.
1102. Elementary German. (3). Continuation of basic grammar and pronunciation. Reading selections and conversations of increasing difficulty. PREREQUISITE: GERM 1101 or equivalent
1103. Intermediate German. (3). Completion of basic grammar, syntax, and pronunciation. Exercises in writing: readings in German literature and culture; conversations. readings in German iterature and cultu
1104. Intermediate German. (3). 2201, More advanced readings in German literature and culture. PREREQUISITE: GERM 2201 or equivalent
1105. Scientific German. (3). A contınuation of 2201, with readings in science areas. PREREQUISITE: GERM 2201 or equivalent.
1106. Conversation and Composition. (3). PREREQUISITE: 3301. Conversation and
GERM 2202 or equivalent.
1107. Conversation and Composition. (3). PREREQUISITE. GERM 2202 or equivalent.
1108. Introduction to German Literature and Culture I. (3). From beginnings to late eighteenth century. PREREQUISITE: GERM 2202 or equivalent.
1109. Introduction to German Literature and Culture. II. (3). From late eighteenth century to modern period. PRE: REQUISITE: GERM 2202 or equivalent.
1110. German for Commerce. (3). Introduction to German
business terminology and forms of correspondence; regular readings of business, commercial and technical publications. PREREQUISITE: GERM 2202 or equivalent.
1111. German for Commerce. (3). PREREQUISITE: GERM 3791.

4443-6443. Mejor German Writers of the Twentieth Century. (3). Selected works of Hesse, Thomas Mann, Kafka, Frisch, Duerrenmatt, Brecht, and 8oell. PREREQUISITE: two courses from the group GERM $3301,3302,3411,3412$; or permission of instructor.
4461-6461. The German Drama. (3). Survey of dramatic literature from sixteenth to twentieth centuries; readings from Reformation, 8 aroque, Enlightenment, Sturm und Drang., Classicism, Romanticism, Realism, and modern period. PRE3411 , 3412 ; or per mission of instructor.
4466. German Narrative Prose. (3). Reading of major prose writings from Romanticism to present Emphasis on the Novel/e. PREREQUISITES: one course from the group GERM 3301, 3302, $3410,3411,3412$; or permission of instructor.
4601. Applied German Linguistics. (3). Application of modern linguistic theories to learning German PREREQUISITES: two courses from the group GERM 3301, 3410. 3411. 3412, or permission of instructor.
4511. The German Language: Development and Structure. (3). German language in its various stages of development. PREREQUISITE: GERM 3301 or 3302; or permission of
instructor. instructor
4791. Special Studies in German Language or Literature. (3). Topics in German language or literature. May be taken
twice for credit. PREREQUISITE: permission of chairman and twice for credit. PREREQUISITE: permission of chairman and instructor
4701-6701. German for Reading Knowledge I. (3). Introduction to reading of German. Intensive drill in recognizing and interpreting grammatical structures. especially those peculiar to scholarly written language. Emphasis on vocabulary building and on determining meaning of words not previously preparation. No previous knowledge of German required Does not fulfill any part of undergraduate languaga raquiramant and cannot be applied toward major.

4702-6702. German for Reading Knowledge II. (3). Further work in recognizing and interpreting grammatical structuras Reading of specialized scholarly texts. Does not fulfill any part of undergraduate language requirement and canot be applied toward major

## E160 ITALIAN (ITAL)

1101. Elamantary Italien. (3). Elements of grammar and pronunciation; reading of simple selections.
1102. Elementary Italian. (3). Selections of increasing difficulty. PREREQUISITE: ITAL 1101 or equivalent.
1103. Intermediate Italian. (3). Comprehensive review of Italian grammar, exercises in writing, and reading in Italian literature and culture. PREREQUISITE: ITAL 1102 or equivalent. 2202. Intermediate Italian. (3). More advanced readings PREREQUISITE: ITAL 2201 or equivalent
1104. Survey of Itelian Literature. (3). Qutstanding writers of eighteenth, nineteenth, and twentieth centuries: attention to Goldoni, Alfieri, Leopardi, Manzoni, Pirandello, and Benedetto Croce.
1105. The Sixteenth Century. (3). Literature of Italian Renaissance: Ariosto, Machiavelli, Cellini, Sasso, and others.

## E165 JAPANESE (JAPN)

1101. Elementary Japenese 1. (3). Principles of pronunciation; everyday expressions; basic sentence patterns through oral practice; writing and reading using the Roman alphabet. 1102. Elementary Japenese II. (3). Continued study of sentence patterns through oral and (Romanized) written practice; the katakana and hiragana syllabaries
1102. Intermediate Japanese I. (3). Continued study of sentence patterns through oral and written practice; introduction to the Japanese writing system, with approximately
250 kanji and their compounds in readings and written practice.
1103. Intermediate Jepanese II. (3). Continued study of sentence patterns; conversation; additional kanji to a total of approximately 500 : readings.

## E190 RUSSIAN (RUSS)

1101. Elementery Russien. (3). Elements of grammar and pronunciation; reading of simple selections.
1102. Elementary Russian. (3). Selections of increasing difficulty. PREREQUISITE: RUSS 1101 or equivalent.
1103. Intermediate Russian. (3). Comprehensive review of Russian grammar, exercises in writing, and readings in Russian literature and culture. PREREQUISITE: RUSS 1102 or equivalent.
1104. Intermediete Russien. (3). More advanced readings. PREREQUISITE: RUSS 2201 or equivalent.
1105. Conversetion and Composition. (3). PREREQUISITE: RUSS 2202 or equivalent.
1106. Conversation and Composition. (3). PREREQUISITE: RUSS 3301 or permission of instructor
1107. Survey of Russien Literature. (3). From earliest chronicles, folktales, and legends through classical period to end of eighteenth century
1108. Survey of Russian Literature. (3). From beginning of nineteenth century to Soviet period. Authors include Pushkin, Gogol, Lermontov, Turgenev, Doestoevsky, Tolstoy, and Chekhov.
1109. Russian Literature of the Nineteenth Century. (3). Introduction to authors who herald Golden Age of Russian Literature; representative works from Pushkin, Lermontov Gogol, and Turgenev.
1110. Russian Literature of the Nineteenth Century. (3). Readings in representative works of Doestoevsky. Tolstoy. Chekhov, and Gorki.
1111. Russian Literature of the Twentieth Century. (3) Introduction to works of Bunin, Zamjatin, Bely, A. Tolstoy Scholokhov, and Solzhenitsyn.
1112. Russian Literature of the Twentieth Century. (3). Introduction to works which herald Silver Age of Russian poetry. Authors include Blok, Brusov, Akhmatova, Zwetaeva and Mandelstam.
1113. Survey of Russian Civilization. (1). (COLI 3611) Russia and its people; highlights of Russian civilizetion as revealed in the fields of literature, music, painting, and architecture. May not be used for Russian language credit.
1114. The Art of Translating Russian. (3). Translations of material from Russian to English in approved content area. PREREQUISITE: RUSS 2202 or equivalent

## E200 SPANISH (SPAN)

1101. Elementary Spanish. (3). Elements of grammar and pronunciation; reading of simple selections.
1102. Elamentary Spanish. (3). PREREQUISITE: SPAN 1101
or the equivalent.
1103. Intermediate Spanish. (3). Comprehensive review of Spanish grammar, exercises in writing, conversation, and Spanish grammar, exercises in writing, conversation, and
readings in Hispanic literature and culture. PREREQUSITE: readings in Hispanic liter.
SPAN 1102 or equivalent.
1104. Intermediate Spanish. (3). More advanced readings PREREQUISITE: SPAN 2201 or equivalent.
1105. Conversation and Composition. (3). (3301, 3302) Practice in use of the language. May be repeated for maximum of 6 credit hours. PREREQUISITE: SPAN 2202 or equivelent
1106. Spanizh Literatura and Civilization. (3). Mesterpleces of Spanish Literature coordinated with discussions of civili zation and history. PREREQUISITE: SPAN 2202 or equivalent
1107. Spanish American Literature and Civilization. (3). Masterpieces of Spanish American Literature coordineted SPAN 2202 or equivalent.
1108. Spanish for Commarce. (3). Introduction of Spanish business terminology and forms of correspondence; regular readings of business, commercial and technical publications. PREREQUISITE: SPAN 2202 or equivalent.
1109. Spanish for Commerce. (3). Continuation of Spanish 3791 PREREQUISITE: SPAN 3791.
4301-6301. Spanish Phonology. (3). Priniples of analysis of the sound system of human language; general sound system (phonetics) of Spanish; distinctive features (phonemics) of Spanish; and phonemic contrastive analysis of sound systems of Spanısh and English.
4302-6302. Advanced Grammar. (3). Thorough and systematic presentation of Spanish grammar Recommended for
Spanish majors. PREREQISITE SPAN 3301 and 3302.
4304-6304. Evolution of Spanish. (3). General history of Spanish language, based on political and cultural history of Spanish language, based on palitical and cultural history of Spain and Spanish America. History of sound system,
grammatical structures, word borrowings, and changes in meaning.
4305-6305. Spanish American Dielectology. (3). Fundamental notations of language variation, regional and social varieties and linguistic demography of general features of Latın American Spanish with respect to phonology, morphosyntax, and semantics.
4306-6306. Applied Spanish Linguistics. (3). (4501) Current research in linguistics, psycholmguistics and sociolinguistics and their contribution to second-language teaching and second-language learning.
4420-6420. Medieval Spanish Literature. (3). Reading of Qld Spanish. Medieval spanish liteof instructor
4421-6421. The Golden Age. (3). Spanish lyric poetry and drama of sixteenth and seventeenth centuries. PREREQUISITES SPAN 3411 and 3412 , or permission of instructor.
4423-6423. Cervantes. (3). Don Quixote and the Novelas
$4430-6430.18$ th end 19 th Century Spanish Litereture. (3).
Romantic and post-romantic poetry and drama Costumbrismo Romantic and post-romantic poetry and drama Costumbrismo and rise of regional novel, realistic novel, and naturalistic novel.
4431-6431. Contemporary Spanish Prose. (3). Spanish prose from Generation of 1898 to present. PREREQUISITES: SPAN 3411 and 3412, or permission of instructor.
4432-6432. Contemporery Spanish Poetry and Drama. (3). Spanish poetry and drama from Generation of 1898 to present. PREREQUSIITES: SPAN 3411 and 3412 , or permission of instructor
4632-6532. Spanish American Drama. (3). Development of the drama in Spanish America; emphas is on twentieth century
REREQUISITES SPAN $3411-3412$ or one of SPAN 3511 3512.

4561-6561. Spenish American Prose Fiction 1. (3). Development of novel and short story in Spanish America from beginnings through Mexican Revolution. PREREQUISITE:
SPAN 3511 SPAN 3511
4562-6562. Spanish American Prose Fiction II. (3). Spanish American novel and short story from Mexican Revolution to present. PREREQUISITE: SPAN 3512
4791-6791. Special Studies in Hispanic Literature. (3). Topics in Hispanic Literature. May be repeated for maximum of 6 hours credit. PREREQUISITE: permission of chairman and instructor.

## GEOGRAPHY AND PLANNING <br> PROFESSOR W. THEODORE MEALOR, Chairman <br> Room 107, Johnson Hall

The prerequisite for all 3000 and 4000 level courses is either junior standing (a minimum of 55 semester hours credit) or the permission of the instructor.

## E220 GEOGRAPHY (GEOG)

1101. Introduction to Earth Science: Weather and Climate. (4). Earth-sun and earth-moon relations, oceans and their movements, weather, and climate. Three lecture, two labora-
tory hours per week. tory hours per week.
1102. Introduction to Earth Science: Landforms. (4). Maps as basic tool in understanding earth phenomena, landforms, and aspects of local physical geography. Three lecture, two and aspects of local physic
laboratory hours per week.
1103. Introduction to Human Geography. (3). Geographical aspects of human behavior. Focuses on distributional patterns and interactions of such cultural characteristics as language. religion, politics, and economics.
1104. Survey of Developing World Regions. (3). Survey of economic, cultural, and physical traits characteristic of developing nations; focuses on geographic problems and aspects of development of Third World nations in Latın Americe, Africa, and Asia.
1105. Survey of Industrialized World Regions. (3). Emphasis on economic, cultural, and physical trats characteristic of character to North America, Europe, USSR. Japan, Australia, and New Zealand
1106. Peoples and Cultures of the World (Same as ANTH 3200). (3). Major ethnographic areas and selected cultures of world.
1107. Principles of Conservation. (3) Current problems and responsibilities relating to conservation of soil, minerels. forests, water, wild life, and natural beauty of earth.

1108. Economic Geogrephy. (3). Spatial characteristics and distribution of economic activities
1109. Geographic Elements in Urban and Regional Planning. (3). Introduction to regional and urban planning emphasizing spatial relationships of physical, economic, and cultural phenomena necessary in planning process
1110. Map Intelligence. (3). Comprehensive study of maps as geographic tools that enable user to gain knowledge of earth through map reading and map interpretation and to make intelligent use of such map information.
1111. Map Projections: Analysis end Construction. (3). Analysis and construction of select number of projections for depicting earth's curved surface as transformed to plane surface to provide accurate framework for displaying particular distribution on map.
1112. Mep Design. (3). Introduction to cartographic theory, planning and construction of maps. Two lecture, two /aboratory, hours per week.
4111-5111. Earth Science I. Tha Atmosphere. (3). Physical processes underlying behavior and responses of atmosphere and application to understanding of relationship of man to this important element of his environment.
4121-5121. Earth Science II. The Earth. (3). Land forms, their changes, and their uses to man.
4122-5122. Earth Science III. The Soil. (3). Processes and dynamics of soil profile development. Major models of soil development examined and applied to soil genesis in Tennessee. Application of soil techniques to archaeology, planning, earth sciences, and soil conservation and erosion problems. Emphasis on field and laboratory techniques with field work in soil mapping and soil taxonomy. Two lecture, two laboratory hours per week.
4131-5131. Earth Science IV. The Oceens. (3). Analytical study of the oceans to include their physical, chemical, and biological qualities; their movements, resources, climatic influences, and importance for transportation.
4201-6201. Urbanizetion end Environment. (3). Ways man has changed natural environment by urbanization and how physical features and processes influenca development and function of cities
4203-5 203. Site Analysis. (3). Analysis of site characteristics and suitability for land development. Emphasis on environmental problems and human use as they relate to sita selection and development.
4211-6211. Climatology. (3). Systematic/regional study of climate. Emphasis on controlling factors in climate, problems climate. Emphasis on controlling factors in climate, problems
in the classification of climatic types, world distributional in the classification of climatic types, world dis
4231-6231. Water Resources. (3). Hydrologic processes and their application to needs of cities, industry, agriculture, and recreatıon.
4251-6251. Environmental Threats to Human Survival. (3). Survey of environmental threats, some of which may threaten survival of human specias. Spectrum of thraats ranges from planet-wide climatic changes and potential changes in earthsun relationships to more immediate threats such as inadequate food production, local disasters, and nuclear contamination.
4304-6304. Geography of Europe. (3). Geographic analysis of lands west of Iron Curtain.
4305-6305. Geography of the USSR. (3). Regional analysis of Soviet Union and its satellites.
4306-6306. Geography of Asia. (3). Significance of regional differences in Japan, China, and India, and brief survey of remaining areas.
4313-6313. Geography of the United Stetes and Canede. (3). Physical, cultural, and economic characteristics of United States and Canada
4316-6316. Geography of the South. (3). Selected regions in South; emphasis on changes and trends in cultural-physical complax.

4324-6324. Geography of Middle Americe. (3). Regions
and resources of Mexico, Central America, and West Indies related to present and potential aconomic development.
4325-5325. Geography of South America. (3). Regional economies, resources, and trade in the continent; with stress on changing significance of landscape related to national problems
4421-6421. Political Geography. (3). Introduction to spatial distribution, characteristics, and interaction of political processes and systems. Individual student study of selected problems required.
4431-5431. Urban Geography. (3). Allocation of land for urban uses; adjustments and adaptations to axisting physical phenomena; patterns, functions, and forms of specific urban land areas; and some continuous problems of urban development and growth.
4434-5434. Land Utilization and Settlement. (3). Characteristic ways that man utilizes land. Emphasis on effect of acteristic ways that man utilizes land. Emphasis on effect of urbangro

4442-5442. Gaography of Business and Industrial Location. (3). Geography of retailing, wholesaling, and manufacturing; emphasis on locational analysis of selected business enterprises.
4443-6443. Transportation and Urbanizetion. (3). Various transportation modes and networks and impact they have on land use and contemporary development problems.
4453-5463. Geography of Food and Agricultura. (3). Ability of earth-surface areas to produce food necessary to sustain rapidly growing world population. Includes environmantal constraints which tend to limit food production and produce food supply crises.
4500-6500. Computer Applications for Spatial Anelysis. (1). Use of computers as tool for spatial problem solving, incorporating computer language and operating systems for micro and large computers.
4502-6502. Computer Mapping. (3). Use of computer mapping programs as effective techniques for visual presentation of wide variety of data. Iwo lecture, two laboratory hours per week.
4503-6503. Map Production. (3). Scribing, color separation, printing, and darkroom processes. Iwo lecture, two leboretory hours per week.
4510-6510. Aarial Photo Interpretation. (3). (Same as GEOL 4510) Elements and steps involvad in interpreting, measuring, and mapping of images apparing on aerial photographs. Two lecture, two laboretory hours per week.
4511-6511. Remote Sensing of the Environment. (3). (Seme as GEOL 4512 ) Survey of theory and application of using color, infrared, thermal, and radar images generated from aircraft and satellites for geographic, environmental, and planning purposes. Two lecture, two leboretory hours per week.
4521-6521, Quantitative Methods. (3). Introduction to quantitative methods in spatial analysis
4531-6531. Field Methods. (3). Basic methods of geographic analysis used in classifying, analyzing and reporting fieldgenerated data including field mapping, sampling procedures, questionnaires, and ane-he/f lecture, three feboretory hours per week.
4621. Speciel Problems. (1-3). Student, under faculty supervision, studies in-depth particular geographic topic. Repeatable with change in content to maximum of 3 semester hepers.
4700-6700. Geography Internship. (1-9), Experiance working with agency in which geographic knowledge can ba

## GEOLOGY <br> PROFESSOR PHILI DEBOO, Chairman 404 J. M. Smith Hall

## E235 GEOLOGY (GEOL)

1101. Physicel Gaology. (4). Earth's composition and structura and procassas which affact it. Emphasis on crust of aarth and procassas which continually modity surface. Three lecture, two laboratory hours per week.
1102. Historical Gaology. (4). History of aarth and its lifa as intarpratad from rock and fossil racords. Principlas of in terpreting racords and succession of geologic and biologic events which led to modern world. Three lecture, two leboretory hours per week. PREREQUISITE: GEOL 1101.
1103. Life of the Pest. (3). Fossil record of the history of life and consideration of concepts used in interpreting the and consideration of concepts used in interpreting the
significance of that record. Primarily for general student significance of that record. Primarily for general student.
Credit will not be given toward the degree requirements for e Credit will not be
major in geology.
1104. Introduction to Palaontology. (4). Fossil invertebrate animals and their importance in interpretation of ancian environ ments, evolution, and geologic time. Three /ecture, two leboratory hours per week. PREREQUISITES: GEOL 1101, 1201.
1105. Mineralogy. (4). Crystallography; physico-chamical properties, classification and genesis of minerals. Hand specimen identification of important rock-forming and aconomic minerals. Two lecture hours, four laboratory hours per week. PREREQUISITES: GEOL 1101, CHEM 1111. COREQUISITE: CHEM 1112.
1106. Optical Minaralogy. (3). Crystal optics and use of the polarizing microscope; powder diffraction and selected polarizing microscope; powder diffraction and selected
analytical techniques. One fecture hour, two faboratory hours analytical techniques. One lecture hour
1107. Igneous and Matamorphic Petrology. (3). Study and identification of igneous and metamorphic rocks. Emphasis placed on hand specimen identification with supplementary thin section examination. One lecture hour, two leboretory hours per week. PREREQUISITE: GEOL 3302.
1108. Structural Geology. (4). Rock structures; origin, critaria for recognition and solution of structural problems. Two lecture. four leboratory hours per week. PREREQUISITE: GEOL 1201; MATH 1321; or consent of instructor.
1109. Sedimentation and Stratigraphy. (4). Origin and classification of sedimentary rocks and mutual relationship of classification of sedimentary rocks and mutual relationship of sedimentary rock bodies both gaographically and through
geologic time. Lecture emphasizas comparison of modern depositional systems with their ancient counterparts. Labortory amphasizas hand specimen analysis and preparation of geologic maps. Three lecture, two laboratory hours per week. Peologic maps. Three lecture,
3802, Introduction to Oceanography. (3). Origin, wata circulation, shoreline, and desp water characteristics of oceans; role in evaluation and history of earth; mar ine lifa and its acology.
4100-6100. Petroleum Geology. (3). Application of geologic principles to search for economic accu mulations of oil and gas. Emphasis on prospect selection via subsurface techniques. Two lecture, two laboretory hours per week.
4202-5202. Geomorphology. (3). Theories of landscapa development; consideration of processes active at aarth's surface; weathering, pedogenic, mass-wasting, groundwater, fluvial, eolian, shoraline and glacial.
4301-6301. Geologic Data Analysis. (3). Use of computer and teletype in data file construction and management, use o ile with various programs, and use of statistical tests, regression lines, maps, and classification of data sets with aid computer. Iwo lecture; two laborgtory hours per we
4312-6312. Introduction to X-Ray Diffrection. (3). Basic principles of x-ray diffraction. Application to crystallographic and mineralogic problems including mineral identification by powder method. One lecture, four leboratory hours per week. PREREQUISITE: per mission of instructor.
4322-6322. Petrography. (4). Classification, description, and thin-section study of rocks by means of petrographic nicroscope. Three lecture two leboretory hours per week PREREQUISITE: GEOL 4121.
4332-5332. Introduction to Gaochemistry. (3). Geological and chemical processes which govarn or control migration and distribution of elements and ato mic specias of earth in spaca and time. Three lecture hours per week. PREREQUISITE: GEOL 2312.
4342-6342. Palaoecology and Biostratigraphy. (3). (4421). Zonal distribution, facias analysis, and palaoecology of fossils and their application to problems of earth history and dapositional environments. Emphasis on fossil fuel bearing sediments. PREREQUISITES: GEOL 3211, 3712.
4440-6440. Saismology. (3). Seismic wave propogation is developed. Other introductory topics to include earthquak source parameters, surface wave ganeration, fault plana solutions and global seismicity. Two lecture, two leboratory hours per week. PREREQUISITE: consent of instructor.
4510-6510. Aeriel Photo Interpratation. (3). (Same as GEOG 4510 ). Elements and steps involved in interpreting, GEOG 4610). Elements and steps involved in interpreting, graphs.
4511-6511. Economic Mineral Deposits. (3). Origin, occurrance, and composition of metallic and non-metallic minera deposits. Three lecture hours per week. PREREQUISITES: GEOL 2311,2312 , and 3512.
$4512-6512$. Remote Sensing of the Environment. (3). (Same as GEOG 4511 ). Theory and application of using color infrarad, thermal and radar images generated from aircraft and satelites for gaographic, geologic, environmental and planning purposas.

4601-6601. Enginaering Gaology. (3). Application of principles and knowledge of geology to engineering practice, especially in highways, construction, dam sites, foundations, water resources, and location of certain engineering materials. PREREQUISITE: consent of instructor.
4622-6622. Gaology Field Camp. (6). Preparation of structural and lithologic maps in prescribed geologic areas using topographic maps and aerial photographs. Instruments used are the alidade and the Brunton compass. Offered in
summer school only. PREREOUISITES: GEOL 2312, 3512, and summ
3712.
4632-6632. Applied Gaophysics. (4). Survey of geophysical methods; emphasizes seismic and electrical investigations employed in engineering practice. Use of resistivity, seismograph and magnetometer in the investigation of subsurface materials. Location of sand. gravel, and subsurface water discussed and supplemented by field measurements with these instruments. Two lecture. four laboratory hours per week.
4642-6642. Advanced Structurel Geology. (3). Analysis of crustal structures and observed patterns of stress and strain in rocks; mechanical interpretation of geologic structures; inroduction to intra-crystalline processes and ductile bethavior of
geologic materials. PREREQUISITES: GEOL 3512, MATH 1321 .
4652-6662. Introduction to Gaophysics. (3). Fundamental topics: earth's age and thermal state: main gravity and magnetic fields; dynamic models of earth's interior; comparison of terrestrial planets. PREREOUISITES: PHYS 2111. MATH 1321
4661-6661. Ground Water Geology. (3). Ground water occurrence and movement in geologic environment. Flow theory, water quality, contamination, exploration and well design. Application for ground water supply development and aquifer protection. 37 ree ecture hours per week.
4701-6701. Spring Field Trip. (1-2). Conducted field trips during spring vacation. About 30 hours of field work follow $2-4$ hours of lectures. Open to non-majors. Among areas which may be included are Ouachita-Arbuckle-Wichita Mountains of Oklahoma, Ouachita, Ozark dome and adjacent mineral districts; central and southern Appalachians; and Gulf Coastal Plain. Check Schedule of Classes for specific location. NOTE: May be repeated three times when location varies. A total of no more than 8 hours credit may be earned. Dates. hours and credits to be arranged. PREREQUISITE: consent of instructor. 4721. Investigations in Geology. (1-3). Individual or group work on topics of current interest. PREREOUISITE: consent of instructor
4722. Investigations in Gaophysics. (1-3). Individual or group work on topics of current interest in the broad field of geophysics. PREREQUISITE: consent of instructor.
4731. Senior Thesis. (1-3). Original study, on subject of geological significance, to be carried on independently by
student with faculty supervision. PREREQUISITE: senior standing in Geology.

## HISTORY

PROFESSOR
JOSEPH M. HAWES, Chairman
Room 100, Mitchell Hall

All candidates for graduation at Memphis State University are required to complete History 2601 and 2602.

## E240 HISTORY (HIST)

1301. Tha Davalopment of World Civilizetion I. (3). Especially recommended for freshmen. Traces forms of civilization from ancient begınnings through seventeenth century.
1302. Tha Davalopmant of World Civilization II. (3). Especially recommended for freshmen. Traces forms of civilization from beginning of the eighteenth century to present.
1303. The United Stetas to 1877. (3). United States from discovary to end of political reconstruction.
1304. Tha United Stetas sinca 1877. (3). United States from 1877 to present.
1305. Special Issuas in History. (3). May be repeated for a maximum of nine hours when the topic varies.
1306. History of the Christian Church. (3). From its New Testament origins to 20th century.
1307. History of Technology. (3). Technological development and its relationship to its historical context from earliest times to present.
1308. England 8efore 1714. (3). Political, constitutional, cultural, social, and economic development of England from coming of Anglo-Saxons until Hanoverian accession in 1714 3122. England Since 1714. (3). Development of England's democratic government, considering economic, social, intellectual, diplomatic, and imperial affairs.
1309. Colonial Latin America (3). Political, economic, social and cultural development in Latin America from pre-conquest era to 1808
1310. The Latin American Netions. (3). Major political, economic, and social trends in Latin America since $1808{ }^{\prime}$ economic, and social trends in Latin America sin
Emphasis on Argentina, Brazil, Chile, and Mexico.
1311. Tha Middla Eest. (3). Political, diplometic, sociel and religious developments in Middle East from 1800 to present. 3290. Traditional Asia. (3). Comparative survey of cıvilizations in India, China, Japan, and Southeast Asia, from their tions in India, China, Japan, and Sout
beginnings through the 18 th century.
1312. Modern Asia. (3). Asia from 1800 to present, focusing on Asian reactions to colonialism, and rise of modern nation states in India, Japan, China, and Southeast Asia.
1313. Eerly Modarn Europa, 1500-1800. (3).
1314. Modarn Europa. 1800 to Present. (3).
1315. Cultural and Intallactual History of Europe I. (3). (4605). Topics in history of European culture and thought from classical Greece through high Middle Ages.
1316. Cultural and Intellectual History of Europe II. (3). (4506). Topics in history of European culture and thought from late Middle Ages to twentieth century
1317. American Diplomatic History. (3). Though including the 18 th and 19 th centuries, course concentrates on 20 th. Emphasizes relationship between foreign policy and domestic forces. Note: Students who have received credif for HIST 3801 or 3802 will not be allowed credit for HIST 3803 .
1318. Economic History of the United States. (3). Note: Students who have received credit for HIST 3821 or 3822 will not be allowed credit for HIST 3823
1319. Unitad Stetes Constitutionel History. (3). Constitutional developments from colonial period to present; emphasis on English heritage, constitutional antecedents of revolutionary era, origins and growth of federal system under
Constitution of 1787 , and evolution of modern constitutional Constitution of 1787, and evol
government in United States.
1320. Social and Intellactuel History of the United Stetas. (3). Note: Students who have recevved credit for HIST 3861 or 3862 will not be allowed credit for HIST 3863.
1321. History of Tennessea. (3). Political, economic, and social development of Tennessee from earliest times.
1322. The Old South. (3). Southern institutions prior to outbreak of Civil War.
1323. The New South. (3). South from Civil War to present. 3940. The West. (3). Significance of frontier in development of United States from Revolutionary period to 1890.
1324. The Philosophy of History. (3). History as a distinct discipline. Thought of leading Western philosophers of history about nature of history in its two senses - history as actuality and history as thought about actuality.
4010-6010. Topics in History. (3). Intensive study of selected topics in history. Topics announced in Schedule of Classes. 4012. Directad Readings. Honors. (3). Under the direction of faculty member, student reads about particular topic or topics. PREREQUISITE: admission to Honors Program
1325. Directad Readings. (3). Readings on particular topic in history under supervision of member of faculty.
4020-6020. Internship in History. (3-12). Supervised internships working with various governmental agencies, private
foundations or business of interest to historians. May be repeated for
department
1326. Saminar in Historical Reseerch. (3). Research techniques and methods by focusing on particular topics.
4126-6126. Victorian and Edwardien England. (3). Social, political, and cultural adjustments of England to exparience of industrialization in 19 th and early 20 th centuries.
4146-6145. History of Modern Germany. (3). Germany
from origins of unification movement in Napoleonic Era from origins of unfication movement in Napoleonic Era through Second World War
4160-6160. Russia to 1917. (3). Russia from earliest times
to 1917; emphasis on the rise of serfdom and autocracy and to 1917; emphasis on the rise of serfdom and autocracy and evolution of revolutionary movement.
4162-6162. History of the Soviet Union. (3). Detailed study of 1917 Revolution and major developments in government. economy, cultural and social life, and international affairs
which followed. which followed
4163-6163. History of Socialism and Marxism. (3). Socialist and Marxist thought and rise of socialist and Marxist social and poltitical movements in Europe, Russia and Far East.
Unique social, economic, and political conditions which gave Unique social, economic, and political conditions which gave
rise to experimentation with and application of Marxism.
4200-6200. History of Spain. (3). (3200). Spanish institutions. culture and politics from ancient times to present.
4240-6240. History of Mexico. (3). Political, economic, social, and cultural development of Mexico from ancient times to present
4260-6250. History of 8razil. (3). Political, economic, social, and cultural development of 8razil from early times to the present.
4260-6260. Tha World Since 1946. (3). Global ideological. 4260-6260. Tha World Since 1946. (3). Global ideological,
economic and political developmants since World War II. economic and political developmants since World war il.
Emphasizes rising affluence of industrial free market, movement of former colonies to independence, and growth in diversity among Soviet bloc nations.
4281-6281. Africa South of the Sehara. (3). Emphasis on black Africa in nineteanth and twentieth centuries. Age of imperialism and impact of West on Africa, colonial policies of European independent nations; role of African countries in world newlys.
4282-6282. Tha History of North Africa. (3). Emphasis on nineteenth and twentieth centuries. Extension of European influance and control; rise of nationalist movements; role of these areas in world atfairs
4283-6283. The History of Southern Africa. (3). European colonization and impact on African people from 1652 to date in Republic of South Africa, Rhodesia, and former High Commission territories.
4292-6292. History of Modarn China, 1800 to tha Presant. (3).

4294-6294. History of Modern Japan, 1800 to the Prasant. (3).

4296-6296. Intellectual History of East Asia Sinca 1800
(3). Evolution of modern Chinese and Japanese thought.

4321-6321. History of Ancient Civilization I. (3). Ancien Near East and Greece through time of Alexander the Great. 4322-6322. History of Ancient Civilization II. (3). Hellenistic World and rise and fall of Roman Empire.
4361-6361. History of the Byzantina Empira. (3). Byzantıne or East Roman Empire from 330 to 1453 and its influence on Slavic. Turkic, and Islamic peoples
4371-6371. Early Middla Agas. (3). Late Roman Empire, migration period, emergence of Islamic, Byzantine, and West European cultures through period of Investiture Controversy. 4372.6372. Tha High Middia Ages. (3). Urban emergence, growth of feudal monarchy, foundations of modern political institutions, m
scholasticism.
4380-6380. Renaissanca Europa, 1300-1620. (3). Transition from medieval to early modern institutions in Europe emphasis on urban growth, capitalism, emergent nationalism international diplomacy, and humanism.
4390-6390. Europa in the Age of the Reformation. (3). Characteristic political, social. economic, intellectual, and cultural developments and religious conflicts of late fifteenth and sixteenth centuries.
4401-6401. Europe in the Aga of the 8eroque. (3). Political crises, development of monarchial absolutism. rise of modern science, and cultural synthesisin seventeenth century
4440-6440. The Era of the French Revolution. (3). The Old Regime, origins and development of Enlightenment thought, and revolutionary and counter-revolutionary movements in 18 th century Europe.
4453-6453. Europa, 1815-1914. (3). Note. Students who have received credit for HIST 4451 or 4452 will not be allowed credit for HIST 4453
4461-6461. Europa, 1914-1945. (3).
4503-6503. Disaase and Medicina in History. (3). How various diseases and the medical attempts to conquer them influenced economic, political, and social action throughout history. Emphasis on significant work in history of public health and speculation about importance of environmental factors in man's future.
4620-6620. Colonial America, to 1783. (3). Political development and economic, social and cultural institutions of develiopment and economic, social and cultural institutions of Amgerican Revolution.
4630-6630. The New Nation, 1783-1815. (3). (4641).
4640-6640. Jecksonian America, 1815-1850. (3). (4642).
4670-6670. Civil War and Reconstruction, 1850-1877. (3). (4460).

4680-6680. Emargance of Modern America, 1877-1914. 13). United States from end of Reconstruction to outbreak of World War I.
4701-6701. Tha Unitad States, 1914 to the Second World War. (3). United States from outbreak of World War I to World War II.
4702-6702. Unitad States from the Second World War. (3) The United States from World War II to present
4811. United States Military and Naval History. (3). Developments since colonial period, emphasis on background and growth of national military and naval establishments. military and naval thought, difficultes accompanying modernization and assumption of global responsibilities, and problem
of relationship between clvilian and military-naval sectors in of relationship between civilian and military-naval sectors in democracy.
4823-6823. American Labor History (3). Historical development of labor movement in United States, emphasis on social economic, and political trends related to labor movement.
4824-6824. 8 usiness History. (3). Historical development of business in the United States; attention to social, economic, and political trends related to American business communities 4831-6831. History of American Family. (3). Analysis of changes in family size and structure and relationships batween changes in tamily size and structure and relationst
family and society from colonial times to present
4861-6851. History of Women in America. (3). Economic, political, social, and intellectual history of women in English American colonies and United States
4861-6861, Parks/Peopla/Public Policy. (3). Comparative study of history and administration of public land areas in the United States, and of American conservation.
4871-6871. United States Urban History. (3). (3871). Development of American cities. including formation of local Development of American cities. including formation of local Social, economic, and politic
urbanization on United States.
4881 -6881. Black Amarican History. (3). Role of blacks in America from Jamestown to present
4941-6941. History of the American Indian. (3). Role of Indian in American history
4996. Honors Thesis. (3). Under the direction of faculty member, and with approval of the Honors Committee, student writes thesis based on research in primary and/or secondar sources. PREREOUISITE: admission to the Honors Program.

## MATHEMATICAL SCIENCES

## PROFESSOR RALPH J. FAUDREE, Chairman

Foreign Languages Building

The Department of Mathematical Sciences offers general courses in methematics, statistics and computer science for siudents in all departments of the University, with specially designed programs for the principal divisions of the University Courses which satisfy specific graduation requirements of the several colleges mey be found in the description of the degree requirements for the specific college.

The courses MATH 1000, 1100, 1211, and 1212 provide preparetory instruction, as needed, for required courses. MATH 1000 provides remedial instruction in elementary algebre as preperation for MATH 1100; end MATH 1100 , Intermediata Algebra, prepares the student for MATH 1211 .
MATH 1211 provides preparation for MATH 1212, and MATH MATH 1211 provides preparation for MATH
1212 provides preparation for MATH 1321
Placement tests are aveilable to assist students in selecting a first course in mathematics.
Students may earn credit by examination in eny mathematics course except MATH 1000 and MATH 1100 efter obtaıning permission of the department chairman and peying
the eppropriate fees. A form for this purpose is eveilable in the the eppropriate fees. A form for this
office of the department chairman.
office of the department chairman.
NOTE: A student who wishes to take a course without NOTE: A student who wishes to take a course without
having had all of its prerequisites must obtain permission of the instructor and of the Chairman of the Department of Mathematical Sciences.

## E280 MATHEMATICS (MATH)

1000. 8asic Mathemetics. (3). Signed numbers; order of operations; variables, first degree equations; products and factors of polynomials; basic operations on algebreic fractions; ratıo and proportion; first degree equations in two variables; radical expressions. RESTRICTION: This course setisfies no methemetics requirement for eny degree. /t is offered solely es
preperation for MATH 1100 . NOTE: No more than three hours preperation for MATH 100 . NOTE: No more than three hours
credit in MATH 1000 and 1100 may be applied toward any credit in MATH
1001. Intermediate Algebra. (3). Set notation, first degree inequalities, absolute value equations and inequalities; operations on polynomials, operations on rational expressions; intagral, fractional and negative exponents; operations in-
volving radical expressions; complex numbers; quadratic equations: systems of linear equations; determinants. RESTRICTIONS: This course satisfies no mathemetics requirement for eny degree. It is offered solely es preperetion for
College Algebra (MATH 1211). NOTE: No more than three hours credit in MATH 1000 and 1100 may be applied toward any degree program.
1002. Concepts of Number. (3). Introduction to logic; set theory; development and applications of numeration systems; mathematical systems and algorithms. PREREQUISITE: Two
units of high school algebra or one unit of algebra and one unit units of high school algebra or
of geometry or MATH 1100 .
1003. Concepts of Algebra. (3). Relations and functions; equations; exponential and logrithmic equations; introduction
to matrices; probability; introduction to statistics. PREREQto matrices; probability; introduction to statistics. PREREQ-
UISITE: MATH 1181 . UISITE: MATH 1181.
1004. College Algebra. (3). Inequalities; quadratic equations; relations and functions; absolute value; exponential and matrices: complex numbers; roots equations and inequalities; matrices: complex numbers; roots of polynomials; sequences 1213 will not satisfy a six. semester hour Mathematics requirement. PREREQUISITE: Placement test recommended but not required Two units of high school algebra or MATH but no
1005. 
1006. Trigonometry. (3). Circular functions; inverse circular functions; graphs of circular and inverse functions; identities; equations; angles; trigonometric functions; solution of triangles; elementary application of vectors; trigonometric form of complex numbers. PREREQUISITE: Placement test recommended but not required; MATH 1211 . NOTE: MATH 1212 and
MATH 1213 will not satisfy a six semester hour Mathematics MATH 1213 wirement.
requir
1007. College Algebre and Trigonometry. (3). Exponents; radicals; quadratic functions; inequalities; relations and functions; inversa, exponential and logarithmic functions; solution of algebraic systems; trigonometric functions, identities, equations and graphs: angle measurements; sum,
differenca. half-angle and double-angle formulas; solution of triangles; laws of sines and cosines. NOTE: MATH 1211 and MATH 1213, or MATH 1212 and MATH 1213 will not satisfy a six semester hour Mathematics requirement
1008. Elementary Calculua. (3). Introduction to concepts and methods of elementary calculus of one real variable as releted to rational, exponential, and logarithmic functions; nature of
derivatives; differentietion; application of derivetive; neture of derivatives; differentietion; application of derivetive; neture of
integration; definite integral; applications of definite integral. integration; definite integral; applications of definite integral.
NOTE: Only one of the courses MATH 1312 or 1321 may be NOTE: Only one of the courses MATH 1312 or 1321 may be
used to satisfy degree requirements. PREREQUISITES: MATH used to satisfy
1182 or 1211.
1009. Analytic Geometry and Calculus. (4). Essentials of analytic geometry of the plane; nature of derivatives; differentiation of algebraic and trigonometric functions; applications of darivativas and antiderivatives. (Placement test recommended but not required.) NOTE: Only one of the courses MATH 1312 or 1321 may be used to satisfy degree requirements. Students may not receive credit for both MA
1321 and 1401. PREREQUISITE: MATH 1211 or 1213.
1010. Honors Calculus I. (4). Concepts and applicetions of differentiel and intagral calculus prasented from theoretical standpoint. NOTE: Students mey not receive credit for both
MATH 1401 end 1321 . PREREQUISITE: Permission of Honors Committee.
1011. Honors Calculus II. (4). NOTE: Students mev not
receive credit for both MATH 1402 end 2321. PREREQUISITE: Permission of Honors Committee.
1012. Selected Topics in Mathematics. (1-5). Prescribed subject matter in mathematics not specifically covered elsewhere in curriculum. Repeatable by per mission of depar
1013. Methematics of Finance. (3). Compound interest end annuities with epplicetions; introduction to methematics of life insurance. PREREQUISITE: MATH 1211.
1014. Analytic Geometry and Celculua. (4). Differentietion, integration and enalytical aspects of elementary trenscenintegration and enalytical aspects of elementary trenscen-

NOTE: Students may not receive credit for both MATH 2321 end 1402. PREREQUISITE: MATH 1212 or MATH 1213, and MATH 1321
2322. Analytic Geometry and Calculus. (4). Indeterminate forms; improper integrals; vectors and analytic geometry in 3 -space; partial differentiation; multiple integrels; infinite
series. PREREQUISITE: MATH 2321 .
2401. Honors Mathematics III. (4). Introductory point set 2401. Honology; elements of abstract elgebra. PREREQUISITES: topology; elements of absiract elgeb Committee.
MATH 1402 and permission of Honors Com
2402. Honors Mathematics IV. (4). Topics in ebstract algebre and real anelysis. PREREQUISITES: MATH 2401 end permission of Honors Committee.
2581. Concepts of Geometry. (3). Introduction to idea of
proof in postulational system; development of geometric proof in postulational system; development of geometric
relationships independent of number, including congruent triangles, similar triangles, parallelograms, end circles; epplications of number in geometry including coordinate geometry. lengths, areas, and volumes. PREREQUISITE: MATH 1182.
2701. Discreta Structurea. (3). Elementary logic; sets, relations, functions, orderings, equivalence relations, partitions; finite sets, modular arithmetic; netural numbers, mathemetical induction, strings, string programs, connectednes
traversals, graph algorithms. PREREQUISITE: MATH 1321.
3241. Matrix Theory. (3). Metrix algebra; elementery operetions; equivelence; determinants; similarity, polynomial ma1312 or 1321.
3391. Differential Equations. (3). Ordinary differential equations including series solutions. PREREQUISITE: MATH 20232
4151-6151. History of Mathematica. (3). Development of mathemetics from eerliest times to present; problem studies;
perallel reeding and class reports. PREREQUISITE: MATH perallel reeding and
$\mathbf{2 3 2 1}$ or equivalent.
4171-6171. Special Problama in Mathematica. (1-3). Directed individual study in selected area of mathematics chosen in consultation with instructor. Repeatable by per-
mission of chairman. PREREQUISITE: permission of instructor. 4241-6241, Linear Algebra. (3). Systems of linear equations; metrices and elementary row operations, vector spaces and subspaces; inner product spaces; linear transformetions; linear
functionals; annihilators; polynomials. PREREQUISITE: MATH 2321 or permission of instructor.
4261-6261. Abatract Algebra. (3). Groups; homomorphisms; rings; integral domains; polynomials; fields. PREREQUISITE: MATH 4241 or permission of instructor.
4321-6321. Modeling and Computation. (3). The nature of mathemetical modeling as viewed through exemples: deterministic discrete models, state space, deterministic continuous models, stochastic models. Models will be studied using both traditional enalysis and co
UISITE: permission of instructor.
4350-6350. Advanced Calculus. (3). (3111). Reel number system, functions and sequences, limits, continuity, differentiation; Riemann-Stieltjes integration, series of functions
PREREQUISITE: MATH 2322 . PREREQUISITE: MATH 2322
4351-6351. Advanced Calculus. (3). Integration theory; Riemann and Lebesgue integrals; partial differentiation;
implicit function theorem. PREREQUISITE: MATH 4350 or implicit function theorem
4361-6361. Complex Variablea. (3). Complex numbers; analytic functions; Cauchy-Riemann conditions; Teylor end
Leurent series; integration. PREREQUISITE: MATH 2322
4391-5391. Applied Mathematics. (3). Laplece transforms; Fourier series; introduction to partial differentiel equetions. PREREQUISITE: MATH 3391
4392-5392. Applied Mathematica. (3). Pertial differentiel equations. PREREQUISITE: MATH 4391.
4402. Senior Honora Seminar. (3). In-depth study of one or more topics in mathematical sciences; emphesis on individual research and problem solving techniques; student writes and presents an Honors Thesis. PREREQUISITE: Open only to senior Honors Students in mathematical sciences with permission of instructor.
4411-6411. Topology. (3). Introductory set theory; metric spaces; topological spaces; continuous functions; separetion axioms; separability and countability exioms; connectedness and compectness. PRER
4721-6721. Numerical Analysis I. (3). Derivation end application of computer-oriented, numerical methods for functionel approximation, differentiation, quedrature, end
solution of ordinery differential equations. PREREQUISITE: solution of ordinery differenti
MATH 2321 and COMP 4001 .
4722-5722. Numerical Analysis II. (3), Numerical methods for solving applied problems from calculus and differential
equations. PREREQUISITES: MATH 2321 end COMP 4001. 4741-6741. Linear Programming Methods. (3). Theory of linear progremming methods, problem formulation; convex sets; simplex and revised simplex methods; matrix gemes and
linear programming. PREREQUISITES: MATH 3241 end COMP linear
4001.

STATISTICS (MATH)
2611. Elementery Statistics. (3). Basic statistical concepts; elementery probebility theory; normel curve end applicetions, linear, multiple, and partial correletion; ste
PREREQUISITE: MATH 1100 or equivelent.
4611-6611, Statisticel Methods I. (3). Sinomiel, hypergeometric, Poisson, multinomial and normal distributions, test of hypotheses, chi-squere test, t-test, F-test, etc. ; non
paremetrictests; correlation analysis. PREREQUISITE: 6 hours paremetrictests; correlation analysis. PREREQUIS
in methemetics at level of MATH 1211 or ebove.
4612-6612. Statistical Methods II. (3). Introduction to anelysis of veriance, regression and analysis of covarience.
PREREQUSITE: MATH 4611 .

4613-6613. Introductory Statistical Theory. (3). Distributions of functions of rendom veriables; limiting distributions; correletion end regression; Neyman-Parson Lemma; likelihood ratio tests; sufficie
SITE: MATH 2321.
SITE: MATH 2321
4631-6631. Prob
4631.6631. Probability. (3). Basic concepts in probability; probability models; applications. PREREQUISITES: 6 hours in mathematics et level of MATH 1211 or above.
4671-6671. Topics in Statistics. (1-3). Recent developments in statisticel methods and applications. PREREQUISITE: permission of instructor

## E285 COMPUTER SCIENCE (COMP)

1200. Computer Literacy. (4). Computer and its role in modern world; history of computing and social, ethical, and legal implicetions of computer use; introduction to computer programming end use of programs for educational and cereer tasks. Three lecture, three leboretory hours per week. Setisfies computer literacy requiremant for graduation. Credit may not be applied for degree or concentration in Computer Science. PREREQUISITES: MATH 1100, or two units of high schoo algebra, or one unit of algebra and one unit of geometry.
1201. Computer Programming I. (3) (1000). Principles of computer programming style, expression, and documentation design specifications, algorithmic problem solving, stepwise primitive operations, end branching; coding in high-leve programming language: data typing, standard procedures and functions, subprograms and parameters, control structures, and I/O. Note: For Computer Science majors. Non-majors lecture hours, two leboretory hours per week.
1202. Computer Programming II. (3). Further principles of computer progremming style, expression, and documentation design of algorithms, analysis of algorithms, and coding in a
high-level languege; program structures, correctness, verifica high-level languege; program structures, correctness, verifica-
tion, testing, modification, maintenance, and documentation tion, testing, modification, maintenance, and documentation
PREREQUISITES: COMP 1900, MATH 1321 . COREQUISITE MATH 2701.
1203. Asaembly Lenguage Programming. (3). (MATH
4711). Computer machinelanguage: opcodes, addressing modes, arithmetic and logic, program control, interrupts symbolic coding end assembly systems: labels, mnemonics, expressions, assembler directives, assembly process; program design, coding, testing, tracing, and debugging; advanced loeding, and linking, macro instructions. PREREQUISITE: OMP 1900.
1204. Computer Organization. (3). 8inary signals, combinational and sequential logic networks; computer structure, memory, control, processing, and I/O units; bus-structured systems, fetch-execute cycle, timing, principal instruction types and execution, addressing and accessing techniques interrupts; standard communication codes, parity, encoders
decoders, and code conversion. PREREQUISITE: COMP 1900 decoders, and code conversis
COREQUISTIE: COMP 3230.
4001-6001. Computer Programming. (3). (MATH 4710) Algorithmic problem solving, formalization of algorithms stepwise refinement; the BASİC and FORTRAN programming languages: constents, variables, data types, arithmetic ex-
pressions, assignment statements, logicel expressions, branching, iteration, subprograms and parameters, I/O, string manipulation, programming style. NOTE: Computer Science mejors may not use COMP 4001 to fulfill degree requirements PREREQUISITE: MATH 1211
4002-6002. Accalerated Computer Programming. (3). Principles of computer programming style, expression, and documentatioon: design specifications, algorithmic problemsolving, stepwise refinement, storage variables and structures, high-level programming language: data typing, standard pro-high-level programming language: data typing, standard pro-
cedures and functions, subprograms and parameters, control cedures and functions, subprograms and parameters, contro
structures, end I/O, progrem structures, correctness, verificastructures, end / O, progrem structures, correctness, verifica-
tion, testing, modificetion, maintenance. NOTE: Computer Science majors may not use COMP 4002 to fultill degree Science majors may not use COMP 4002 to fulfill degree
requirements. Credit for either COMP 1900 or COMP. 2010 requirements. Credit for either COMP 1900 or COMP. 2010
precludes credit for COMP 4002. PREREQUISITE: MATH preclu
1205. 

4003-6003. Computer Organization and Assembly Language Programming. (3). Binary signals, combinatorial and sequential logic networks; computer structure, memory control, processing, end 1/O units; instruuction types and execution. Computer machine language: symbolic coding and assembly systems: design, coding, testing, tracing, and debugging. NOTE: Computer Science majors may not use COMP 4003 to fulfill degree requirements. Credit for either COMP
3230 or COMP 3420 precludes credit for COMP 4003 . 3230 or COMP 3420 precl
PREREQUISITE: COMP 4002 .
4040-6040. Programming Languages. (3). (MATH 4769 ) Comparative features, syntax, and applicability of high-level programming lengueges such as FORTRAN, COBOL, PASCAL, structures, control structures end dataflow, procedures recursion, runtime environment, string manipulation, list processing, erray processing, documentation, progremming processing, erray processing, docu
style. PREREQUISITE: COMP 2010.
4041-6041. Introduction to Compilers. (3). Finite state recognizers, lexicel scenners, symbol tables, context-free langueges and pushdown eutomata, context-free parsing SLR(K); languege trenslation, generation and improvement of LR(K); languege trenslation, generation and improvement of butes, syntex-directed translationschema. PREREQUISITES butes, syntax-directed tra.
COMP 3230, 4040, 4150.
4081-6081. Softwere Development. (3-6). Program design methodologies: formel methods, dateflow diagrems, strength and coupling measures; progremmer teams, orgenizetion, end menegement, scheduling end estimating, walk-throughs, progrem libraries end documentetion; organizetion, management end development of a lerge-scale softwere project. Mey be repeeted for a
COMP $4040,4150$.

4150-6150. Informetion Structure. (3). (MATH 4765) Computer data structures including stacks, queues, lists, arrays, trees, and graphs; implementation in computer memory using sequential and linked storage; basic algorithms over data structures; hash tables, sorting, searching, and merging techniques; dynamic storage allocation; coding of data struc-
ture algorithms. PREREQUISITES COMP 2010. 4160-6160. File Processing. (3). Concepts of record, file, paging, blocking. compaction, database; sequential bulk storage devices. external sort/merge algorithms, algorithms for updating sequential files, linked lists, file-oriented tree structures, traversing and balancing trees, network concepts; random access bulk storage devices. algorithms and storage of inverted files, multilists, indexed sequential, and hierarchical structures, file I/Q. PREREOUISITE: COMP 4150 .
4242-6242. Introduction to Computer Graphics. (3). Characteristics of graphics $1 / Q$ devices: 2 D pictures, scaling, translation, rotation, and windowing. drawing histograms, simple maps. block diagrams. and flowcharts; curved lines.
precision, quantization, and interpolation, plotting equations: 3D pictures, scaling. translation, rotation, and projections hidden line problem. non-Euclidean geometry, animation. hidden line problem. non-Euc
PREREQUISITES: COMP 3420.
4270-6270. Introduction to Qperating Systems. (3). Hierarchy of storage devices, $1 / O$ buffering, interrupts, channels; multiprogramming, processor and job scheduling, memory management: paging, segmentation, and virtual memory; management of asynchronous processes: interrupt procedure calls, process stateword and automatic switch instructions, Semaphores, concurrency: security and recovery procedures. PREREQUISITES: COMP 3230, 3420, 4040, 4150.
4601-6601. Introduction to Automata. (3). Formal Ianguages, finite automata and regular expressions, regular set theory, finite automatonminımization; context-free grammars, ambiguity. Chomsky and Greiback normal forms, pushdown tary recursive function theory; the Chomsky hierarchy of languages. PREREQUISITE: COMP 2010.
4715-6715. Artificiel Intelligence. (3). (MATH 4715) Selforganizing systems. information theory, rational decisionmaking, pattern recognition, parametric and non-parametric training methods for developing pattern classifiers; problem solving; heuristic programming and problem reduction search
methods. PREREQUISITE: COMP 2010 . 4901-6901. Topics in Computer Scienca. (1-3). (MATH 47911 Directed individual study of selected areas of computer science. May be repeated by per mission for a maximum of 6 hours. PREREQUISITE: permission of instructor.

## E280 NUCLEAR POWER OPERATIONS (MATH)

1200. Nuclear Reactor Mathsmatics. (3). Review of number systems; topics in algebra including solving first degree equations, factoring, logarithms, and exponents; trigonometric functions and their graphs; graphs and variation; topics in
elementary probability; descriptive statistics. 1300. Calculus for Nuclear Power Applications 1. (4). Trigonometric functions; identities and equations; laws of sines and cosines; conic sections with applications; function types; nature of the derivative; differentiation; applications of the derivative. PREREQUISITE: MATH 1200 . NOTE: This course was created for and limited to students in the Nuclear Studies Program. This course is not applicable toward a major or minor in Mathematical Sciences.
1201. Calculus for Nuclear Power Applications 11. (4). The indefinite integral; the definite integral; applications of the definite integral; solutions of first and second order differential equations; applications of differential equations; LaPlace
transforms. PREREQUISITE: MATH 1300 . NOTE: This course was created for and limited to students in the Nuclear Studies Program. This course is not applicable toward a major or minor in Mathematical Sciences.

## PHILOSOPHY

## ASSOCIATE PROFESSOR

TERENCE E. HORGAN, Chairman
Room 321, Clement Humanites Building
Either PHIL 1111 or PHIL 1611 may ba takan first.

## E330 PHILOSOPHY (PHIL)

1111. Introduction to Philosophy. (3). Introduction to philosophy through problems arising from man's reflection on classical and contemporary sources. 1611. Elementary Logic. (3). Introduction to formal and informal reasoning that emphasizes logic as practical method for problem solving. PREREQUISITE: Two units of high school algebra or one unit algebra and one unit geometry or MATH
1100 . 1100.
1112. Foundetions of Wastarn Philosophy: Clessical Period.
(3). Introduction to history of philososhy from 7th century B C. 13). Introduction to history of philosophy from 7th century B. C. through early Middle Ages structured around major themes that shaped classical period: attention to cultural and historical settings in which they arose and to which they contributed
Readings from philosophical and nonphilosophical sources.
1113. Foundations of Wastern Philosophy: Modarn Period. 13). Introduction to history of philosophy from late Middle Ages
through 19 th century structured around major themes that through 19th century structured around major themes that shaped the modern period; attention to cultural and historical setting in which they arose and to which they contributed. Readings from philosophical and nonphilosophical sources.
NQTE: While this is a continuation of PHIL 3001, it may be taken separately.
3402, Americen Philosophy. (3). Development of philosophy in America.
1114. Contemporary Morel Problems. (3). Such important contemporary moral issues as pornography and obscenity, capital punishment, abortion, human rights, "reverse discrimination, and civil disobedience. Underlying philosophical ideas
for each issue considered and discussed. 3451. Existentialism. (3). Historical and comparative study of different existentialist writers and their relation to literature. religion, and psychology. Readings from Kierkegaard, Nietzsche, Jaspers, Heidegger, Sartre, and Marcel.
1115. Ethics. (3). Critical analysis of classical ethical theories and their application to problems of individual and society. instructor.
351 2. Scienca, Technology and Human Velues. (3). Ethical problems growing out of development of modern science and echnology; of such issues as relation of science to society. dehumanization of individual, impact of technology on environment, modern
1116. Biomedical Ethics. (3). Discussion of ethical problems raised by contemporary medical practices and biological innovations from standpoint of contemporary ethical theories including abortion, euthanasia, behavior modification, human experimentation and genetic engineering
1117. Intermediete Logic. (3). Symbolic logic, including propositional calculus, lower functional calculus, and related 3661. The Developmant of Scientific Thought. (3). Historical introduction to science and scientific thinking; with selected readings from both ancient and modern scientists and philosophers of science. PREREQUISITE: one course in philosophy or major in natural or mathematical sciences
1118. Philosophy of Science. (3). Basic features of science. Detailed analysis of problems of scientific procedure, theory construction, and verification both in physical and social
sciences. PREREQUISITE:PHIL 1611 or 3661 or permission of instructor
1119. God and Man. (3). Major religious movements of Western world with regard to their origin, doctrines and philosophical significance. Attention to contrasting concep-
tions of natural and supernatural and role of religion in man's tions of natural and supernatural and role
understanding of himself and his society.
1120. Philosophy of Raligion. (3). Philosophical issues raised by religious experience including classical and contemporary arguments for and against existence of God, meaningtulness of religious language, and concepts of faith, ofil and imm
1121. Oriental Philosophy. (3). Philosophies of India, China, and Japan, with readings from primary sources of Hinduism Jainism. Buddhism. Confucianism, Taoism, and Shintoism.
1122. Philosophy in Literatura. (3). Expression of philosophical ideas in literature. Readings from philosophers, playwrights, novelists and poets.
1123. Philosophy Honors Seminer. (3). Qpen to all students in the Honors Program and recommended for those students working towards Honors in phlosophy. Specific content will vary each time course is offered. PREREQUISITE: Admission to Honors Program and one course in philosophy
4211-6211. History of Ancient Philosophy. (3). (3211). Selected readings from primary sources, supplemented by commentary from antiquity and modernscholarship, including Pre-Socratics. Plato. Aristotle, and Hellenistic period. PRE-
REQUISITE: PHIL 3001 or permission of instructor.
4311-6311. History of Modern Philosophy. (3). (3311). Critical survey of major philosophers of 17 th and 18 th century with special attention to metaphysical and epistemologica issues that divided Rationalism and Empiricism. Readings Kant. PREREQUISITE: PHIL 3002 or permission of instructor.
4372-6372. Kant. (3). Intensive study of major philosophical works of Immanuel Kant; emphasis on The Critique of Pure Reeson and on relation between Kant's critical philosophy and his ethics, aesthetics, and philosophy of religion. PREREQUISITE: PHIL 3002 or 4311 or permission of instructor.
4422-6422. Recent Anglo Americen Philosophy. (3). Major developments in philosophy in England and United States from 1900 to present; reading from such philosophers as Russell, Moore, Ayer, Wittgenstein, James, Dewey, Lewis, Quine and other contemporary authors. PR
3002 or 4311 or permission of instructor.
4440-6440. Philosophy of tha Nineteanth Century. (3) (3372). Extensive reading in representative 19th century philosophers from Fichte to Nietzsche; attention to German Idealism (especially Hegel) and reaction against it (left and right wing Hegelianısm, Marx, Kierkegaard, Nietzsche) as well
as utlitarıanism, Darwinism, and rise of positivism. PREas utlititarIanism, Darwinism, and rise of positivism. PRE-
REQUISITE: PHIL 3002 or 4311 or permission of instructor.
4441-6441. Recent Continantal Philosophy. (3). Major figures in 20 th Century European Thought. Such movements as phenomenology, existentialism, structuralism and her-4513-6513. Business and Professional Ethics. (3). Practices and ethics of individuals in business, law, government, social work, and other professions from the standpoint of contemporary ethical theory.
4531-6631. Philosophy of Law. (3). Introduction to theories of legal reasoning and basic principles of jurisprudence. For pre-law students and others pursuing law related careers Topics include concept of law, legal realism, Stara dacisis, one course in philosophy or permission of instructor.
4561-6661. Social and Political Phllosophy. (3). (3351) Major philosophical theories of man and the state; emphesis on concepts of society, culture, institutions, government, lew. power, authority, rights, and obligation. Selected readings.
PREREQUISITE: one course in philosophy or permission of instructor.

4662-6662. Marx. (3). Critical study of philosophy of Karl Marx, including the Manifesto, Capitel and subsequent philosophical and historical developments.
4632-6632. Advanced Logic. (3). Nature of axiomatuc systems, techniques of formalization, and logical foundations of mathematics. PREREQUISITE: PHIL 3621 or permission of instructor.
4642.6642. Philosophy of Psychology. (3). Examination of philosophical issues in the foundations of behavioral sciences. such as, free will and determinism, the use of mental concepts in the behavioral sciences and explanation in behavioral and natural sciences. PREREQUISITE: one course in philosophy or psychology or permission of instructor
4761-6761. Tha Philosophy of Art. (3). (3761). Role of philosophical ideas in artistic creation and experience and their expression in painting. sculpture, music, and other art
forms. PREREQUISITE: PHIL 1111 or permission of instructor. 4801-6801. Systematic Topics in Philosophy. (3). Epistemology, metaphysics, philosophy of language, philosophy of mind, logical theory, and axiology. Area to be covered appears in Schedule of Clesses semester it is taught. May be repeated for maximum of 15 hours credit without changing an earlier
grade if different areas are treated. PREREQUISITE: two grade if different areas are treated. PREREQUISITE: two courses in philosophy or permission of instructor
4891. Sanior Honors Thasis. (3). Directed reading and research culminating in a Senior Thesis Thesis topic to be senors students in philosophy. May be repeated in successive semesters for up to 6 hours credit.

## PHYSICS <br> ASSOCIATE PROFESSOR <br> DONALD R. FRANCESCHETTI, Chairman

## Room 216, Manning Hall

Physics 1111, 1112. 1811 and 1812 are recommended for students withno previous beckground in physics. Each may be
teken independently of he others. Physics 2111 and 2112 teken independently of the others. Physics 2111 and 2112
require knowledge of trigonometry (MATH 1212 or equivalent). require knowledge of trigonometry (MATH 1212 or equivalent).
Physics 2511 and 2512 require knowledge of celculus (MATH 1321 or equivelent).
Physics 2511 and 2512 ere required of all students in engineering curricule. strongly recommended for ellmejors in ohysics, chemistry or methemetics, end recommended
majors in biology or geology. Students preparing for medicel, dentel, or phermecy school, and students prepering to teach science in secondary school must complete either Physics school or stete teacher certification requirements. Physics 2111 and 2112 are required for mejors in Engineering Technology

## E350 PHYSICS (PHYS)

1111. Foundations of Physics. (3). Nature of physics, laws of motion, introduction to heat and sound. Two lecture, two laboretory hours per week Credit will not epply toward mejor
or minor in physics, chemistry. or physicel science, nor will it or misfor any physt ofs, science requirements in pre-professional
setisfy setisfy an
curricula.
1112. Foundations of Physics. (3). Introduction to electricity, magnetism, light and atomic structure. Two lecture, wo leboretory hours per week. Credit will not epply to major or
minor in physics, chemistry or physical science. nor will it minor in physics, chemistry or physical science. nor will it
setisfy eny pert of science requirement in pre-professional curricule.
1113. Genaral Astronomy. (3). Practical astronomy and solar system; Includes motions of earth and moon, apparent motions of stars and planers. eclipses, time and calendar, periods at night. Two lecture, two /eboratory hours per week. 1812. Genaral Astronomy. (3). Survey of stellar and galactic astronomy: Includes stellar distances and properties, interstellar matter, multiple stars, clusters, milky way and other galaxies. Occasional observation periods at night. Two lecture, two laboretory hours per week.
1114. General Physics. (4). Mechanics, heat, and sound Three lecture, two leboretory hours per week. PREREQUISITE: MATH 1212.
1115. General Physics. (4). Continuation of PHYS 2111; includes magnetism, electricity, light, and modern physics
Three/ecture, two/aboratory hours per week PREREQUISITE: PHYS 2111.
1116. Physics for Science end Engineering. (4). Treatment of mechanics, heat and sound, using methods of calculus. Threa/ecture, two/eboretory hours per week PREREQUISITE: MATH 1321
1117. Physics for Science end Enginaering. (4). Continuation of PHYS 2511 . Treatment of electromagnetism, optics, atomic and nuclear physics, using methods of calculus. Three
lacturg, twolaboratory hours per week. PREREQUISITE: PHYS 2511.
1118. Spacial Topics in Applied Physics. (3). Applied areas of physics, including optics. electronics, acoustics, end radiation. Experiments and projects of special interest to student
Three fecture hours or the equivalant feboratory hours per waek.
1119. Introduction to Modern Physics. (3). Principles of relativity, quantum mechanics and atomic physics; selected topics in solid stete, nuclear, and molecular physics
lecture hours per weak. PREREQUISITE: PHYS 2512
1120. Theoretical Physics. (3). (4810). Special mathematical techniques in solution of physical problems. Emphasis on vector celculus, boundary value problems, eigenvalue problems, and Fourier series. Three lecture hours per week.
PREREQUISITE: PHYS 2512.
1121. Biophysics. (3). Selectad topics from biophysics; with emphasis on understanding of basic physical principles and their relation to biology and medicina. Three lecture hours or the equivalent laboratory hours per week.
1122. Mechenics. (3). Advanced classical mechanics; includes statistics. dynamics of particles, rigid bodies, fluid flow, work, energy. momentum, force fields, and harmonic motion. Three lecture hours per week. PREREQUISITE: PHYS 2512,
MATH 3391. MAT
1123. Mechanics. (3). Continuation of PHYS 3111. Three lecture hours per week. PREREQUISITE: PHYS 3111
3211 . Electricity and Magnetism. (3). Electromagnetic fields and waves. including such topics as dielectrics, induced Maxwell's equations, and reflection and refraction. Three lecture hours per week. PREREQUISITE. PHYS 2512 , MATH 3391.
1124. Electricity end Magnetism. (3). Contınuation of PHYS 3211. Three lecture hours per week. PREREQUISITE: PHYS 3610. Elactronics. (4). Theory and application of electronic devices; emphasis on scientific instrumentation. Laboratory oriented course including basic semiconductors, integrated circuits, and microprocessors. Three lecture. three laboratory hours per
equivalent
3610 . Experimental Techniques. (1). Introduction to independent experimentation including shop practices, glass pendent experimentation including shop practices, glass
blowing, and preparation of experimental data for computers. blowing, and preparation of experimental data for computers.
Some experiments of traditional nature related to physics
courses. Three faboratory hours per week. PREREQUISITE: courses. Thr
PHYS 2512.
1125. Experimental Techniques. (1). Continuation of PHYS 3610. Three laboratory hours per week
1126. Special Topics in Physics. (3). Selected topics of current interest in physics not otherwise included in the curriculum. Three lecture hours or equivalent fabora
1127. Applied Rediation Physics. (3). Applied radiation and radioactivity Includes types of radiation, radiation measurement, interactıon with matter, and bıological effects. Radiation safety aspects emphasized Three lecrure hours per
PREREQUISITE: PHYS 2112 or 2512 and MATH 1321
1128. Rediation Physics Laboratory. (3). Radiation and radioactivity. Experiments emphasize measurement and characterization of radiation and radioactive materials. Four laboratory hours per week. PREREQUISITE: PHYS 4021.
1129. Medical Physics. (3). Physics of sensory, respiratory, and circulatory systems; physical basis of radology and nuclear medicine, Three lecture hours per week. PREREQUI-
SITE: PHYS 2112 or 2512, and college level course in physiology
4051-6051. Astrophysics. (3). Application of radiation laws to interpretation of stellar structure. Introduction to radiative transfer in atmospheres. Spectral and luminosity classification of stars. Stellar populations and evolution. Three lecture hours
per week PREREQUISITE: PHYS 2512, PHYS 3010 is per week PREREQUISITE: PHYS 2512, PHYS 3010 is
recommended
4110-6110. Nuclear Physics. (3). Properties of atomic nuclei radıactive transıtions, alpha, beta. and gamma decay. Binding energy. nuclear forces and nuclear models. Three lecture hours per week. PREREQUISITE: PHYS 2512, PHYS 3010 is recommended.
4211-6211. Optics. (3). Brief review of geometrical optics; concentration on wave optics. Includes polarization phenomena, interference, diffraction, coherence, holography, and
scattering. Three lecture hours per week. PREREQUISITE: scattering. Three lecture
PHYS 3211 or equivalent
$4410-6410$. Introduction to Quantum Theory. (3). Experimental basis of quantum theory, development of Schrodinger equation and its solution of simple systems; selected applications in atomic and molecular structure. Three fecture hours per week. PREREQUISITE: PHYS 3111,3211 or equivalent.
4510-6510. Thermodynamics. (3). Mathematical treatment of thermodynamics, including such topics as work, energy, enthalpy, entropy, reversible and irreversible processes, equilibria, specific heats, and phase transitions. Three lectur
$4610-6610$. Solid State Physics. (3). Such topics as lattic
$4610-6610$. Solid State Physics. (3). Such topics as lattice vibr ations, specific heats, electrical and thermal conductors in
solids, magnetism. Three lecture hours per week. PREREQUIsolids, magnetism. Three lecture hours per week. PREREQUISITE: PHYS 3010 or equivalent.
1130. Spectroscopy. (3). Basic theory and experimental techniques presented in survey of various fields of spectroscopy. Includad are considerations of infrared, ultraviolet, microwave, Raman, and magnetic resonance spectroscopy. Three lecture hours per week.
1131. Seminar. (1). Special projects, reports and invastigation of current literature and research. May be repeatad for
maximum of 2 semester hours credit. PREREQUISITE: per-
mission of instructor mission of instructor
1132. Research in Physics. (1-4). Collaboration with faculty member on problem of mutual interest. Two to eight laboratory or equivalent hours per week. May ba repeated for maximum
of four hours credit. PREREQUISITE: PHYS 3010 and of four hours credit. PREREQUISITE: PHYS 3010 and
permission of instructor. Students expected to complete permission of instructor. Students expected to complete
prospectus in collaboration with faculty member before prospectus
registering.

## E350 NUCLEAR POWER OPERATIONS (PHYS)

The courses listed balow are designed for, and normally restricted to. students enrolled in special programs offered by the Center for Nuclear Studies. Other students may enroll in these courses only with permission of the Chairman of the Physics Department. Upper divisioncourses in this group may ee applied towards the physics major or minor with tha
 fluids. PREREQUISITE: MATH 1200 or equivalent.
2312. General Physics for Technicians 11. (3). Heat and thermodynamics. PREREQUISITE: PHYS 2311.
2313. General Physics for Technicians III. (3). Electricity PREREQUISITE: PHYS 2311
3700. Thermodynamics for Nuclear Power Applications. (3). Thermodynamic quantites and units. Reversible and irreversibla processas. Phase equilibria Heat transfer and
mass flow. Heat engines. mass flow. Heat engines
3701. Physics of Fluids. (3). Thermodynamic relatıonships describing behavior and flow of fluids under single- and twophase conditions. Application to nuclear power plants. PREREQUISITE: MATH 2300 or equivalent.
3702. Nuclear Heat Mechanics. (3). Heat transfer mechanisms and applications to nuclear power plant reactor cores.
heat exchangers, steam generators, condensors, etc. PRE. heat exchangers, steam generators. co
REQUISITE: MATH 2300 or equivalent.
3703. Stress Mechanics. (3). Failure modes of matarials including metals, ceramics, and plastics. Application to nuclear power plant reactor cores, heat exchangers, steamgenerators, condensers. etc. PREREQUISITE: MATH 2300 or equivalent.
3710. Nuclear Physics for Reactor Applications. (3). Atomic and nuclaar structure, radioactive decay mechanisms, particle scattering, fission, fusion.
4220. Reactor Physics. (4). Theory and operation of nuclear reactors as energy source for large scale power operation, including fundamental concepts of physics applied to the production and control of nuclear chain reactıons. PREREQUISITE:
PHYS 2312 and 3710 . PHYS 2312 and 3710.
4221. Advanced Reactor Physics. (3). Continuation of
reactor physics; emphasis on reactor design parameters. PREREQUISITE: MATH 2300 or equivalent, PHYS 4220.

## POLITICAL SCIENCE <br> ASSOCIATE PROFESSOR DAVID N. COX, Chairman

Room 427. Clement Humanities Building
The political science areas of study are indicated by the second digit of the course number: General 1, American Government and Public Law 2, Comparative Government 3. Political Theory
4, International Relations 5, Public Administration 6, and Special 7 and $B$.
The prerequisite for all $\mathbf{4 0 0 0}$ level courses is either junior standing or the permission of the instructor.
The use of a computer for instruction may be a component of courses offered in political science. However, no computer competence will be assumed unless specified in the course description.

## E370 POLITICAL SCIENCE (POLS)

1100. American Government. (3). (2211). Origins of our system of government, framing of Constitution, principles underlying constttutional government. citizenship, civil rights. political institutions, national executive, congressional organization and functions, and judicial process.
1101. Basic Issues of Politics. (3). How people distribute power, confer authority. resolve conflict, and pursue goals within a political system
1102. Comparative Politics. (3). Introduction to comparative study of politics with application to selected countries. 2501. International Politics. (3). Relationships among nationtates, ranging from war to cooperation, emphasis on both domestic and external determinants of state action.
1103. Politicel Inquiry. (3). Research process in political science; emphasizes skills common to all subfields of political science-familiarity with sources of data and docliments, research design and general analytic skills
1104. Religion and Politics. (3). Survey of role of religion and religious belief in politics. Emphasizes role of religious institutions in international arena and national politics and effects of religion on behavior and political beliefs
1105. State and Locel Governments. (3). Role of state governments in Federal System, political institutions, elec-
tions; organization, functions, and problems of state governtions; organization, functions, and problems
ment; emphasis on Tennessee government.
1106. Introduction to the Study of Public Policy. (3). Public policy formulation process and some of the major substantive areas of policy concern in America. Emphasis on framework for identifying and analyzing substance of public problems, policy making, and policy administration.
1107. Political Perties. (3). Political party as process of government; emphasis on party organization, activities, nomparty system. 3224. Urban Politics. (3). Functions and role of government
in urban America in context of urban politics and social, in urban America in context of urban politics and social, economic, and governmental problems of cities and suburbs
3302 . Western European Government and Politics. (3). Comparative study of selected political systems of Western European States.
1108. Latin American Government and Politics. (3). Forms of organization, functions and operations of government in Latin America. Emphasis on development of political institutions and prasent day trends.
1109. Government end Politics of South Asia. (3). Political Asian states.
1110. Government and Politics of North Africa and Middle East. (3). Analysis of organization and functions of governexamination of origin and development of Arab-Israeli conflict.
1111. Legal/Political Thought: Clessical. (3). Question of justice and its relation to law and politics. Emphasizes confrontation between classical and modern views
1112. Legal/Politicel Thought: Modern. (3). Question of ustice and its relation to law and politics. Emphasize confrontation between early and recent modernity.
1113. Introduction to Law and Jurisprudence. (3). Sources, functions, and processes of law.
1114. Internetional Organization. (3). Origins, structure functions, and evolution of selected international organiza ions. The United Nations and/or regional and functional organizations serve as basic references
1115. American Foreign Policy Process. (3). Amerıcan oreign policy, emphasis on factors involved in daveloping and implementing policy.
1116. Public Administration. (3). Concapts and practices of organization and management in executive departments, national, state, and local; analysis of bureaucracy, administrative theory. budgeting. personnel, and administrative leadership.
1117. Personnel Management for the Fire Service. (3). Personnel practices and management procedures. Included are manpower planning, labor relations, recruitment, selec ion, politics, and management. PREREQUISITE admission restricted to students seeking BPS degree in Fire Administration or Fire Prevention Technology
3611 . Disastar and Fire Defense Planning. (3). Concepts and principles of community risk assessment. regional and co operative procedures and plans, relationship of structural climatic, and topographical variables to group fires, con flagrations, and natural disasters. pre and post occurence factors, communications, planning. organizing, coordination command and logistics. PREREQUISITE: admission restrictad to students seeking BPS degree in Fire Administration or Fira Prevention Technology
3612 . Fire Prevention Organization and Management. (3). and agencies involved with fire prevention. Includes public and private fire prevention functions, licenses, permits, zoning, egal aspects, inspection, investigations, planning, arson and incendiary analysis. PREREQUISITE: admission restricted to students seeking BPS degree in Fire Administration or Fire Prevention Technology.
1118. Advanced Fire Administration. (3). Overview of organization and management in modern fire service. Includes management of equipment and personnel, fire departmen unctions, planning, resource development, labor relations degree in Fire Administration or Fire Prevention Technology.
3614 . Political and Legal Foundations of Fire Protection 3). Legal basis for police power of government related to public safety. Legal limitations and responsibility. Liability of fire prevention organizations and personnel. Review of judicial decisions. Implications of product liability cases in fire prevention. PREREQUISITE: admission restricted to students seeking BPS degree in Fire Administration or Fire Prevention Technology.
1119. The Community and The Fire Threet. (3). The sociological, economic and political characteristics of communities and their influence on the fire problem. How to study community profiles and structures with consideration of the economic, geographic, and sociological variables of the fire hreat. Examination of functional basis of the community diverse social roles of community agencies, and study of fire services as a complex organization in community. PREREQUIFire Administration or Fire Prevention Technology
4101-6101. Political Statistics. (3). Introduction to analysis cience and public administration, including fields of political and nonparametric echniques. Particular attention to alternative measures of association and significance, regression factor analysis, path analysis. and causal meeting
4102-6102. Political Behevior. (3). Introduction to contribuions of behavioral sciences to understanding of political system. Political behavior as manıfested in formatıon of
attitudes, public opinıon, group organization, and political power
4211-6211. Constitutional Law: Netional Powers. (3). division of power between nation and states; emphasis on role of Supreme Court as arbiter in constitutional system.
4212-6212. Constitutional Law: Civil Liberties. (3). Judicial interpretation of political and civil rights, emphasis on period since 1945.
4213-6213. Public Policy. (3). Selected public policy issues and politics in policy makıng process
4214-6214. The Presidency and Executive Decisionmaking (3). Presidential behavior as embodiment of personal, socia and institutional forces. Attention to growth of Presidency decision-making process, limitations on presidential power and role of Chief Executive in a democratic system.
4216-6215. Constitutional Policies and The Judicial Process. (3). Limits of political resources and power of judiciary Court able to obtain compliance with its decisions on highly Court able to obtain compliance with its decisıons on highly in conflict with other branches of the national government, the state governments, and public opinion.
4216-6216. Interest Groups in the American Political System. (3). Role and impact of selected interest groups
within American political system. Group theory, tactics, and within American political system. Group theory, tactics, and
group relationships with various governmental institutions.
4217-6217. The Legislative Process. (3). Origins, organiza fion, functions, and activitıes of modern legislature; making forming people.

4218-6218. Public Opinion and Politics. (3). Formation measurement and content of public opinion about politica issues. Includes a public opinion poll of local community
4221-6221. Urban Administration. (3). Politics, administra tion, and public policy in urban context. Focus on administrative aspects of selected governmental policy-making processes interrelationships of governments at various levels; urban challenges facing modern public administrators
4224-5224. Urben Problems. (3). Selected problems in urban administration, politics, and policies.
4225-5225. The Courts and Urban Policy. (3). Courts as policy-makers in urban realm. How, why, and to what exten courts have become major participants in shaping of urban policies; instit

4230-5230. Legislative Internship. (3-12). Supervised in ernship working with Tennessee General Assembly or other legislative bodies on current legislative programs. Seminar sessions to discuss and analyze problems with which interns working. May be repeated for total of 12 credits. PREREQUISITE: permission of department.
4231. Administrative Internship. (3-12). Supervised internship working with administrative branches of national, state, or local governments. Seminar sessions to discuss and analyze problems with which interns are working. May be repeated for
total of 12 credits . PREREQUISITE: per mission of department. 4305-5305. Soviet Government and Politics. (3). Organiation and functions of authoritarian state; emphasis on role of Communist Party and ideology
4307-5307. Government and Politics of Communist Chine. (3). Institutions of government, political process, political elites, political groups and political socialization in Communist China.
4309-5309. Comparative Political Parties. (3). Political parties and party systems in selected countries.
431 3-6313. Comparative Public Policy. (3). For mation and implementation of major substantive areas of public policy in selected countries.
4399-5399. Research and Studies Abroad. (1-5). Supervised field research and studies in selected foreign countries. May be repeated up to six hours. PREREQUISITE: Permission of the department
4401-5401. Modern Political Ideologies. (3). Major ideologies affecting modern politics. Includes ideologies of democracy, communism, and facism as well as capitalism and ing or "third" and "fourth world" nations
4405-5405. American Political Thought. (3). Analysis of political thought in United States from colonial to present time; emphasis on relation between political thought and political institutions and practices.
4408-5408. Special Topics in Political Theory. (3). Specific issues in political theory. May be repeated for a maximum 6 hours credit.
4409-6409. Marxism and Politics. (3). Impact of Marxism on political ideas, practices and movements throughout the world.
4420-5420. Political Thought and the Classics: Ancient. (3). Close reading of classical ancient texts with view to their position in great tradition of political theory.
4421-6421. Political Thought and the Clessics: Modern. (3). Close reading of classical modern texts with view to their position in great tradition of political theory.
4501-5501. Contemporary Problems in Internetional Politics. (3). Studes or problems in area of world politics. May be repeated for maximum of 6 hours credi
4502-6502. Soviet Foreign Policy. (3). Basic concepts of Soviet foreign policy; development and techniques; present patterns of Soviet relatıons with key nations; major problems in future relationships.
4504-6504. Internetionel Lew. (3). Nature, scope, duties, rights, and evolutionary trends of international law.
4505-5505. Comparstive Communist Systems. (3). Crossnational comparison of adaption of ruling and non-ruling communist parties to different political environments.
4505-6506. Problems of Americen Foreign Policy. (3). Studies or problems of American foreign policy. May be repeated for a maximum 6 credit hours.
4508-6508. Theories end Concepts in Internetionel Politics. (3). Theoretical approaches to study of international politics. Attention to methodology, models, and international political simulation.
4509-6509. Comperative Foreign Policies. (3). Foreign policies of major actors (nation-states, groupings such as oilproducing nations of OPEC, and other entities) in world politics
4510-6510. Internetionel Political Economy. (3). Interdependency of political processes and economic processes at
the global level. PREREQUISITE: ECON 2110 or 2120 the global level. PREREQUISITE: ECON 2110 or 2120.
4602-5602. Public Finence Administration. (3). Detailed study of administrative and political problems of fiscal policy, budgetery process, and fiscal controls.
4603-6603. Public Personnel Administration. (3). Policies, methods and techniques utilized in public personnel administration. Attention to problems reflecting contemporary demands upon personnel organizations. Capacity to analyze problems, select most effective means of dealing with them, and plan appropriate courses of action through case example. 4604-5604. Problems of Public Administration. (3). Problems in public administration process; emphasis on contemporary developments
4605-6605. Progrem and Policy Evaluetion. (3). Models, thevories and techniques of program and policy evaluation in public edministration. Includes evaluation research design, data collection and analysis, disseminsetion of results, possible applicetions of eveluations to policy making and edministra-
tion, and organizetional end political contexts of evaluation.

4511-6511. Administrative Lew. (3). Role and nature of administrative law, including procedural requirements and udicial review of administrative actions and liability of overnment for torts and breach of contract
4515-5515. Comperative Administration. (3). Investigation of administrative structures, functions, and controls in selected developed and developing nations.
4525-5525. Intergovernmental Relations in the United Stetes. (3). Interdependencies and relations between governmental structures and organizations in American system emphasis on problems of conflict and coordination.
4701. Senior Seminar in Political Science. (3). Review of professional literature generally or in particular area of political science combined with significant research on special political
problems. PREREQUISITES. senior standing and political problems. PRE
science major.
4702. Independent Study. (1-3). Independent investigation fresearch problem or directed reading in selected area of political science under tutorial supervision of member of political science faculty. PREREQUISITE: permission of chairman.
4705-5705. Speciel Topics in Public Issues. (3-5). Topics of current significance in public issues. May be repeated for maximum of 6 hours credit.
4801-5801. Science and Politics. (3). Multiple interactions between the political systems and scientific and/or tech nological developments. Emphasis on complexities surround ing relationship between public policy and science, as exemplified in government decisions and actions regarding
support, use and control of scientific research and applied support, use

## PSYCHOLOGY

PROFESSOR FRANK C. LEEMING,
Chairman
Room 202, Psychology Building

PSYC 1101 or 1102 is prerequisite for all other courses in the Department of Psychology: both 1101 and 1102 are equired of Psychology majors.

## E390 PSYCHOLOGY (PSYC)

1100. Psychological Principles and Personal Effectiveness. 3). For those planning to take only one psychology course Introduction to basic psychology in the context of personal adjustment. Emphasis on how psychological principles and data generate tactics for more effectively managing one's behavior and emotions in relation to commonly encountered situations such as work, school, family. marriage, etc.
1101. General Psychology I. (3). Introduction to social aspects of psychology as a science of behavior. Areas of study nclude personality, abnormal behavior, psychotherapy. social psychology psychology
1102. General Psychology II. (3). Introduction to the biological aspects of psychology as a science of behavior. Areas of study include learning, sensation and perception, physiological and comparative psychology, and psycho-pharmacology.
1103. Psychological Statistics. (3). Introduction to use of statistics in psychology, with emphasis on elementary theory of measurement and computation. Topics include measures of central tendency and variability, tests of significance, correlation procedures, and an introduction to multivariate analyses, analysis of variance, and nonparametric procedures.
1104. Introduction to Psychologicel Reseerch. (3). Survey of logical and methodological considerations common to al research and an overview of the range of observation,
measurement and laboratory procedures employed, and measurement and laboratory procedures employed, and presentations of their own research
faculty. COREQUISITE: PSYC 2301
1105. Psychology of Personality. (3). Introduction to development and functioning of normal person. Variety of represent ative theoreticalorientations examined; emphasis on psycho analytic theories and other 20th century theoretical viewpoints. 3102. Abnormel Psychology. (3). Basic concepts of psychopathology with emphasis on the development of behavior deviations, description of various neurotic and psychotic reactions, and an introduction to methods of psychotherapy 3103. Child Psychology. (3). Patterns of cognitive. inter personal, and behavioral development from birth through early adolescence. Psychological effects of genetic, organic early adolescence. Psychological effects of genetic
and environmental influences as the chid matures.
1106. Adult Psychology. (3). Patterns of cognitive, interper sonal and behavioral development from late adolescence to old age. The theoretical and empirical literature pertaining to such topics as marital and vocational choices, parenting. the midlife crises, and death.
1107. Social Psychology. (3). (3302). Analysis of the behavior and experience of individuals in group settings, examining such topics as leadership, social influence, and inter-group and intragroup relations.
1108. Child Psychopethology. (3). Introduction to major theoretical formulations of childhood disorders, including earning, developmental. psychoanalytic and family systems heories. Emphasis on basic research that contributes to understanding of difficulties such as learning disabilities, mental retardation,
1109. Speciel Topics in Personelity, Psychopathology end Development. (1-6). In depth coverage of topics not treated sufficiently in the other 31- series of courses. Particular opics each semester will be advertised in the department prior oregistration. May be repeated for maximum of 9 credit hours when the topic varies.
1110. Thinking and Cognitive Processes. (3). Analysis of the development and modification of thinking, reasoning, concep tualization, language processes in the individual.
1111. Sensation end Perception. (3). (4203) Major senses, methods used to study them, and application of this knowledge. Perceptual and related interpretive process that operate upon
sensory information and relationship of those processes to sensory information and
learning and motivation.
1112. Learning and Memory. (3). (4204). Survey and analysis of the basic processes involved in acquisition and retention of new behaviors and alteration of existing behaviors in animals and humans. Examination of some central theoretical concepts and issues in learning
1113. Physiological Psychology. (3). (4201). Survey of physiological processes underlying sensation, perception, behavior patterns, memory and other psychological functions.
1114. Animal 8ehavior. (3). (4202). Synthesis of comparative psychological and ethological approaches to study of animal behavior. Such topics as behavior genetics, species specific behaviors, behavior as a basis for phyletic classification, major behavioral dimensions related to phylogenesis, etc. 3399. Special Topics in Experimental Psychology. (1-5). Indepth coverage of topics not treated sufficiently in the other
31 - series of courses. The particular topics to be covered each semester will be advertisedh in the department prior to registration. May be repeated for maximum of 9 credit hours when topic varies.
1115. Psychologicel Principles in Law Enforcement. (3). Application of psychological principles to law enforcement Law enforcement both at the institutional level and at the level of the individual police officer dealing with the public.
1116. Psychological Testing. (3). (4301). Essentials of testing, emphasizing the concepts of reliability and validity; limitations of psychological tests; familiarization with standardized interests, aptitude, achievement, intelligence and personality tests: practical experience with some "paper-andpencil" group tests; questionnaire construction and administration. PREREQUISITES: PSYC 2301 and 3101.
1117. Introduction to Clinical Psychology. (3). (4302). Survey of history of clinical psychology: services provided by clinical psychologists; different strategies of diagnosis and therapy; ethical considerations of clinical psychologists. Introduction to interviewing techniques and practice in the use of these techniques. Field trips to institutions utilizing clinical psychologists.
1118. Introduction to 8ehavior Therapy. (3). (4303). Survey of behavior therapy techniques. including observational procedures, methods of remediation, data recording and report writing. PREREQUISITE: PSYC 3102.
1119. Theory and Research in Community Mental Health. (3). (4304). Community and preventive mental health movement in clinical psychology. Social-psychological models, critical evaluation of community mental health interventions, and review of environmental design practices and work with low socio-economic class groups. One-half the grade will be based upon mastery of theory and research presented in weekly class meeting of 75 minutes. The remainder of the grade will be determined by performance during 5 hours per week of supervised community research
1120. Human Sexuality. (3). (3105). A survey of existing knowledge of human sexual behavior, including physiological, anatomical, psychological and cultural components. Focuses primarily on normative sexual functioning; such topics as sexual deviation, sexual dysfunctions, and types of treatment are also considered. PREREQUISITES: PSYC 1101 and 1102.
1121. Alcohol, Drugs end Behevior. (3). Survey of major drugs of abuse, their mode of action, and their behavioral effects, both acute and chronic. Major theories of etiology and maintenance of drug abuse, and review of prominent strategies for prevention, intervention and treatment.
1122. Industriel end Orgenizationel Psychology. (3). (3301). Application of psychological concepts and methods to phenomena in industrial and organizational settings, with emphasis on personnel selection, classification and evaluetion, employee attltudes, morale and motivation, and psychological analysis of the condition of work.
1123. Speciel Topics in Applied Psychology. (1-5). In depth coverage of topics not treated sufficiently in the other 35series of courses. Particular topics each semester will be advertised in department prior to registration. Mey be repeated for maxımum of 9 credit hours when topic varies.
1124. History of Psychology. (3). Comprehensive survey and critical analysis of the philosophical and scientific antecedents of contemporary psychology. PREREQUISITE: 10 upper division hours in psychology.
1125. Special Problems in Psychology. (1-3). Student, under faculty supervision, may (a) read intensively in specialized area, (b) conduct psychological research and/or (c) obtain field experience in community institutions where psychological principles are applied. 4503 and 4504 may be taken for a combined total of 9 hours, no more than 6 of which may be with the same faculty member. PREREQUISITE: per mission of the department. (S/U)
1126. Directed Reseerch. (3). Majors receive first hand research experience under tutorship of individual feculty member. Students may work individually or in small groups depending upon the project. Projects conform to set of guidelines available from department. NOTE: PSYC 4503 end 4504 may be repeated for a combined total of up to 9 hours, 6 with any one faculty member. PREREQUISITE: permission of department. ( $\mathrm{S} / \mathrm{U}$ )

## SOCIOLOGY AND SOCIAL WORK

PROFESSOR CHARLOTTE WOLF, Chair
Room 231, Clement Humenities Building

Sociology 1111 is a prerequisite for all other courses in sociology and social work

## E410 SOCIOLOGY (SOCI)

1111. Introductory Sociology. (3). Relations among social values. social organizations, and social institutions. Processes such as change and conflict as well as institutions including family, economy, and education.
1112. Contemporary Social Problems. (3). Sociological approaches to understanding contemporary social problems; magnitude, causes, consequences, and possible solutions to various problems, such as poverty, racism, sexism, problems of aging, crime, and population
1113. Practitioner Perspectives on the Health Professions. (1). Social organizational aspacts of medical practitioners professional lives as presented by representatives of various medical fields. Designed only for students who heve chosen medical careers. No prerequisite.
1114. Social Statistics. (3). Application of basic statistical concepts and techniques to social analysis. Description of data for single variables and for relationships between two variables. Tests of significanca for relationships between two
variables involving sample data. Use of packaged statistical variables involving sample data. Use of packaged statis
computer programs for single and two variable analysis.
1115. Methods of Social Research. (3). Overview of process of social research; selection and formulation of problem, design of research, methods of investigation, analysis and interpretation of data, and report preparation. Emphasis on data collection techniques PREREOUISITE: SOCI 3311
1116. Social Inequality. (3). Unequal distribution of power, property, and prestige; how and why this inequality occurs; prop the resulting social strata such as "class" and "status group
1117. Sociology of the South. (3). Examination of southern institutions, organizations, and intergroup relations, the South, viewed as region, compared on bases of similarities and differences with other parts of U.S. Selected regional issues and problems assessed and research findings critically evaluated
1118. Sociel and Ethnic Minorities. (3). (Same as ANTH 3422). Comparative study of social and ethnic minorities in United States and elsewhere: with a focus on differences in cultural backgrounds, social relationships with larger society; social, educational, and legal problems; factors contributing to satisfactory and unsatisfactory adjustments of minorities.
1119. Sociology of Sex Roles. (3). Traditional conceptions of masculinity and femininity and modifications of these resulting from economic, demographic and cultural changes. Socialization for masculine and feminine roles and variations in these
roles throughout life cycle. Class, race, occupational and other roles throughout life cycle. Class, rac
institutional differences in sex roles.
1120. Sociology of Deviant 8 ehavior. (3). Problems in applying definitions of deviance in everyday life; theories about causes and consequences of deviance critically reviewed; types of deviance analyzed, ranging from interpersonal violence to various forms of sexual expression.
1121. Criminology. (3). Nature and significance of criminal behavior; statistics of criminal behavior and criminals; trends in social reactions to criminal behavior and criminals. Development and nature of theories of criminal behavior. Current
programs for treatment and prevention of criminal behavior.
1122. Populetion. (3). Population theories and policies; their definition and history. Trends in population growth; methods of population analysis, and trends in fertility and mortality. Emphasis on fertility, mortality, sex and age composition, and migration and their influences on population change. PREREQUISITE: SOCI 1111 or instructor's permission.
1123. Introduction to Sociel Psychology. (3). Basic theory and research dealing with study of human behavior in social situations; emphasis on communication processes, socializa-
tion, social roles, social self, and interaction in group contexts.
1124. Sociology of Formel Orgenizetions. (3). Analysis of bureaucratic organizations in modern society and effects on individual and group behavior; benefits of industrialtechnological society and costs of bureaucratization and centralization of organizational life; current issues concerning individual autonomy, organizational productivity, and control.
1125. Educetionel Sociology. (3). Sociological analysis of education and its functions; school and community relationships; problems of social change and educational adjustments
1126. Merriege end the Femily. (3). American family patterns, including mate-selection, man-woman relationships, maritel satisfaction, parent-child communication, divorce, alternative satisfaction, parent-child communication
lifestyles and other contemporary issues
1127. Industrial Sociology. (3). Social characteristics of business and industrial organizations; role of the consultant in business and industrial organizations; role of the consul
personnel organization and human reletions programs
1128. Sociology of Religion. (3). Role of religion in modern society; relationship between religion and other spheres of
life; sociological examination of cults, sects, churches, and life; sociological examination of cults, sects, churches, and religious movements; causes and consequences of religious beliefs and practices.
1129. Political Sociology. (3). Sociological examination of political institutions; cultural and social factors associated with political structure, political attitudes, and political be hevior: political decision-making as sociological process. comparative and methodological study of social movements and political parties
1130. Mexicen Society and Culture. (3). Mexico's social development, population, contemporary institutions and cultural patterns, the family, the community and urban society. minority group relations, and social problems.
1131. Social Change. (3). Sociological analysis of theory, nature, meaning, and consequences of social change.
1132. Rise of Sociological Theory. (3). Nature, grounds, and explanatory powers of various forms of sociological theory analysis of basis for scientific and philosophical assumptions and social and political contexts; major theorists including Durkheim, Marx, Weber, Simmel.
4211-6211. Contemporery Sociological Theory. (3). Major frameworks of 20 th century sociological thought, including theoretical schools of functionalism, exchange theory, critical theoretical schools of functionalism, exchange theory, critical and ethnomethodology; current social and political trends and issues.
4312-6312. Intermediate Social Statistics. (3). Multivariate analysis of social data. Use of computer programs for data management and statistical anelysis. PREREQUISITES: SOC 3311,3322 , or equivalents, or permission of the instructor.
1133. Field Problems in Social Research. (3). Application of sociological knowledge and methods to research projects in local community or region; development of individual projects with social and human services agencies and other community organizations
1134. Race Relations. (3). Exploration into patterns of dominance; specific focus on institutionalized racism as it affects American Blacks. Attention given to ways in which racial inequities reinforce the American stratification system
1135. Sociology of Poverty. (3). Distribution of poverty and affluence in contemporary and industrial society. Effects of poverty on individuals and society. Theories of poverty
1136. Bleck and White Women in the South. (3). How history of South and political-economic structure has shaped black and white women's work, family, community activities. and relationships; emphasis on collaboration and competition aspects. identity issues, and demographic characteristics focus on the Memphis area.
1137. Juvenile Delinquency. (3). Identification of patterns of juvenile delinquency, and exploration of alternative theoretic al approaches; historical development of concept of childhood and institution of juvenile justice.
4541-6541. Sociology of Aging. (3). Ageism in sociocultural contexts; current beliefs, values, and norms regarding aging structural location of aging in society, and implications o ageism in employment, poverty, private and institutional housing, crime, physical iliness and mental illness.
1138. Cities in Change. (3). Historical transformation of urban communities; emphasis on North American cities and contemporary ways in which cities shape lives through social, political and economic forces; rise and fall of industrial city, suburbanization, central city decay, urban fiscal crisis, urban power structure, neighborhoods; urbanization of the Third World
1139. Sociel Chenge in Memphis Metropoliten Region. (3). Theories of urbanization and urban change with emphasis on Memphis metropolitan region; analysis of how social relations, institutions, local communities, and social ecology have been transformed in response to broader currents of social, economic, and political change
1140. Sociology of Adolescence. (3). Social aspects of adolescence. Emphasis on socialization into youthhood, changing nature of adolescence in industrial societies, conflict of institutional demands with peer group membership, selfidentity problems, values of youth subcultures and contracultures.
4842-6842. Sociology of Occupetions end Professions. (3). Sociological analysis of division of labor, occupational groupings, career patterns, and professional associations in modern American society; meaning of work.
1141. Medicel Sociology. (3). Examination of human arrangements and their human legitimations within which variations in human biology are discovered, defined, diagnosed, described, and disposed of as "disease"
1142. Sociology of Mentel lliness. (3). Examinetion of human arrangements and their legitimations within which incomprehensible" behavior is discovered, defined, diagnosed, described, end disposed of as "mental illness"
1143. Special Topics in Sociology. (3). Special areas o sociology not otherwise included in the curriculum. NOTE Course may be repeated for a maximum of 6 hours credit
1144. Directed Individual Study. (1-6). Individually diracted advancedreading and/or research in special areas of interest NOTE: Course may be repeated for maximum of 6 hours credit PREREOUISITE: permission of department chairman.
1145. Senior Seminar in Sociology. (3). Current theoretical issues and research in sociology. Open to senior sociology issues and research in sociology. Open to senior sors
majors and to other advanced students by invitation.
1146. Seminar in Life Cycle Studies. (3). Analysis of socia institutions from life cycle perspective: social institutions studied from perspective of their specific function for and approprıateness to specific stages of life cycle development

## E470 SOCIAL WORK (SWRK)

2911. Sociel Response to Human Need. (3). Introduction to historical and contemporary issues related to American social welfare systems; analysis of impact on vulnerable populations value implications, change processes, and program compo nents
2912. Social Work: Profession and Prectice. (3). Overview of social work as profession, including introduction to its value base, knowlege base, and skill base; roles of social workers in social service agencies. Volunteer experience required.
2913. Human Development and Social Interaction. (3) Qverview of human development from birth through old age focus on interaction of biological, psychological, and socio cultural factors; major developmental theories. transitional phases, and variant lifestyles, relevance to social functioning and social work practice. PREREQUISITE: SWRK 2911 or 3901, or instructor's permission.
2914. Models of Social Intervention. 1. (3). Qverview of traditional social casework methodology; emphasis on theoretical approaches and schools of practice; beginning applicatıons of case study model. PREREQUISITE: SWRK 2911, 3901, 3902, or director's permission
2915. Models of Social Intervention II. (3). Continuation of SWRK 3903, with emphasis on application of theory through assessment, intervention planning, use of community resources, and functions of social workers. Extensive case analysis. PREREQUISITE: SWRK 3903
2916. Dynamics of Professional Interviewing. (3). Models techniques and skills in relationship building, types and styles of interviews; interaction patterns between client and social worker; observational and experiential activities, role-playing and videotape. PREREQUISITE: SWRK 3903. COREOUISITE: SWRK 3904.
2917. Introduction to Social Work Research. (3). History and methods of social work research including scientific thinking, statistical operations, and systematic approaches to acquisition of social work knowledge. PREREOUISITE: SWRK
2911 .
2918. Field Instruction in Social Work 1. (3). Supervised internship in social service agency or program. Minimum of 200 clock hours required. PREREQUISITE: SWRK 3904 and
director's permission. CQREQUISITES: SWRK 4840 . SWRK director's permission. CQREQUISITES: SWRK 4840. SWRK 3905
2919. Field Instruction in Social Work II. (3). Continuation of supervised internship. Minimum of 200 clock hours required SRERUISITE: SWRK 4830, and director's permission CQREQUISITE: SWRK 4841
2920. Integrative Field Seminer 1. (2). Integration of social work theory with field instruction experiences. PREREQUISITE permission of Director. CQRECUISITE. SWRK 4830
2921. Integrative Field Seminar II. (2). Continuation of SWRK 4840 PREREQUISITE: permission of director. COREQUISITE: SWRK 4831.
2922. Topics in Specialized Social Services. (3). Topics in social needs and services; two to four areas related to studen interest and emerging service needs. Directed by staff, with ectures from campus and social service community. PRE REOUISITE: SWRK 2911 or instructor's permission.
2923. Sociel Work Prectice and Orgenizetionel Chenge. 3). Social change, with particular reference to social worke and social agency, principles of social change, sociology of social action, and an examination of social work delivery systems as bureaucraci
2924. Models of Sociel Intervention III. (3). Theory and application of group dynamics concepts as applied to individua in group, committee and community structures and functions roles of social worker in these settings. PREREOUISITE: SWRK
2911 or 3901 .
2925. Directed Individuel Study. (1-4). Directed advanced reading, field study and/or research in special areas of social work, not otherwise provided in curriculum. NOTE: No more than 4 hours may be taken in any one semester. May be repeated for maximum of 6 semester hours credit. PRE REOUISITE: Social Work major and permission of director Division of Social Work.
2926. Child Welfere Policy end Services. (3). Historic overview and contemporary application of child welfare policy: problems in policy de the public and private domains PRE REQUISITE: SWRK 2911

# THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS 

## H500 BUSINESS ADMINISTRATION (BA)

In addition to specific prerequisites, junior standing or permission of the dapertment chairman is a prerequisite for ell 3000 and 4000 level courses in The Fogelman College of Business and Economics.
3900. Study end Travel in Business and Economics. (3). Travel to important areas of world and conduct study of
economic and business systems of selected countries under economic and business systems of selected countries under and Economics.
4000. Internship in Internetional Business. (1-6). Practical perations of international business. Students placed for 1-8 operations of international business. Students placed for 1-8
month period with cooperating business firm operating in month period with cooperating business firm operating in fields of international banking and finance, transportation,
management, marketing, or accounting. Academic credit granted upon certification of satisfactory performance by cooperating business firm and upon acceptance by faculty of written research report by student.
4100. Seminar in Entrepreneurship. (3). Individual incentive with particular reference to the Executive in Residence and Entrepreneur Fellow Series during a single academic year Emphasis on directed advanced reading and research papers. May be repeated for maximum of 6 semester hours. PREREQUISITES: ACCT 2020, ECON 2110 , ECON 2120.
4900. Practicum in Research. (1-3). Actual problem-solving research activities in business and economics. Student assigned to project either being conducted currently by faculty member or one developed under supervision of faculty member Whenever possible, project within student's major field of study. PREREQUISITE: senior status.
4990. Junior Achievement Advising Practicum. (3). Threehour credit course designed for two-semester duration. Students will havel/P grade at end of fall semester; final grade given at end of spring semester. Professional organizations approved by The Fogelman College of Business and Economics and other groups may form advising teams under direction of faculty advisor for purpose of working with Junior Achievement. PREREQUISITE: upper division status and approval of ment. PREREQUSTE: upper division status
Junior Achievement program advisor. (S/U).

## ACCOUNTANCY

## PROFESSOR ROBERT B. SWEENEY, Chairman

Room 200A, The Business Administration Building

In addition to specific prerequisites, junior standing or permission of the department chairman is e prerequisite for all 3000 and 4000 level courses in The Fogelmen College of Business end Economics.

## H510 ACCOUNTANCY (ACCT)

2010. Fundamentels of Accounting 1. (3). Collection and analysis of financial transactions and communicating information they contain with periodic general purpose financial statements using double-entry accrued accounting techniques. Use of accounting procedures to routinize and control repetitive activities. Theory stressed with minimum necessary attention to clerical operations.
2011. Fundementals of Accounting II. (3). General survey of cost accounting. income taxes, financial statement analysis, and special accounting analysis for managerial decision making. PREREQUISITE: ACCT 2010.
2410 . Introduction to Computers in Accounting. (3). Use of microcomputers in accounting environment; word processor, spreadsheet, data base, and graphics software for accounting applications. PREREQUISITE or COREQUISITE: ACCT 2020.
2012. Managerial Accounting. (3). Accounting as it relates to managerial control. Includes financial statement analysis including price level changes, cost controls, budgeting. quantitative accounting techniques for decision making in management. Both semesters. PREREQUISITE: ACCT 2020.
2013. Intermediate Accounting I. (3). Review of accounting process and financial statements; cash and cash flow; receivables and short-term investments; inventories; liabilities and income taxes; operational assets; intangibles. PREREQUISITES: ACCT 2020. 2410.
2014. Intermediate Accounting II. (3). Corporations, formation and changes after formation; retained earnings: longterm investments; bonds; pensions: leases; accounting changes; income recognition and E.P.S.; Statement of Changes in Financial Position; financial reporting and changing prices. PREREQUISITES: ACCT 2410, 3110.
2015. Cost Accounting. (3). Cost systems, including job order, process, and standard, as management information systems for planning and control. Allocation of indirect costs, preparation of variable budgets, and determination of standard cost veriances and their meaning PREREQUISITE: ACCT 2020, 2410.
2016. Federal Income Tax 1. (3). Regulations pertaining to individuals and partnerships; installment and deferred payment sales; introduction to corporate taxation. PREREQUISITE: ACCT 3110 .
4210-6210. Advanced Accounting. (3). Partnerships, consignments, installment sales, statement of affairs, receiver's accounts, statement of realization and liquidation, business combinations and consolidated fina ncial statements, branch accounting, fund accounting, international accounting. PREREQUISITE: ACCT 3120.
2017. Auditing. (3). Ethics in accounting practices, internal control, auditing standards and procedures, programs of audit of various accounts, construction and indexing of various papers, reports to clients; practice audit carried out. PREREQUISITES: ACCT 4450.
4310-6310. Advanced Cost Accounting. (3). Budgets, determination of standards, variances and their functions, cost reports, profit projecting. direct costing. gross profit and break-even analysis, cost-profit-volume analysis, capital expenditure control, comparative cost analysis. PREREQUISITE: ACCT 3310.
4410-6410. Computer Applications in Accounting. (3). Advanced techniques in application of computerized accounting and productivity software including computer languages; various packages for data management and decision making utilized and programs of current and anticipated interest and use in accounting profession. PREREQUISITE: ACCT 2410, 3310.
4450-6450. Accounting Systems. (3). Problems involved in designing accounting systems for various types of businesses, including processing accounting data by computer. PREREQUISITES: ACCT 2410, 3120, 3310.
4520-6520. Federel Income Tax II. (3). Laws and regulations for corporations, estates and fiduciaries. Includes project on tax research. PREREQUISITE: ACCT 3510.
4540-6540. Governmental Accounting. (3). Accounting theory and practice applicable to federal, state, and local government and to non-profit institutions; budgetary control; control, classification, and use of funds; financial statements and reports. PREREOUISITE: ACCT 2020.
4610-6610. Seminar in Accounting. (3). Capstone course to be taken, preferably, the student's graduating semester. Impact on financial reporting of SEC and other regulatory agencies; in-depth calculation of E.P.S.; update on taxes; conceptual framework project of FASB; inflation accounting: financial statement analysis. Current pronouncements of FASB and AICPA committees. PREREQUISITE: ACCT 3120.
2018. Microcomputer Accounting Leboratory. (1). (2720). Use of microcomputer to perform practical accounting applications. PRERQUISITES: ACCT 3120, 3310.
2019. Problems in Accounting. (1-3). Students will conduct approved projects in major area under supervision of faculty. PREREQUISITE: Permission of department chairman.
2020. Internship in Accounting. (1-6). Internship in business organization to gain on-the-job experience. Project to be approved, supervised by department faculty member. Credit allowed only after acceptance of report, varies with complexity of duties. PREREQUISITE: Senior standing and a minimum G.P.A. of 2.75 .

## ECONOMICS PROFESSOR DAVID H. CISCEL, Chairman

Room 400, The Business Administration Building

In addition to specific prarequisites, junior standing or permission of the department chairman is a prerequisite for all 3000 and 4000 level courses in The Fogelman College of Business and Economics.

## H520 ECONOMICS (ECON)

1010. Economic Issues end Concapts. (3). Critical examination of current aconomic issues facing the country. Discussion end use of elementary tools of economic enalysis for familiarization with importance and applicability of economic reasoning. Will not satisfy either ECON 2110 or 2120 requirement for College of Business Administration.
1011. Introduction to Mecroeconomics. (3). Natura and functions of national economy. Includes supply and demand, national income and product, consumption and investment national income and product, consumption and investment
behavior, fiscal and monetary policy, and international trade behavior, fis and
1012. Introduction to Microeconomics. (3). Tools of economics as they apply to operation of a markat aconomy. Includes mics as they apply to operation of a market aconomy. Includes
supply and demand analysis, consumer behavior, economic
nature of production and cost, behavior of firms in both competitive and monopoly environments, income distribution theory and effects of government intervention in market system. PREREQUISITE: ECON 1010 or 2110 recommended but not required.
1013. Principles of Macroeconomics (Honors). (3). Accelerated and intensified introduction to basic concepts of macroeconomics: supply and demand, national income and product, unemployment and inflation, monetary and fiscal policy, and international trade. PREREQUISITE: Invitation of Department of Economics or admission to University Honors Program.
1014. Principles of Microeconomics (Honors). (3). Accelerated and intensified introduction to basic concepts of microeconomics: supply and demand, consumer behavior, production and cost, competitive and monopolistic market structure, income distribution, and effects of government intervention in market system. PREREQUISITE: invitation by Department of Economics or admission to University Honors Program.
1015. Economic Issues and Problems. (3). Current economic issues and problems in the United States. Emphasis on application of tools and analytical methods PREREQUISITES: ECON 2110, 2120
1016. Labor Economics. (3). Introduction to institutional aspects of American labor force and its organization wage and employment theory, economic role of collective bargaining, and basic ingredients of public policy toward labor organization. PREREQUISITE: ECON 2120 .
1017. Microeconomic Theory. (3). Intermediate approach to price theory. Stress on market mechanism as device for resource allocation; attention to uses of basic microeconomic concepts in analysis of economic problems and in formulation of policy. PREREQUISITE: ECON 2120 .
1018. Macroeconomic Theory. (3). Intermediate approach to social income accounting and to functional relationships between important aggregate economic variables as well as to forecasting and social policy implications. PREREQUISITE: ECON 2110 .
1019. Economic Development of the United States. (3). Economic growth of American economy in general and problems of economic growth in South in particular. Emphasis on factors instrumental in that growth in various segments of economy. PREREQUISITE: ECON 1010 or 2110.
1020. Internetional Economic Development - An Ecological Perspective. (3). Process of economic development as adaptive interplay between man's needs and ways in which environment exploited to satisfy those needs in both developed and less developed countries. PREREQUISITE: ECON 1010 or 2110 or consent of instructor
1021. Money end Banking. (3). Monetary and banking history of leading countries with special emphasis on theory of money and banking in United States, deposit and earnings operetions of individual banks, interbank and central bank relations. PREREQUISITE: ECON 2110.
1022. Manpower Program Planning. (3). Planning of programs designed to solve manpower problems. Includes overview of manpower policy and legislative efforts to relieve manpower problems. methods of manpower research, goals of manpower planning, and approaches and techniques of manpower planning.
1023. Manpower Program Administration. (3). Administration of programs designed to solve manpower problems. Includes management of manpower program units, special income and employment groups in labor force, types of manpower programs, delivery of manpower services, coordination of programs among manpower agencies, and evaluation of manpower programs. PREREQUISITE: ECON 3210.
1024. Economic Foundations of Legal Issues. (3). Economic theory and research methods used to explain legal foundations of market economy. Topics include property rights and contracts, free and regulated markets, environmental protection, consumer protection, economics of crime, and economics of discrimination. PREREQUISITE: ECON 2120.
1025. Manageriel Economics. (3). Direct application of economics to common business problems. Economic framawork and empirical techniques of production and cost analysis, project evaluation, pricing, and demand analysis. PREREQUISITES: ECON 2120 and MGMT 2711, 2750.
1026. Economic Forecasting. (3). Current economic thinking on problems of recession and inflation as background to economic forecasting. Methodologies of forecasting anelyzad with examples of each. PREREQUISITE: MGMT 2711 or equivalent.
4130-6130. Government Regulation of Business. (3) Approaches to legal and legislative control of business especially tax laws, commission regulations, and antimonopoly legislation - in view of impact of each on industrial operating policy. PREREQUISITE: ECON 1010 or 2110 .
1027. Induatrial Organization. (3). Economic enalysis of two aspects of Amarican industry: 1) historical study of new industries, of question of oligopoly market power, and of
impact of merger waves, and 2) analysis of structure, conduct, and performance in industry using case studies in manufacturand pertormance in industry using case studies in man inatitu
ing.
transportation and trade. PREREQUISITE: ECON 2120 4340. Comparative Economic Systams. (3). Theoretical framework underlying major alternative economic systems -captalism, socialism, communism, fascism - with U.S.
Swaden, the U. K. the U.S.S.R. and Spain as examples. Swaden, the U.K.. the U.S.S.R. and Spain as examples.
Attention to problems and difficulties associated with integraAttention to problems and difficulties associated with in
tion of systems. PREREQUISITE: ECON 1010 or 2110 .
1028. Intarnational Economics. (3). Historical approach to theory of international trade: consideration to techniques of control over investment and trade, foreign exchange, balance
of payments, and world interdependence. PREREOUISITE: of payments, and world
ECON 2120 or equivalent.
1029. Development of Economic Thought. (3). Historical development of economic thought. Attention primarily on emergenca of Classical and Neoclassical thought, several
dissident schools of thought, and twentieth-century economic dissident schools of thought, and twentieth-cen
thought PREREQUISITE: ECON 1010 or 2110
thought PREREQUISITE: ECON 1010 or 2110 .
4511 . Urban and Regional Economics. (3). Theory and problems of regional economic development and evolving economic structure of urbanized areas. Analysis of principles of location of economic activity, interregional income and trade theory, and public policy for development of regions. trade theory, and public policy for de
PREREQUISITE: ECON 1010 or 2110.
4610-6610. Central Banking and Monetary Managament. (3). History and economic function of central banks. Analysis of role of monetary policy in achieving predetermined objeccentral banking. and fintencial markets. PREREQUISITE: ECON 3320 or 3610 .
1030. Economics of the Public Sector. (3). Theory and practice of government expenditure, revenue, and debt, and problem of integrating them into meaningful fiscal policy.
Alternative forms of taxation analyzed, especially from standAlternative forms of taxation analyzed, especially from
point of economic effects. PREREQUISITE: ECON 2120. 4740-6740. Health Care Economics. (3). Topics include unique nature of health care as economic good, health care market and its participants including patients, physicians, and
hospitals, and financing and delivery of personal health care in hospitals, and financing and deliver
1031. Economics of State and Local Governments. (3). Fiscal operations at state and local government levels in United States. Attention to state and local government tax structures; emphasis on property tax assessment and administration. Fiscal relations of intergovernment units, their expend iture elements, debt policy, budgeting, and financial adminis
tration. PREREOUISITE: ECON 1010 or 2110 . ration. PRER
$4810-6 \mathrm{~B} 10$. Introduction to Economic Analysis. (3). Application of quantitative techniques of analysis to economic problems, including identification of meaningful relationships. formulating usable quantitative statements about them, and
developing relevant analytical methods. PREREQUISITES ona developing relevant analytical methods. PRERE
year of college mathematics and ECON 3310.
1032. Problems in Economics. (3). Students investigate issues surrounding selected economic problem and develop report of that investigation. May not be repeated for credit. PREREOUISITE: upper division standing and approval of department chairman.
1033. Internship in Economics. (1-6). Internship in business organization to gain on-the-job experience. Project to be approved and supervised by department faculty. Credit allowed
only after acceptance of report. PREREOUISITE: Senior only after acceptance of report. PR
standing and minimum G.P.A of 2.75
1034. Senior Seminar in Economics. (3). Coordinated by department chairman and conducted by selected members of department. To integrate several fields and course areas pursued by undergraduate majors into meaningful whole
Required of all departmental majors in their last semester of undergraduate enrollment.
4930-6930. Economic Evaluation of Investmant Projects. (3). Objective evaluation of proposed business and social projects. Concentrates on tools of cost-benefit analysis and provides instruction in making and controling projact budgets. PREREOUISITES: ECON 1010 or 2110 .
1035. Honors Thesis in Economics. (3) Independent research open only to students enrolled in Economics Department Honors Program. Honors thesis supervised by three-faculty committee selected by student and approved by Economics
Honors Committee. PREREQUISITE: permission of Economics Honors Committee. PREREQUIS
Department Honors Committee.

## FINANCE, INSURANCE AND REAL ESTATE PROFESSORC.S. PYUN, Acting Chairman <br> Room 402A. The Business Administration Building

In addition to specific prerequisites, junior stending or permission of the department chairman is a prerequisite for
all 3000 and 4000 level courses in Tha Fogalman College of Business and Economics.

## H530 FINANCE, INSURANCE AND REAL ESTATE (FIR)

2220. Personal Financial Management. (3). Nontechnical dealing with broad areas of budgeting, insurance, borrowing and credit purchases, home ownership, investment, taxes, and family financial planning NOTE: If taken by e student after
he has received credit for fIR 3710 or 3810 , credit will not heunt for BBA degree.
2221. Business Law. (3). Elements of lawend legel principles
ancountered by businessman. Emphasis on basic lew of
contracts, sales and secured transactions. negotıable instruments, real and personal property, agency, forms of business organization, suretyship, insurance contracts and torts.
2222. The Legal, Social, and Political Environmant of 8 usinass. (3). Emphasis on legal, social, and political environment in which business and its executives exist. Legal, social,
and political forces that affect business operations. Lectures and political forces th
and case discussions.
2223. Real Estate Principles. (3). Basic terminology, principles and issues. Topics include market analysis, real estate law, instruments, legal descriptions, appraisal, investment.
finance, brokerage, property management, and development. 3410 . Businass Financa. (3). Integration of principles of financial management with institutional finance. Currant topics of managerial finance including working capital management, capital budgeting, and acquisition of funds. PRE
REOUISITE ACCT 2020 and MGMT 2710 .
2224. Investments. (3). Principles of investment in stocks and bonds. Includes fundamental, economic, and technical analysis; measurable and unmeasurable aspects of risk; portfolio management; and the psychological aspects of the
market. PREREQUISITE: ECON 2110 and MGMT 2710 . market. PREREQUISITE: ECON 2110 and MGMT 2710.
2225. Financial Markets. (3). Survey of important funds markets, institutions and characteristics peculiar to them.
Sources of supply and of demand for funds in each market, and complex interrelations between several markets analyzed.
2226. Commodity Futures Market. (3). Mechanics of trading including the contract, commodities traded. exchanges in-
volved, etc. Transfer of risk and stablization of prices through volved, etc. Transfer of risk and stablization of prices through
futures trading. Role of speculators. Buying/selling strategies futures trading. Role of speculators. Buying/selling strategies including hedging used by
speculators, and processors.
2227. Principles of $R$ isk and Insurance. (3). Nature and
handling of risk in personal and business situations. Emphasis handling of risk in personal and business situations. Emphasis
on property, liability and life exposures to loss. Designed for on property, liability and life exposures to loss. Designed for
non-insurance major as well as a basis for advanced study.
4011-6011. Estate Planning and Law of Taxation. (3). Survey of law of taxation as applied to transmission of property by gift or death and its impact upon accumulations of wealth. Estate planning from individual viewpoint designed to create.
maintain, and distribute maximum estate possible. PREREmaintain, and distribute maximum estate poss
OUISITE: FIR 3011 or consent of the instructor.
4110 . Special Topics. (3). Current topics in one of following areas: Finance, Insurance, Real Estate, or 8 usiness Law Course emphasis will vary each semester. Specific course descriptions available through FIR Department prior to enroll-
ment. May be repeated once with change in topic area. ment. May be repeated once with
PREREQUISITE: consent of instructor.
4310-6310. Real Estate Law. (3). Law and legal instruments as applied to real estate. To serve needs of property owners
and those engaged in real estate business. PREREOUISITE: FIR 3310
4320-6320. Real Estate Finance. (3). Terminology, legislation, principles, and analytical techniques pertaining to financing of real estate. Perspective of lender, residential
borrower, and income property borrower. PREREQUISITE: FIR borrower, an
3310,3410
4330-6330. Determinants in Housing Finance. (3). Consideration of determinants of private and public demand for
housing; relationships between construction and economic housing, relationships between construction and economic
trends; new town legislation, urban renewal and development, trends; new town legislation, urban renewal and development,
improving environment and housing for low income groups, improving environment and housing for low income groups, of private enterprise in developing, maintaining and improving housing. PREREQUISITE: FIR 3310
4340-6340. Raal Estata Appraisal. (3). Basic terminology, principles, procedures, and issues. Topics include the nature of value, principles of value, appraisal process, market gross rent multiplier approach, and appraisal reports. PREgross rent multiplier
REQUISITE: FIR 3310.
2228. Real Estate Invastment Analysis. (3). Real Estate investment principles and practices reviewed. analyzed and evaluated. Emphasis on tax considerations, invesiment strategy and model building. PREREQUISITE: FIR 3310.
2229. Managerial Finance. (3). Analytical approaches to firm's financial decisions; including current asset management, capital budgeting. cost of capital. capital structure
determination, and dividend policy. PREREOUISITE: FIR 3410 . 4550. International Finenca. (3). Financing international trade and investments; foreign exchange markets and exchange rates; balance of payments; current developments in
4610-6610. Cases in Managerial Finance. (3). Application of tools and principles introduced in previous courses to develop up-to-date problem solving techniques: Cases approached trom standpoint of top level management and utilize
both quantitative and qualitative analysis. PREREQUISITE: FIR both quantita
$\mathbf{3 4 1 0}, 4440$.
4720-6720. Operations and Management of Financial Institutions. (3). Exposure to financial policies and decisionmaking that are peculiar to financial institutions in United States. Profitable management of funds consistent with adequate standards of liquidity and solvency. Offered avery
other year. PREREOUISITES: ECON 3610, FIR 3410 , and FIR other year. PREREOUSLTES: ECON
3720 , or consent of the instructor.
2230. Security Analysis and Portfolio Management. (3). Development of techniques for finding actual. worth of securities, primarily stocks and bonds. Portfolio management involves salection, timing, diversification, and other aspects of supervising investment funds. PREREQUISITE: FIR 3710.
$4810-6810$. Property and Liability Insurance I. (3). Forms and functions of fire, marine, automobile, general liability and other types of property and liability insurance. Emphasis on business and industrial app
3810 or consent of instructor.
481 1-6811. Property and Liability Insurance II. (3). Specialized insurence contrects, problems in risk identification, measuremant, end specification of business property and
rability exposures Captive insurance companies, $P$ \& $L$ insurance markets, and current problems of business arising insurance markets, and current problems of business arising
from social, lagal and economic definitions of loss and from social, lagal and economic definitions of loss and
responsibility. PREREQUISITE: FIR 4810 or consent of instructor.
4B20-6B20. Life and Health Insurance. (3). Functions of life and health insurance. Emphasis on economic security needs, human behavior and the problems related to death and dying Individual life, health and annuity contracts and socia insurance. Concepts in risk selections and regulation. PRE
REQUISITE: FIR 3810 or consent of instructor.
4821-6B21. Advanced Lifa and Health Insurance. (3).
Legal, mathematical and financial aspects of life and health Legal, mathematical and financial aspects of life and health insurance. Elements on contract formation, creditor rights,
disposition of the proceeds of life insurance, ratemaking. reserve determination, surplus distribution investments of life insurers, interpreting financial statements. PREREOUISITE: FIR 4820 or consent of instructor.
4840-6840. Multiple Line Insurance Company Operations. (3). Company and industry functions other than contracts, includingrating, rate-making, reserves, auditing. underwriting,
reinsurance, claims, production engineering. and governreinsurance, claims, production engineering.
mental supervision. PREREQUISITE: FIR 3810.
2231. Social Insuranca. (3). Nature and causes of economic nsecurity in our society; emphasis on broader aspects of public and private programs; Social Security Act, Unemployment Compensation, Workmen's Compensation, Medicare and other approaches. De-emphasizes detailed facts and statistics otherwise readily available from various governmental agencies.
4860-6860. Employee Benefit Programs. (3). Life, health and pension benefit programs from the viewpoint of the programs, alternate methods for providing benefits, and broadly designing specifications for benefits
2232. Risk Managament. (3). Problems of risk manager in small and large firms, methods of handling risk that serve as alternatives to obtaining insurance, and brief survey of insurance as standard for comparisons
2233. Problems in Finance, Insurance, or Real Estate. (1-3).
Student will carry on approved research projects in the major area under supervision of staff members. PREREQUISITE: senior standing and permission of the department chairman 4911. Internship in Finance, Insurance, and Real Estate. 1-6). Internship in business organization to gain on-the-job experience in real-life environment. Project to be approved and supervised by department faculty. Credit allowed only and minimum GPA of 2.75 .

## MANAGEMENT

## ASSOCIATE PROFESSOR DONALD W. SATTERFIELD, Acting Chairman

Room 202. The Business Administration Building

In addition to specific prerequisites, junior standing or permission of the department chairman is a prarequisita for Business and Economics.

## H550 MANAGEMENT (MGMT)

1010. Introduction to Businass. (3). Acquaintance with major institutions and practices in business world. Manage ment fields include such areas as personnel management labor-management relations, and production management Other major fields include such areas as business law accounting, finance, and marketing. Elementary concepts of business: orientation for selection of specific major; information on business career opportunities. Open to frashmen only NOTE: If taken by students with 25 hours or more, credit will not count for BBA degree.
1011. Businass Statistics I. (3). (3710). Introduction to basic statistical procedures for analysis and interpretation of business data. Topics include collection and presentation of data, probability theory, measures of central tendency and variability, sampling distributions, estimation of parameters,
and elementary decision theory. PREREOUISITES: MATH and elementar
1211 or higher.
1012. 8 usiness Statistics II. (3). (3711). Topics include hypothesis testing, nonparametrics, index numbers, analysis of variance, simple and multiple techniques of regression and MGMT 2710
1013. Introduction to Managemant Information Systams with Computar Applications. (3). Introduction to major concepts in business information systems. Students will be on-line interactive environment. PREREQUISITE: MATH 1211.
1014. Applications Program Davalopmant I. (3). Introduction to computer programming in a business environment. Emphasis on structured design, development, testing, imple-
mentation, and documentation using COBOL. PREREOUISITE: COMP 1900, MGMT 2750
27B0. Systams Analysis Methods. (3). Overview of systams developmant life cycle. Emphasis on current systems documentation through use of classical and structurad tools and techniques for describing process flows and data flows, data structures, file and input/output design and prograin specifications, data gathering and information reporting activities, transit
1015. 


3110. Qrganization and Management. (3). Management functions and basic concepts and principles of management. Includes planning. decision-making, organization, coordination 3215. Personnel Administration and Industrial Relations. (3). Role and history of modern labor organizations; job analysis; planning for recruitment, selection, training and analysis; planning for recruitment. selection, training and morale, health and safety: separation; impacts of the Equal Employment Qpportunity Act.
3510. Production and Qperations Management 1. (3) Introduction to management of production function in all types of organizations. Basic understanding of operations of function necessary for systematic analysis of problems associated with
creation of goods and services. PREREOUISITE: MGMT 2711 3750. Applications Program Development II. (3). Development of programs and systems of programs utilizing sequential and random access file structures and processing techniques, Emphasis on structured design, development, testing, imple-
mentation and documentation. PREREQUISITE: MGMT 2760 . 3760. Oparations Research. (3). (4760). Introduction to decision making, concentrating on problem solving technique. Emphasis on problem definition, model construction, and various solution techniques including linear programming, project anal Ysis and control, queuing methods, and simulat
3780. Structured Systems Analysis and Design. (3). Advanced study of structured systems development. Emphasis on strategies and techniques of structured analysis and structured design for producing logical methodoligies aiding in dealing with complexities in development of information systems. PREREQUISITE: MGMT 2780
4210-6210. Human Resourcas Management. (3). In-depth examination of selected issues in human resources management utilizing special problems, topics, and cases. Major issues include planning, employment, development, utilization, performance appraisal, maintenance. and separation of human performance appraisal, maintenance. and separa
resources. PREREQUISITE: MGMT 3110, 3215 .
4220-6220. Collactive Bargaining. (3) Labor-management relations from standpoint of collective bargaining contracts; emphasis on process of negotiating agreements, including procedures, tactics, and subject matter. PREREQUISITE: MGMT
3110,3215 3110, 3215
4230-6230. Labor Legislation. (3). Historic and philosophic background of labor legislation; emphasis on recent legislation in labor area and effect of these laws on social and economic institutions. PREREQUISITE: MGMT 3110, 3215
4240-6240. Compensation Administration. (3), Systematıc examination of administration of wage and salary as tool of management Through use of job descriptions, job analysis, and job evaluation methods. instruction in techniques of rationalizing wage structures. Analyses of some outstanding considerations which must be taken into account in installing MGMT 3110,3215 .
4250. Arbitration. (3). Place and function of arbitration in field of labor-management relatıons, including an analysis of principles and practices, law of arbitration, handling of materials in briefs or oral presentation, conduct of arbitration
hearing, and preparation of arbitration opinion. PREREQUIhearing, and preparation of arbitration opinion. PREREQUI-
SITES MGMT 3110 and 3215 . 4420-6420. Organizetional Bahavior in 8usiness (3), Human relations as applied to people at work in all kinds of and communication and group processes. PREREQUISITE: MGMT
3110 . 4421. Motivation and Leadership. (3). Identification of theoretical and practical approaches to influencing and motivating people. Findings of numerous theorists compared and contrasted to explore relative effectiveness of various leadership styles and motivation theories from managerial diagnosis and understanding of individual's influence styles. diagnosis and understanding
CQREOUISITE. MGMT 4420 .
4510. Production and Operetions Management II. (3). Emphasis on entire production system including interface with engineering, role of materials management, relationship to data base management, and problems of systems coordination. Master planning, value analysis, and organizational aspects of production environment critically examined. PREREQUISITES: MGMT 3110, 3510.
4511. Matarials Management. (3). In-depth course in planning and control of materials requirements. Order point planning and control of materials requirements.
models and systems and requirements planning techniques studied Aggregate inventory management, distribution, interplant inventories, and design of materials management systems emphasized PREREOUISITES: MGMT 3110, 3510 .
4710. Business Policy. (3). Advanced problems in determination, execution, and control of strategic management process in light of changing environments in which organizations operate. PREREQUISITES MGMT 3110 and senior standing in The Fogelman College of Business and Economics. Enrollment usually limited to graduating seniors.
4711-6711. Intermediate Statistical Analysis. (3). In depth study of business decision making using advanced statistical concepts including additional probability distributions, use of samples and sample design, non-parametric methods, and advanced techniques of analysis through use of correlation analysis and analysis of variance Computerized statistical programs utilized to solve complex problems. PREREOUISITES: MGMT 2711 and 2750 .
4755. Business Data Management. (3). Focus on (1) designing, writing, and debugging programs written in a high level language for common business applications involving direct access files; (2) selecting appropriate file organızation; (3) designing data models; and (4) evaluating Commercial Data Base Management Systems. PREREQUISITES: MGMT 3750, 3780
4780. Appliad Softwara Davelopment Project. (3). Application of programming and systems development concepts, principles and practices to a comprehensive system development project Team approach used to analyze, design and document realistic systems of moderate complexity. Use of project control techniques, formal presentations and group of database to support system. PREREOUISITE: MGMT 3760 , 4755.

4785, Information Systams Rasource Management and Planning. (3). A broad overview of the information systems management function with particular attention to planning. organizing and controlling user services and to managing the computer information systems development process PRE-
REQUISITE MGMT 4780 REQUISITE: MGMT 4780.
4790-6790. Management Information Systams. (3). Problems and techniques concerning design and installation of responsive systems brought together; special attention to executive use of system's product. System approaches utilizing current planning and control models studied through current literature and texts in computer filald. PREREQUISITES: MGMT 2750 and one college level mathematics course; junior standing, or permission of instructor,
4810-6810. Intarnational Managament, (3). Fundamental knowledge of contemporary managarial problems as presented in foreign-influenced environment. Uniqueness of problems in planning, control, choosing foreign associates, plant location, labor, bureaucracy, legal constraints, and trade with foreign governments highlighted by texts and through discussion of articles from current business periodicals. PREREQUISITES MGMT 3110 and MKTG 3010
4820. Vantura Initiation Manegement. (3). Initiation process of new business venture. Participants as teams develop detailed development plan covering all phases of business initiation and development. PREREQUISITE: completion of 3000 leval Business Administration Core Courses or consent of instructor
4910. Menagament Problems. (1-3). Student carries on approved research projects in his major area under super-

Ision of staff members. PREREQUISITE: senior standing and permission of department chairman
4911. Internship in Management. (1-6). Internship in business organization to gain on-the-job experience. Project to be approved and supervised by department faculty. Credi Senior standing and a minimum G.P.A. of 2.75 .

## MARKETING

ASSOCIATE PROFESSOR C. L. ABERCROMBIE, Chairman

Room 302, The Business Administration Building

In addition to specific prerequisites, junior standing or permission of the depertment chairman is a prerequisite for permission of the depert ment chairman is a prerequisite for Business and Economics

## H560 MARKETING (MKTG)

3010. Principles of Marketing. (3). Comprehensive study of structure and functions of marketing system in the firm economy, and society. Includes analysis of target markets environments, and managerıal aspects of marketing practices PREREQUISITE junior standing, ACCT 2010, and ECQN 2120 or permission of department chairman
3011. Consumer Behavior. (3). Why consumers behave as they do. Psychological and sociological theories and principles applied to current marketing problems. PREREQUISITE: MKTG 3010 or permission of instructor.
3012. Advertising Fundamentals. (3). Field of advertising including agencies, media, layout, copy, typography PRE REQUISITE: MKTG 3010 or permission of instructor
3013. Advertising Problems. (3). Case study of advertısing functions, emphasizing determination of advertising strategy planning of creative strategy; planning of media strategy evaluation of advertising results and introduction to organiza tion and management of advertising function. PREREQUISITE MKTG 3140.
3014. Retailing Fundamentals. (3). Changing concepts of etailing from management viewpoint. Principles that underlie success to and ACCT 2010 or permission of department charman
3015. Sales Fundamentals. (3), Basics of personal selling preparation, personality development, communications, sale interviewtechniques, ethics, and career opportunities Selling skills developed via sales presentations, role playing, audio visual self-observation, and use of sales aids. PREREQUISITE MKTG 3010 or permission of instructor, MKTG 3012 recom mended but not required
3016. Physical Distribution. (3). Physical distribution system within an organization. Emphasis on transportation, custome service, inventory. warehousing and packaging functions PREREQUISITE: MKTG 3010
3017. Transportetion and Logistics Systems. (3). Economic social and political aspects of transportation system of the United States. Interrelatıonships among transportation, phys cal distribution, logistics, marketing. production, and financia management as they impact flow of raw materials and inished goods through the firm. PREREQUISITE: MKTG 3610
3018. Traffic Managemant (3). Detailed analysis of freight traffic function within firm's logistics system. Includes rate and classification systems, claim liability, shipping documen procedures, carrier selection, and other aspects associated with organizing and operating traffic department. PRERE QUISITE: MKTG 3610 or permission of department chairman 3710. Agrimarketing Methods and Institutions. (3). Govern mant, cooperative, and private institutions affecting agri marketıng. Analysis of marketıng functions as applied to marketing of supplies and services to the farm, as well as
3019. Markating Research. (3). Research methods and procedures used in field of marketing to help solve busines problems. PREREQUISITES: MGMT 2711, 2750, and 6 hours of marketing including MKTG 3010.
3020. Advertising Media and Campaigns. (3). Characteris tics and uses of media by companies, products lines and easons for selection. Last part of semester devoted to development of campaign for particular firm. PREREQUISITE MKTG 3140
3021. Industrial Marketing. (3), Marketing to the organization buyer (includes business, governmental, and institutiona buyers). All aspects of the marketıng mix (including persona selling) and marketing research as applied to industria marketing. PREREQUISITE MKTG 3010
3022. Purchasing. (3). Policies for effective and efficient procurement of goods and services for today's industry Close attention to measurement and evaluation of purchasing performance. PREREQUISITE: MKTG 3010
3023. Retail Merchandísing Managament. (3). (3330) Management of retail enterprisas; buying with emphasis on determination of need, selection, timing and pricing, control of inventory investment. Qperations management by long- and short-range objectıves and policies. PREREQUISITE: MKTG 3320.

4410 . Sales Management. (3). Salas management functions of recruiting and hiring, training and assimilating, planning controlling and motivating, and sales analysis, Role of persona selling in the promotional mix and sales objectives of management. PREREQUISITE: MKTG 3010
44 30. Selas Promotion. (3), (3430). Supplements, supports, and coordinates other two promotional functionsof advertising
with sales promotion and on need to coordinate antire promotional mix PREREQUISITE: MKTG 3010.
4440. Marketing Foracasting and Analysis. (3). Techniques of forecasting and analysis including the objectives and applications of varıous types of research. Computer applications of forecasting packages. PREREQUISITE: MKTG 3010, MGMT 2711
4530. International Marketing. (3). Bases and promotion of foreign trade; international marketing organizations and methods: technical and financial features of international marketing. PREREQUISITE: MKTG 3010.
4610 . Transportation end Policy Alternatives. (3). Transportation policy alternatives and problems viewed in relation to their effects on carriers, transport users and general public. Evolution of public control and promotion in transportation including role of regulatory commissions. PREREQUISITE: 6
hours in transportation and logistics courses or permission of hours in transportation
4620. Carrier Management. (3). Problems confronting managers of transportation companies. Includes carrier organization, operations, marketıng strategies, finance, control, sales, labor relations, and shipper-carrier interaction. PREREQUISITE: 6 hours in transportation and logistics courses or permission of department chairman.
4692. Seminar in Trensportation end Logistics. (3). Problems in transportation and logistics. PREREQUISITE: 9 hours in transportation and logistics courses or permission of department chairman
4720. Ceses in Agrimarketing. (3). Cases in a mature agrimarketing industry where knowledge of past problems has useful application to marketing in the future
4750. Internationel Agriculturel Marketing. (3). Historical background of governmental policies and involvement; emphasis on current institutions, service organizations, marketing techniques, and financial considerations involved in international marketing of agricultural products and services.
4901. Management of Merketing Stretegies. (3). Comprehensive study of marketing strategies and how implemented. Computer games and cases as well as "real-world" problems to illustrate application of marketing concepts in practical manner. PREREQUISITES: MKTG 3012, 3610, and 4080 .
4910. Problems in Marketing. (1-3). Students carry on approved research projects in their major area under supervision of staff members. PREREQUISITE: senior standing and permission of department chairman.
4911. Marketing Internship. (1-6). Internship in business organization to gain on-the-job experience. Project to be approved by department chairman and supervised by departmental faculty member. Credit allowed only after acceptance supervising faculty member. PREREQUISITE: Senior standing and minimum G.P.A of 2.75 .

## OFFICE ADMINISTRATION <br> PROFESSOR HERMAN F. PATTERSON, Chairman

Room 300, The Business Administration Building

In eddition to specific prerequisites, junior stending or permission of the depertment chairmen is e prerequisite for ell 3000 and 4000 level courses in The Fogelmen College of
Business end Economics.

H570 OFFICE ADMINISTRATION (OFAD)
1210. Elementary Typawriting. (3). Use and operation of parts of typewriter, mastery of keyboard, simple business and professional letters and reports, introduction to tabulations.
1220. Intermediate Typewriting. (3). Typing of different styles of business letters, tabulations, and manuscripts; developing typing rate of 45 words or more per minute.
1230. Keyboerding end Microcomputer Applications. (3), Development of basic keyboarding skills for efficiant operation of computer for business and personal use; emphasis on varıous microcomputer applicatıons including spacific business applications.
1240. Introduction to BASIC Progremming for Business. (3). Programming methodology using BASIC language and business applications Designing and writing a variety of programs for use on CRT terminals, minicomputers, and microcomputers. Emphasis on financial, accounting, management. economic, and office areas.
2120. Fundementels of Shorthand. (3). Basic principles of Gregg shorthand - alphabet, brief forms, phrases, and abbraviations; beginning dictation and pre-transcription training PREREQUISITE: QFAD 1210 or equivalent.
2130. Intermediete Shorthend. (3). Review of shorthand theory, taking shorthand and transcribing accurately. PREREQUISITES: QFAD 1220 and 2120 or equivalents.
2210. Introduction to Law. (3). Nature and process of law for the legal assistant. Includes such areas as functions of attorney, development of law, overview of system's justice and legal institutions, and survey of scope of law.
2211. Lew Office Manegement. (3). Basic principles of management and necessary techniques and systems for efficient law office operation.
2212. Legel and Qffice Applicetions of Accounting. (3). Review of accounting theory. Emphasis on application of accounting principles to operation of a law office. PREREQUI-
SITES: ACCT 2010, 2020 .
2213. Legel Reseerch end Writing I. (3). Emphasis on analysis and research of legal problems, interpretation of legal decisions and statutory materials, and communication of facts and ideas.
2214. Legel Reseerch end Writing II. (3). State rules of practice and procedure. Emphasis on drafting pleadings. motions, memoranda of law, and appellate briefs. The Code of Professional Responsibility examined through class discussion and hypothetical cases. PREREQUISIE: QFAD 2213
2215. Tennessee Courts end Procedure.(3). Introduction to court structure and to Tennessee Rules of Civil Procedure which govern the system.
2216. Femily Lew. (3). Domestic relations course for the paralegal. Substantive and procedural law in family law Includes marriage, women's rights, minor's disabilities, annulment, child custody, and adoption. Primary emphasis on Tennessee statutes and case law
2219. Corporations. (3). Major types of business organizations; formation and structure of corporations; drafting of tions, formation and structure of corporations; drafting of
corporate documents, including articles of incorporation and corporate documents, including articles of incorporation and
bylaws, stock certificates, resolutions, employment agreebylaws, stock certificates, resolutions, employm
ments, acquisitions and mergers, closing papers
ments, acquisitions and mergers, closing papers
3140 . Advenced Shorthend. (3). Review of shorthand principles, daily speed practice, development of transcription skill for production of mailable transcripts. PREREQUISITES: OFAD 1220 and QFAD 2130 or equivalent.
3217. Investigetion. (3). Legal assistant's role in gathering
basic facts, interviewing key witnesses, searching documents, basic facts, interviewing key witnesses, searching documents, of confidentiality and of formal and informal cooperation with opposing counsel.
3218. Contrects. (3). General survey of contract law, definitıons and classificatıons of contracts, capacity of parties, legal effect of offer acceptance and consideration. Introduction to provisions of Uniform Commercial Code.
3219. Lebor Law for Peralegals. (3). History of labor and statutory basis for American law Grievance and arbitration employment discrimination, and workars compensation included
3220. Litigetion end Evidence. (3). In-depth coverage of civil litigation in state and federal courts from client interview and jury selection through appeals and rules of evidence with regard to witnesses and exhibits. State court practice based upon Tennessee Coda of Civil Procedure but with view toward adaptability to other states.
3250. Advanced Typewriting. (3). Review of business letter styles, manuscripts and reports. statistical tables. PREREQUISITE: OFAD 1220.
3510. Business Communicetion. (3). Communication theory applied to solving of business problems. Presentation of oral and written case solutions: emphasis on letters, memoran dums, short reports, and job applications. Selection and use of research sources. Effective business coordination and control through communication; communicating in political and ethica environment. PREREQUISITE: Freshman English.
4270. Secreteriel Typewriting end Qffice Mechines. (3). Instruction and practice in use of secretarial office machines including executive typewriters; transcribing from voicewriting equipment; ink, spirit and offset duplication; copying machines PREREQUISITE: OFAD 3250.
4320. Applied Secretariel Practice. (3). Qualifications. duties and training of secretary; requirements for employment organization of work: telephone etiquette; business reference
books; receptionist techniques. PREREQUISITE: OFAD 1220 books; recepti

## or equivalent.

4330. Records Manegement and Control. (3). Handling of ncoming and outgoing mail; filing procedures; installation administration, and control of geographic, numeric, subjec and Soundex filing systems; practice in several types of filing
4410-6410. Qffice Menegement. (3). Modern methods in office organization and management, scientific office manage ment, office reports, office correspondence, calculating and checking, filing, records retention, duplicating, handling mail, planning procedures, planning for equipment, office machines, automation, planning for office space, physical working conditions and office layout
4420-6420. Word Processing Theory end Concepts. (3). Emphasizes concepts and development of techniques and basic applications of word processing Includes word probasic applications of word processing includes word pro-
cessing systems and procedures, equipment selection, layout and design of word processing centers, dictation systems and procedures, and human aspects of word processing systems.
4331. Word Processing Applicetions. (3). Emphasis on operation of magnetic media automatic typewriters and visual display word processing equipment Training in equipment operations and applications design; simulated office and word processing projects. PREREQUISITE: QFAD 1220 or ability to type 40 words per minute.
4332. Problems in Qffice Administretion. (1-3). Directed ndividual study in major area under supervision of staff members. PREREQUISITE: permission of department chair man
4333. Office Internship. (1-6). (4350). Internship in business organization to gain on-the-job experience. Project to be approved and supervised by a department faculty Credit Senior standing and minimum G.P.A. of 2.75 .

## THE COLLEGE OF COMMUNICATION AND FINE ARTS

## K100 COMMUNICATION/FINE ARTS (CCFA)

Students who wish to apply for credit for experiential learning may obtain quidelines from the Dean of the College of Communication and Fine Arts Fees for this credit are listed in Fees and Charges.
1900-1999. Introductory Level Experiential Leerning in (descriptive title).
2900-2999. Intermediate Level Experiential Leerning in (descriptive title).
3900-3999. Advanced Level Experiential Leerning in (descriptive title).

## ART

ASSOCIATE PROFESSOR CAROL CROWN, Chairman
Room 201, Jones Hall

Transfer students seeking edvenced standing in ert ere required to submit e portfolio.

## K020 ART (ART)

1101. Introduction to Art. (3). Fundamental principles of the fine arts; understanding of art products and processes as basis for judgment and enjoyment of all types of art expression. Does not meet degree requirements for the B. F.A. or the B. A. in Art History.
1102. Art for Non-Arts Mejors. (3). Introductory creative experiences with both fine art and craft processes. Varied activities may include drawing, painting, printmaking, sculpture, pottery, weaving and woodcrafts. Does not meet degree requirements for the B. F.A. or the B.A. in Art History.
1103. Besic Design. (3). Basic design factors of line, value, texture, form, and space in problem solving approach to stimulate student's visual perception and to encourage inventive manipulation of tools, materials, and techniques. Development of vocabulary for professional practice encouraged
through lectures, discussions, and class critique. 1204. Color Fundementels. (3). Light and color in relation to form. Mixing of colors and notation of hue, value, chroma relationships. Interaction of color, color har mony, psychology, ${ }^{202}$ and
1104. Beginning Drawing. (3). Introduction to materials and techniques of basic drawing.
1105. Figure Structure. (3). Analysis of structure of human figure; emphasis on contour, gesture, and volume. PREREQUISITE: ART 1311.
1106. World Art I. (3). Development of visual arts from prehistoric times through medieval period, their use by man as social, cultural, and educational force; brief survey of art of Far East.
2102, World Art II. (3). Continues (but does not pre-suppose) World Art I; development of visual arts from medieval period through Renaissance to present.
1107. Design I. (3). Continued study of the elements of
design, using variety of materials and methods. PREREQdesign, using variety of materials and methods. PREREQ-
UISITES: ART 1201 and 1204 , or permission of instructor.
1108. Design II. (3). Continuation of ART 2201; attention to three-dimensional problems. PREREQUISITE: ART 2201 or permission of instructor.
1109. Lettering end Leyout. (3). (Seme es CMUS 2213). Introduction to graphic design: problems involving use of typography; principles and techniques of layout; and development of roughs and comprehensives.
1110. Graphic Production. (3). (Seme es CMUS 2221). Preparation of copy for photomechanical reproduction: printing processes, halftone and line reproduction, selection and use of type and paper.
1111. Interior Drefting Prectices. (3). (2231). Introduction to equipment, standards and requirements of interior design drafting practices through lectur es and studio space planning
assignments. PREREQUISITES: ART 1201,1311. and 1314, or permission of instructor
1112. Interior Color and Composition. (3). (2232). Applica ion of color theory and design-composition to specific studio assignments. PREREQUISITES: ART 1204 and 2201, or permission of instructor
1113. Perspective Drafting. (3). (2311). Theory and practice perspective projection drafting and various applications to graphic design and architectural interiors
1114. Drawing I. (3). Advanced problems of communication hrough exploration of varied graphic media and methods PREREQUISITES: ART 1311 and 1314. or permission of instructor.
1115. Drawing II. (3). Continuation of ART 2313, emphasis on parsonal expression. PREREQUISITE: ART 2313, or permission of instructor
1116. Introduction to Printmaking. (3). Printmaking processes: relief, intaglio, planography, and stencii, focusing on relief and screenprinting.
2611 . Sculpture 1. (3). Introduction to basic materials and
1117. Photogrephy I. (3). (3224). Basic techniques and processes of black and white still photography. History and aesthetics of photography as fine art. Emphasis on peraestatics of photography as fine art. Emphas
1118. Photography II. (3). (4224). Exploration of black and white still photography as means to personal expressive statement and self-discovery. Initial emphasis on portraiture
PREREQUISITE: ART 2701 or permission of instructor PREREQUISITE: ART 2701 or permission of instructor.
1119. Architecture and the Interior Environment. I. (3).
(3101). Historical development of major European periods and styles in, primarily, residential architecture, interiors, decorative arts and furniture from early Renaissance through mid-18th century.
1120. Architecture and the Interior Environment II. (3). (3102). Historical development of major Eurcpean periods and styles from mid-18th century into 20th century; compar-
isons of American developments beginning with mid-17th century.
1121. Graphic Design I. (3). Introduction to methods and materials of graphic design, with problems which utilize visual communication. PREREQUÍSITE: ART 2213 and 2221.
1122. Graphic Design II. (3). Continuation of ART 3221 , offering further study in techniques of newspaper. magazıne, and direct-mail layout. PREREQUISITE: ART 3221
1123. Packaging and Displey I. (3). (S ame as CMUS 3223). Package designing and display techniques. PREREQUISITES:
1124. Components of Interiors. (3). (3231). Introduction to
resources of interior furnishings industry through lectures and resources of interior furnishings industry through lectures and studio assignments: wall and floor coverings: drapery fabrics and upholstery. Development of estimates for wail coverings
and window treatments. PREREQUISITES: ART 1204 and and window treatments. PREREQUISITES: ART 1204 and
1311 , or permission of instructor. 1311, or permission of instructor.
1125. Interior Design Studio I. (3). (3232). Application of material covered in basic interior design courses to theoretical designs for complete environments. Space planning and
furnishing studies developed through studio assignments. furnishing studies developed through studio assignments.
PREREQUISITES: ART 2233, 2234, and 3233 , or permission of instructor.
1126. Commercial Lighting Design. (3). (4234). Comprehensive study of lighting sources and principles, color and applications, including circuiting, switching, dimming systems. task-ambient lighting and industry resources. The Lumen Formula and Area Method of design applied through studio
assignments and lectures. PREREQUISITES: ART 2233, 2234, assignments and lectures. PREREQUOR
and 3233 , or permission of instructor.
1127. Rendering for Interiors. (3). (4233). Comparative application of variety of techniques using black-white and color mediums for interior perspective illustration. Lectures and studio assignments in line, texture, shade-shadow.
volume, color and free-hand drawing. PREREQUISITES: ART 2233, 2234, and 2312 , or permission of instructor
1128. Interior Construction Dratting. (3). (4661). Principles of building construction and their application through draftings for both residential and commercial installations. 8uilding methods and materials studied through lectures and studio
assignments. PREREOUISITE: ART 3234 or permission of assignmen
1129. Interior Cabinetwork Drafting. (3). (4662). Principles of cabinetmaking, wood joints, laminating, contouring and hardware required for their application to detail draftings for both commercial and residantial custom design. Drafting procedures studied through lectures and studio assignments. PREREQUISITE: ART 3237 or permission of instructor.
1130. A Perspective on Contemporary Design Concepts. concepts; emphasis on contemporary materials and methodology. Investigation of national and international trends on what a designer is and does within broad range of options PREREQUISITE: ART 2202.
1131. Painting 1. (3). Pretiminary course in theory and
practice of oil painting practice of oil painting
1132. Painting II. (3). Continuation of ART 3331; attention to essentials of still-life, landscape, and portratt paintıng
1133. Intaglio Printmaking. (3). In-depth study of metal plate intaglio printmaking processes: engraving. drypoint, etching,
equatint. Introduction to color intaglio and mixed media equatint. Introduction to color intaglio and mixed media including relief printing. Emphasizes personal axprassion 3352. Lithogrephy (3). In-depth study of stone lithor 3352. Lithogrephy (3). In-depth study of stone lithography
Introduction to aluminum plate litho; color litho, and mixed medie color printing. Emphasizes personal expression. PREREQUISITE: ART 2351 or permission of instructor.
1134. Art Experiences for Elementary Teechers. (3). Introduction to skills and methods for school ert programs of meteriels and ideas for children's art expression and develop-
1135. Materials and Methods in Teaching Elementary School Art. (3). Aid to future teachers in understanding child art, encouraging art expression, and preparing art teaching
materials for children. PREREQUISITES: ART 1101 (or 2101 and 2102) and 3411 .
1136. Art Experiences for Sacondary School Art Teachers. (3). Artcrafts in secondary school art program; work with equipment, supplies, processes, and ideas in art craft program. 3511. Sculptura II. (3). Problems of sculptural form as expressed in metal, wood, and related materials
35 12. Sculpture III. (3). Continuation of ART 3511 ; emphasis on techniques.
1137. Ceramics I. (3). Introduction to clay and ceramic process. Emphasis on thoughtful, purposeful exploration of medium, regarding both pottery vessel and nonvessel object. consideration to fundamental historical and aesthetic aspects peculiar to ceramics as a studio medium.
1138. Packaging end Display II. (3). Continuation of ART 3223: attention to trademark designs, package rendering and practical displays. PREREQUISITE: ART 3223 .
1139. Photography III. (3). Continuation of ART 2702. Closer examination of several key photographers work as point of departure for student work. How student work relates to raditions. PREREQUISITE: ART 2702, junior standing, or permission of instructor
4121-6121. Ancient Art of the Naar East. (3). Architecture, sculpture, painting and minor arts in Egypt and Ancient Near East.
4122-6122. Greek and Roman Art. (3). Architecture, sculpure, and painting from Aegean art to the fall of the Roman Empire.
4131-6131. Early Christian and Byzantine Art. (3). Development of architecture, sculpture, and painting through early medieval period; emphasis on Early Christian and Byzantine Art.
4134-6134. Romanesque and Gothic Art. (3). Developmant of architecture, sculpture, and painting from Carolingian (Proto-Romanesque) Period through Gothic Period.
4141-6141. Art of the Eerly Renaissance in Italy. (3).
4142-6142. Northern Reneissance Art. (3). Fifteenth Century Art in Northern Europe; emphasis on panel painting manuscript illumination and printmaking.
4143-6143. Art of tha High Ranaissance in Itely. (3). Sixteenth Century Art in Italy; highlights works of Michelangelo, Raphael, Titian, and the Mannerists.
4146-6146. Baroque Art. (3). Architecture, sculpture, and painting produced in Europe during Seventeenth Century.
4151-6151. Nineteenth Century Art. (3). Art movements of
Nineteenth Century from Neo-Classicism to Impressionism.
4154.6154. Modern Art. (3). Major developments in European painting and sculpture from 1890 's until World War II: includes Fauvism, Cubism, and Surrealism.
4156-6166. Art Since 1945. (3). Major art movements and contemporary schools of criticism from World War II to present. Major trends examined include Abstract Expres sionism. Pop Art and Earth Art
4168-6168. Modern Architecture. (3). Survey of 19 th century styles, 20 th century masters, and contamporary
developments in architecture; includes historic preservation. developments in architecture; includes historic preservation. 4162-6162. Spanish Colonial Art. (3). Art in South America, Mexico. and United States during period of Spanish Rule, and into modern ara, including folk arts
4163-6163. Pre-Columbian Art. (3). Ancient art of Mexico,
Central America and South America from about 1000 8. C. to Central America and South America from about 1000 8. C. to European contact
4166-6165. Art of the American Indian. (3). Art of North American Indians from pre-history to present.
4167-6167. Art in Americal. (3). American art: architecture, sculpture, painting, and minor arts within continental United Sates from pr
4168-6168. Art in Americe II. (3). Architecture, sculpture, painting and minor arts in continental United States from Civil War period to present.
4181-6181. Primitive Art. (3). Art of primitive Negro of Africa, aboriginal peoples of Oceania, and American Indian. 4197.6197. Topics in Art History. (1-6). May be repeated when topic varies to a maximum of 9 hours.
4201-6201. Advancad Design - Plastics I. (3). Two-dimensional and three-dimensional design in plastics employing basic mathods of castıng rasins and ther moheating processes using sheet, rod, and tube plastics.
4202-6202. Advanced Design - Plastics II. (3). Further development in creative plastics design through thermoheating process of vacuum forming, blow forming, and resin casting processes.
4205-6205. Advanced Design - Continuous Pattern Processes 1. (3). Emphasis on both theoretical and practical approaches to continuous pattern processes using various 1204, 2201, 2202.
4206-6206. Advanced Design - Continuous Pattern Processes II. (3). Continuation of ART 4205: advanced work in constructed pattern processes. PREREQUISITE: ART 4205
4207-6207. Advanced Color. (3). Indepth study of con-
temporary color concepts for designers and practicing artists. temporary color concepts for designers and practicing artists
Personal exploration of phenomena of color perception in Personal exploration of phenomena of color perception in
relation to color organization according to individual student's relation to color organization according to individual student's professional goals.
4208-6208. Advencad Design - Speciel Problems. (3). Contemporary design issues within mid-south region with specific design fields to be offered by professional designers
working in a broad scope of specializations end serving as
guest/resident/or adjunct faculty on rotational basis, when
feasible. PREREQUISITE: ART 3240 and/or permission of instructor.
4221-6221. Graphic Design III. (3). Advanced problems in fields of advertising and merchandising design. PREREOUISITE: ART 3222 or permission of instructor
4222-6222. Graphic Design IV. (3). Study and execution of graphics for television. incorporating computer animation and design for the video environment. PREREQUISITE: ART 4221 or permission of instructor.
4231-6231. Professional Practice: Graphic Arts. (3.12). Instruction by a graphic arts practitioner in one of these professional settings: design and concept, copy preparation, advertising graphics. or commercial photography May be advisor when topics vary.
4237-6237. Interior Dasign Studio II. (3). (4231). Advanced interior design. Comprehensive studio assignments including space planning, construction, lighting and complete furnishings specifications with samples. concluding with class
presentation by student designer. PREREQUISITES: ART 3234. presentation and 3237 or permission of instructor.
4238-6238. Interior Design Studio III. (3). (4232). Further advanced studio assignments in commercial and residential interior design. with class presentations. PREREQUISITES ART 3238, 4237. 4239. or permission of instructor.
4239-6239. Interior Design Business Practices. (3). (4235). Study and application of principles, procedures and business practices of interior design. Contracts, letters of agreement,
work orders, businass forms and specification writing dework orders, businass forms and specification writing dePREREQUISITE: ART 3234 or permission of instructor
4240-6240. Interior Design Internship. (3). (4236). Approved on-the-job apprenticeship expertence with cooperating
employer in an interior design firm's studio, retall store or employer in an interior design firm's studio, retall store or
designer showroom handling products of interior furnishings industry. Student's training evaluated by employer and interior design faculty. PREREQUISITE: ART 4239 or permission of instructor.
4321-6321. Drawing and Painting I. (3). Advanced drawing and painting methods; emphasis on transparent watercolor. PREREQUISITE: ART 2313 or permission of instructor.
4322-6322. Drawing and Painting II. (3). Continuation of ART 4321; attention to various mixed media. PREREQUISITES ART 2313 and 4321 or permission of instructo
4331.6331. Painting III. (3). Advanced problems in oil painting, presupposing that student has mastered basic techniques and is ready for a more experimental approach to subject. PREREQUISITES: ART 3331 and 3332 or permission of instructor.
4332.6332. Painting IV. (3). Continuation of ART 4331. emphasis on development of personal style. PREREQUISITES ART 3331, 3332, and 4331, or permission of instructor.
4341-6341. Illustration I. (3). Survey of many areas requiring services of illustrator and including preparation of book magazine, advertising, and television illustrations
4342-6342. Illustration II. (3). Continuation of ART 4341; analysis of fine art techniques of drawing and painting as they apply to commercial illustration.
4361.6361 . Advenced Printmaking I. (3). Specialization in one or two printmaking media with emphasis on development ART 2351, 3351 or 3352 ; or permission of instructor.
4362-6352. Advanced Printmaking II. (3). Advanced work in one or two printmaking media with continued development UISITES: ART 2351, 3351 or 3352, and 4351 ; or permission of instructor.
4380-6380. Museology. (3). (Same as ANTH 4380). History and development of museums; mandate and variety of institu-
tıons; significant research facilities; historical and contemtıons; significant research facilities; historical and contem-
porary collections, and educational rolas of museums in porary collections, an
contemporary society
4381-6381. Art Curatoriel Tachniques. (3). Curatorial responsibilities and functions: receiving and shipping methods, registration, physical and environmental security, research, conservation, and study of art market and publications.
4382-6382. Museum Operation. (3). (Sama as ANTH 4382). Basic aspects of museum organization, management.
exhibit planning and execution, and maintenance of collections exhibit plann
1140. Matarials and Methods in Taaching Secondary School Art. (3). (Same as SCED 3321). Understanding adolescent art expression and preparing art teaching materials for secondary school art program. PRER
and 3523 , or permission of insiructor.
4424-6424. Woven and Constructed Fiber Design I. (3). Craatıng fibar craft objects and wall hangings primarily through weaving with multiple harness looms; fiber spinning and dyeing.
4426-6426. Woven and Constructed Fiber Design II. (3) Advanced loom weaving techniques and othar fiber processes
such as macrame, stitchery and epplique. PREREQUISITE: such as macrame, stitchery and epp
ART 4424 or permission of instructor.
4611-6611. Sculpture IV. (3). Advanced work in various sculptural media. PREREQUISITES: ART 2511. 3511, and 3512 or permission of instructor.
4612-6612. Sculpture V. (3). Contınuation of 4511. amphasis on personel expression. PREREQUISITE: ART 4511 or permission of instructor
4621-6621. Ceramics III. (3). Advancad studies in caramic process and technique. Concentration on development of personal attitudes toward work.
4522-6622. Caramics IV. (3). Technical competance and the production of caremic objects raflactive of ganuinely parsona

4531-6531. Jewelry I. (3). Jewalry-making; emphasis on materials and aquipment Nature and possibilities of metals stones and other materials in terms of good jewelry design 8asic projacts in enameling, soldering, pıckling, buffing, and othar tachniques.
4532-6632. Jawelry II. (3). Second course in jewelrymaking and metal-work Study and practice in good design Work in lost wax castıng, champlave, cloisonne, and combinatıons of materials.
4611 Senior Problems. (3). Original rasearch in student's area of concentration, extent of the project to be approved by art faculty
4621-6621. Workshop in Art I. (3). Specific art problems as they apply to individual student; emphasis on basic art they apply to individual student; emphasis on basic art
concepts and creatıve experience. PREREOUISITE permission concepts and
4622-6622. Workshop in Art II. (3). Continuatıon of ART 4621, providing study of problems appropriate to need o individual student PREREOUISITE permission of instructor. 4630-6630. Topics in Studio Art. (1-3). May be repeated when topic varies to a maximum of 9 hours
4635-6635. Topics in Art Education. (1-3). May be repeated when topic varies to a maxımum of 9 hours
4641-6641. Study end Travel in Art (3 or 6). Travel to important art areas of world and specialized study under direction of faculty member of Department of Art.
4701-6701. Color Photogrephy. (3). Exploration of photographic perception in color. Survey of history and aesthetics of color photography Techniques of color photography; emphasis color photography Techniques of color photography; emphasis
on color printing PREREOUISITE: ART 2702, junior standing. or permission of instructor.
4702.6702. Photographic Meteriels end Processes. (3) Advanced technical course exploring creative potential in various contemporary and historical photography materials processes and techniques. Emphasis on aesthetic application
of those materials and techniques. PREREOUISITE: ART 2702 of those materials and tech
or permission of instructor
4711. Advanced Photogrephy Seminer. (1-3). Supervised problems course. Emphasis on student's finding personal direction within own work, pursuing that direction, and discussing it in class critique. May be repeated to a maximum
of 6 hours. PREREOUISITE: ART 3701 or permission of instructor.
4712. Photogrephy Portfolio Seminer. (1-3). Student must make photographs which will be used to produce photography book or portfolio (bound by the student) which represents coherent, indepth picture statement, and will contain written introduction. May be repeated. not to exceed 6
PREREOUISITE: ART 4711 or permission of instructor.
4721-6721. History of Photography. (3). Visual and technical developments: critical and aesthetic consideration of the photographic image

## JOURNALISM

PROFESSOR JOHN DE MOTT Chairman
Room 300. Meeman Journalism Builing

## K260 JOURNALISM (JOUR)

1700. Survey of Mass Communication. (3). (1011, 1012). Social background scope, functions, and organization of modern communication media; attention to all major mass modern communication media; attention to all mafor mass communication media. Philosophy and goals of modern journalism: its impact on governmental, social and economic
systems. NOTE: Students who have received credtt for JOUR systems. NOTE: Students who have rece/ved credt for
101IOR 1012 may not receive credit for JOUR 1700 .
1701. Elementary News Writing. (3). (2111). 8asic in struction in journalistic forms and style; use of computer in composition of news reports or articles and in solution of newswriting problems; laboratory writing exercises on computer.
1702. Editing I. (3). (3112). Practices in headline writing, editing, and news
editing problems.
1703. The Megezine. (3). (3116). Historical backgrounds, contents, purposes, and readership of general magazines, business and industrial papers and specialized journals.
1704. Survey of Advertising. (3). Exploration of creative function of advertising, emphasis on role of media
1705. Press Photography. (3) (3111). Taking pictures with news camera, developing films, making enlargements, cropping and scaling for publication. Students may bring their own cameras Open to non-majors with permission of instructor One lecture/four laboratory hours.
1706. Typogrephy. (3) (2211). Study and effective use of type, composition, engraving. stereotyping, printing and graphic design in both black-and-white and color
1707. News Feeture Writing. (3). Fundamentals of nonfiction feature writing for newspapers, magazines, company publications and broadcast news presentations. Story ideas. personality profiles, humor articles and complex, news-related features developed
1708. Editing II. (2). (3113). Emphasis on practical editing applications. Students are charged with production of The Helmsman PREREOUISITE: JOUR 2123
1709. Megezine Article Writing. (3) (3121, 3122). Introduction to free-lance writing techniques. Preparing queries and articles for submission. Generating and researching ideas appropriate for the magazine market. NOTE: Students who heve recerved credit for JOUR 3121 OR 3122 mey not receive credit for JOUR 3205
1710. Magezine Editing end Production. (3). (3117). Editing and production problems of magazines; emphasis on business. industrial, and home periodicals; headline and title writing pictorial copy layout, staff organization; and production processes. PREREOUISITE: JOUR 2200
1711. Advertising Leyout. (3) (3210). Basic techniques in laying out printed advertisement; introduction to use of advartising mat service in layout.
1712. Advertising Copy Writing. (3). (3221). Princıples of advertising psychology in relation to proved techniques for writing effective copy; approximately half of course devoted to practice in writing copy and preparing rough layouts
1713. Advertising Seles. (3). (3222). Practıcal experience in preparation and selling of completed advertisements; studen will service own clients throughout semester, using The Helmsman as a space medium.
1714. Introduction to Public Reletions. (3). (4222). Develpment, scope, and modern role of public relations; emphasis on case studies. lectures, and experimentation with major public relations tools and practices
1715. Print Medie in Public Reletions. (3). Planning and budgeting, selection and development of public relations tools Writing news releases. Writing and production of printed
materials. PREREOUISITES: JOUR 2121,3400 , and ART 2221.
1716. Electronic Medie in Public Reletions. (3). Planning and writing public relations copy for audio-visual presentations, radio, television, satellite-based communications networks, videotex, teleconferencing, computer-based communications and other electronic delivery systems. PREREOUISITES: JOUR 3400 and 3625
1717. Advanced Press Photogrephy. (3). (4008). Skills of visual communicatıon. Assignments designed for relevance to covering daily news. Emphasis on picture stories, including
text and layout. PREREOUISITE: JOUR 2520 or permission of text and la
instructor.
1718. Photojournelism Editing. (3). (3011). Emphasis on picture use and management in daily press. Potential and imitations of photography as an editorial tool. Open to upper level journalism students who do not have a concentration in photography.
1719. Redio end Television News Writing end Editing. (3). 3331 ). Processing of news for radio and television; attention o present-day style used by electronic media. PREREOUISITE JOUR 2121.
1720. Redio end Television Reporting of Speciel Events (3). (3333). Preparation and presentation of special programs such as news, sports, interviews, documentaries. PREREO UISITE: JOUR 3625
1721. History of Journelism. (3). (4005). Origin and evelopment of American journalism; students who enrol should have completed HIST 2601 and 2602 or equivalent.
1722. Reporting. (3). ( 2112 ). Gathering and writing news of he University community with assignments arranged on the Helmsman. Three lecture, one laboratory hour per week PREREOUISITE: JOUR 2121
1723. Journelism Seminar. (1). Weekly presentation by a media professional on a topic in his field of journalistic expertise. Students prepare for discussion sessions through assigned readings May be repeated for a maximum of 2 hours credit. PREREOUISITE: junior standıng
41 20. Reporting Public Issues. (3). (4245). Analyzıng and writing news reports about government, courts. energy conomy, taxes, education, environment. medicine and sci ence. Stresses relationship between current issues and public's need to be informed. Emphasis on topics vital to large
urban society. PREREOUISITE: JOUR 3720 . urban society. PREREOUISITE: JOUR 3720
4130 . Writing Internship. (3). (4002, 4003). Work in prac tical assignments at local media under supervision of qualified practitioners. NOTE: Students who have received credit for JOUR 4130 . PREREOUISITE: permission of department chairman.
1724. Advertising Strategies. (3). (4100). Researching planning. writing. scheduling. budgeting, and evaluating complete advertising campaign. Includes media selection layouts, tapes, storyboards, and preparation of detailed budget
for product or service. PREREOUISITE: JOUR 3322, 3324 .
1725. Advertising Internship. (3). (4000). Work under supervision of qualified practioners in local advertising agency, advertising department of newspaper, television, or radio station; or company advertising department. NOTE: Students who have received credit for JOUR 4130 or 4430 may no who have received credit for JOUR 4330 . PREREOUISITES: JOUR 3322 . 3324 and permission of department chairman
1726. Public Reletions Cese Problems. (3). Case studies and typical public relations problems. Planning and preparation of communications materials for various media; application of
public relations techniques. PREREOUISITE: JOUR 3421 , public
3422 .
1727. Public Reletions Internship. (3). (4242). Work experience as intern with public relations department or organization; or on team project assigned by instructor Experience includes analysis of public relations plan and credit for JOUR 4130 or 4330 mey not receive credit for JOUR 4430. PREREOUISITES: JOUR 4423 and permission of department chairman
1728. Electronic Reporting. (3). (3334). Gathering and writing of news for all electronic media (radio-TV-Cable) Emphasis on fundamentals of reporting and audio-video electronic newsgathering. PREREOUISITES: JOUR 3625 ;
COMM 3821,3801 OR COMM 3821,3823 , and 3824.
1729. Mess Communicetion Lew. (3). (4001). Origin and development of legal principles affecting freedom of expression and provisions of laws of libel, slander, copyright, and other statutes limiting communication in fields of publishing and broadcesting.
1730. Current Issues in Journelism. (3). (3332). Advanced study of recent, critical problems faced by the mass media Emphasis on interaction among media with look toward future commmunication fechnologies
4704-6704. Theories of Communication. (3). (Same es COMM 4704). Comparison of theories offered to explain character or effects of mass communication media ranging from Stimulus-Responsa Theory to Agenda-Setting Theory. 4706. Newsroom Managemant. (3). (4030). Policy and regulatory aspects of news management: personnel and regulatory aspects of news management: personnel and
technical factors governing news production and programtechnical factors governing news
ming; analysis of news operations.
1731. Journelism Profassionel Ethics. (3). Classical ap proaches to ethics presented with their application to the day to-day considerations a journalist must face in working with employers, local publics and the larger society which depends on a free and responsible press.
4710-6710. Mass Media and New Technology. (3). Scope of developing technology in mass media including cable, satellites, video recorders, video disks, lasers, optical fiber, videotext, computers and other communication devices Industry considerations and effect of new technology on society
4726-6726. Journalism Research Methods. (3). (4175) Familiarizatıon with content analysis, survey research, data analysis. and field studies as practiced by reporters, editors, and public relations decision makers. Modern research echniques and class project using computer analysis. PRE
REOUISITE: JOUR 2121 or permission of instructor REOUISITE: JOUR 2121 or permission of instructor
4800-6800. Speciel Topics in Journelism. (3). Intensive study of a single critıcal issue or current topic. May be repeated for a maximum of six hours credit.
1732. Directed Individuel Study. (1-3). Independent study and research. or practicum, or project under supervision. May be repeated for a maximum of 3 hours credit. PREREOUISITE
prior approval of department chairman.

## MUSIC

PROFESSOR DAVID R. WILLIAMS, Chairman Room 123B, Music Building

APPLICATION AND AUDITION PROCEDURES: Special application and audition procedures are required. See the description of the music programs in Colleges and Degree Programs.
PIANO PROFICIENCY: All undergraduate music students must complete a piano placement examination prior to enrolling in applied music courses in the Department of Music. All music majors must pass the piano proficiency examination before the beginning of the senior year. This may be done in either of two ways: (1) as part of the class work in MUSE 2108. Class Piano, or (2) by passing without credit the piano proficiency exam based on the student's area of major study. given once each semester. An official notice will be mailed to the student and appropriate officials upon completion of MUSE 2108 or the piano proficiency exam. After successful completion of the piano proficiency examination, music students whose major instrument is not piano may be accepted for major group or private piano instruction (Theory and Composition students may be assigned to group lessons or to private piano studios before passing the proficiency examination with the permission of their division heads and the permission of the Piano Division coordinator). Transfer students must take the proficiency examination during the first semester of residence or enroll in Class Piano at the appropriate level
COMMERCIAL MUSIC PIANO PROFICIENCY: In lieu of the above piano proficiency, all Bachelor of Music commercial music majors, with the exception of keyboard studants, must pass the commercial music piano proficiency examination prior to their final semester in the program

K307 MUSIC THEORY AND COMPOSITION (MUTC) Placement in the Music Theory sequence for undergreduetes will be determined through examination. NOTE: Courses in Composition and Electronic Music mey be repeated for credit but not for the purpose of improving the grade originelly eerned.
1001. 8esic Music Theory. (2). For students who plan to major in music but do not meet minımum standards for MUTC 1008. Not allowable as credit toward the setisfaction of requirements for the major or minor. Two laboratory hours per
1002. Aurel Music Theory. (1). Sight-singing and eartraınıng technıques using materıal studied in MUTC 1001 ;
keyboard harmony. Two laboretory hours per week. PREREOUISITE: MUTC 1001.
1008. Music Theory I. (3). (1004). Basic notatıon, scales. intervals, triads, key signatures; analysis and exploration of technical material and written exercises in historical areas of plainchant through late 16 th century. COREOUISITE: MUTC 1010. PREREOUISITE: Theory placement exam.
1009. Music Theory II. (3). (1006). Four part structures, all seventh chords, chorale harmonization figured bass realization, analysis and written exercises from historical area of 1011 PREREOUISITE: MUTC 1008,1010 eOUISITE: MUTC 1011. PR
1010. Aurel Theory I. (1). (1004). 8eginning ear training; scales intervals, triads, simple melodic lines and simple two part examples; sightsinging of combination of tonal and modal
materials. COREOUISITE: MUTC 1008. PREREOUISITE: Theory placement exam. ( $\mathrm{S} / \mathrm{U}$ only).
1011. Aural Theory II. (1). (1005). Ear training involving triads in sequence, two part examples, modulatory melodies; sightsinging of 17 th and 18 th century melodic examples.
COREQUISITE: MUTC 1009. PREREQUISITE: MUTC 1010, 1008. (S/U only).
2008. Music Theory III. (3). (1005). Continuation of four part structure, part writing and figured bass: expanded harmonic materials from ninth chords through chordal mutation; formal and chordal analysis from 8ach ihrough mid-19th century.
COREQUISITE: MUTC 2010. PRERQUISITE: MUTC 1009. 1011. 2010. Aural Theory III. (1). (1006). Ear training involving expanded har monic materials, modulatory melodies, two part examples with modulation; sightsinging of 18 th and 19th century melodic examples. COREQUSITE:
PREREQUISITE: MUTC 1011. 1009. (S/U only).
2501. Composition. (2). Class instruction in free composition; emphasis on smaller forms. May be repeated for additional credit. PREREQUISITE: MUTC 1008. NOTE: Composition taught as applied music. Students receive the equivalent of one half-
hour lesson per week. Fee for this instruction is $\$ 30.00$ per hour lesson per week. Fee for this instruction is $\$ 30.00$ per
semester.
2602. Composition. (2). Works for piano. voice, chorus, and 2502. Composition. (2). Works for piano. voice, chorus, and
small ensembles; study of style and analysis of works from small ensembles; study of style and analysis of works from music literature. May be repeated for additional credit.
PREREQUISITE: MUTC 2501 or permission of instructor. NOTE: Composition is taught as applied music. Students receive equvalent of one hour lesson per week. Fee for this instruction is $\$ 60$ per semester.
2511 . Introductory Electronic Music. (2). Emphasis on basic techniques of electronic music composition through work in tape manipulation, synthesizer operation, musique concrete;
history and aesthetics of electronic music. PREREQUISITE: history and aesthetics of electronic music. PAE
MUTC 2008 or permission of instructor. FEE $\$ 30$.
3008. Music Theory IV. (3). (3001). Continuation of late 19 th century harmonic structures; introduction of popular music and its notational symbols; introduction and use of 20th century techniques analysis and written examples from 20th
century. COREQUISITE: MUTC 3009. PREREQUISITE: MUTC century. CO
2008.2010.
3009. Aurel Theory IV. (1). (3001). Ear trainıng involving expanded 19th century harmonic considerations. 20th century chromaticism and pandiatonicism, two part examples from both 19 th and 20 th centuries; sightsinging emphasizing
melodies of 20 th century. COREQUISITE: MUTC 3008 . PREmelodies of 20 th century. COREQUISITE: $M$
REQUISITE: MUTC 2010. 2008. (S/U only).
3010. Aural Theory V. (1). (3002). Aural exploration of basic forms, cadences amd styles of music; detailed aural analysis of
modulatory elements within a piece. PREREQUISITE: MUTC
3008,3009 3008, 3009
3101. Orchestration. (2). (3002). Basic study of instruments of orchestra and band; ter minology and techniques pertaining to that study; practical application by scoring for small and large instrumental combinations. PREREQUISITE: MUTC 3008.
3009, or permission of instructor. 3102. Advanced Musical Analysis. (3). (3003). Theoretical analysis of large-scale compositions from the Renaissance to the presen. PREREQIIT: MUTC 3008, 3009
4101. Compositional Techniques of the $T$ wentieth Century.
(3). Writing course employing harmonic and contrapuntal (3). Writing course employing harmonic and c
techniques and devices from Debussy to present.
4201. Studies in Music Theory and Composition. (1-3). Directed individual or class instruction in selected areas of music theory and composition chosen in consultation with music theory ay be repeated for credit as necessary to fulfill instructor. May
specific concentration requirements
001 INDIVIDUAL STUDIES (1-3)
002 SIXTEENTH CENTURY COUNTERPOINT (2)
003 EIGHTEENTH CENTURY COUNTERPOINT (2)
005 PEDAGOGY OF THEORY (3)
006 ANALYTIC TECHNIQUES (3)
007 ADVANCED ORCHESTRATION (3)
4202-6202. Seminar: Music Theory and Analysis. (3). Advanced course in theory, counterpoint, and analysis of
literature. Contrapuntal and harmonic techniques. Research: literature. Contrapuntal and harmonic techniques. Research;
theoretical problems from pedagogical point of view; writing in theoretical problems from pedagogical point of view; writing in
strict and free styles. Recommendad as review course for strict and free styles. Recommendad as review course for
graduate students. PREREQUISITE: permission of instructor.
4203. Critical Studies in Music. (3). Directed research in music theory, history and literature; study in depth related to music theory, histiory and iterature; study in depth related to paper.
4501-5501. Composition. (2 or 4). Composition in varied forms for large and small ensembles and solo instruments; analysis of contemporary works and practical application of
techniques. May be repaated for additional credit. PREREQtechniques. May be repaated for additional credit. PREREQ-
UISITE: recommendation of upper division examining comUISITE: recommendation of upper division examinıng com-
mittee. NOTE: Composition taught as applied music. Students mittee. NOTE: Composition taught as applied music. Students
receive equivalent of one hour lesson per weak. Fee for this instruction is $\$ 60.00$ per semester.
4502. Composition for Non-Composition Mejors. (3). Class instruction in free composition for students not majoring in composition. Practical axperience in idea genaration, form,
development, and instrumentation. PREREQUISITE: MUTC development, and instrumentation. PREREQUISITE: MUUC
3008. NOTE: Composition taught as applied music. Students raceive equivalent of one half-hour lesson per week. Fee for this instruction is $\$ 30$ per semester.
4511. Intermediete Electronic Music. (2). Emphasis on basic techniques through work in tape manipulation, study of history and aesthetics of electronic music. The two hours
credit earned from this course may be utilized as composition credit earned from this course may be utilized as composition
credit toward composition concentration. PREREQUISITE: for credit toward composition concentration. PREREQUISITE: for
music majors only or with permission of instructor. FEE: music
$\$ 60.00$.
4512. Advanced Electronic Music. (2). Continuation of MUTC 4511. Emphasis on individual compositional projects. May be repeated for credit, but only two hours may be utilized
es composition credit in composition concentr ation FEE: $\$ 60$. 4699. Senior Composition Recitel. (1).

## K304 MUSIC HISTORY, LITERATURE, AND APPRECIATION (MUHL)

1101. Music Appreciation. (3). Introduction to music through study of its literature and history; sıgnificant compositions settings in order to bring about most effective understanding and enjoyment of music. Attendance at some concerts
sponsored by Music Department may be required. NOTE: May not be used to satisfy requirements for degrees in music or in music education.
1102. History of Music to 1700. (3). Development of significant musical styles; attention to individual contribution
of major composers. PREREQUISITE: MUTC 2008 or permisof major compose
sion of instructor.
1103. History of Music Since 1700. (3). Continuation of
MUHL 3301. PREREQUISITE: MUTC 2008 or permission of instructor.
1104. Piano Repertory. (3). Survey of stringed keyboard repertory from 8 ach and his contemporaries to the present. Representative works analyzed in regard to historical, stylistic,
formal and aesthetic features. PREREQUISITE: junior standing in music or permission of instructor
4004-5004. Survey of Chamber Music for Piano. (3). Study of development of works for piano and one other instrument, piano trios, piano quartets and quintets; stylistic analysis of century, and avant-garde repertory. PREREQUISITE: permiscentury, and avan
sion of instructor.
4005-5005. History end Litereture of the Orgen. (3). Literature for the organ and its effect on and interaction with organ design.
4251-6251. Collegium Musicum: Laboratory in Music History. (3). Use of lute, viols, recorders. other early musical instruments and voice in performance of early music; primary sources (acsimiles of early prints, in preparation of perperformance practice) will be used in preparation of perof improving the grade originally given.
4407-6407. The Opera and Music Drama. (3). Survey of opera before Rıchard Wagner; Wagner's music dramas and operas of his contemporaries, dramatic and musical signiftcance of each phase of development of two forms. PREREQUISITE: MUHL 3301, 3302; or permission of instructor. 4408-5408. Style Periods in Music History. (3). Music and historical data from various periods of Western musical historical data from various periods of We repeated for credit when topic varies.
history. May be repeated for
001 MEDIEVAL MUSIC
002 RENAISSANCE MUSIC
003 8AROQUE MUSIC
004 CLASSIC MUSIC
006 20th CENTURY MUSIC
1105. String Repertory. (3). Histories, texts, methods, periodicals, orchestral studies, and solo and ensemble literature of the individual string instruments.
1106. Comparative Arts. (3). Cultural activities in their interrelation with each other and with corresponding historic and economic events. Open without prerequisite to non-music majors of junior and senior standing.
4800-6800. World Musical Styles. (3). Musical styles and role of music performance in preliterate and folk societies throughout world.
4801-6801. American Folk and Popular Music. (3). Folk and popular elements in American music. Role of mass media, especially phonograph record, in utilizing and changing folk music. Historical development and interrelationships of various musical styles ranging from 19 th century minstr elsy to roots of rock and roll. Emphasis on southern Anglo-
4802-6B02. Topics in American Folk and Popular Music. (3). Characteristics and development of a particular form of American folk or popular music. Topics include the following:
001 AFRO-AMERICAN FOLK MUSIC 001 AFRO-AMERICAN FOLK MUSIC
002 BLUES
004 ANGLO-AMERICAN FOLK MUSIC
005 HISTORY OF COUNTRY AND WES
005 HISTORY OF COUNTRY AND WESTERN MUSIC
006 HISTORY OF ROCK AND ROLL MUSIC
007 HISTORY OF JAZZ
008 HISTORY OF ROC
009 MEMPHIS MUSIC
010 FOLK/POP MUSIC OF THE MID-SOUTH
1107. Studies in Music History. (1-3). Diracted individual or class study in selected areas of music history chosen in permission of department chairman. May not exceed 6 hours credit.

## K316 SACRED MUSIC (MUSA)

4101. Service Playing. (3). Practical keyboard work in performance of basic music used in liturgical and nonliturgical services. Includes keyboard harmony, modulation and simple improvisation. NOTE: Taught as applied music.
Students raceive equivalent of 2 half-hour lessons per week. Students raceive equivalent of 2 half-hour lessons per week.
fee for this instruction is $\$ 60$. OO per semester. fee for thus instruction is $\$ 60.00$ per semester.
4102. 8esic Orgen Improvisation. (2). Practical operational facility in improvised works in trio style, chorale or hymn-tune preludes in pattern styles, and embellished melodic lines with and reading from figured basses. PREREQUISITE: permission of instructor
4104-6104. Secred Music in History end Prectice I. (3). Survey of Jewish and Christian sacred music, exploring origins of styles, traditions, and current practices.
4105-6105. Secred Music in History and Practice II. (3). 4801-6B01. Studies in Sacred Music. (1-3). Directed individual or class study in selected areas of music chosen in consultation with instructor. May be repeated for credit with

## K318 APPLIED MUSIC (MUAP)

Applied music is offered at three levels: (1) major group instruction, (2) lower division, and (3) upper division. Lessons are given by members of the university faculty and by special instructors. Since the number of students who can be accepted
is limited, it is advisable that the student audition as early as is limited, it is advisable that the student audition as early as
possible to be assured a place with the requested teacher. possible to be assured a place with the requested teacher. Practice facilities are provided without ch
additional fees for the individual lessons.
All music majors must enroll in an ensemble each semester with the exception of the practice teaching semester. Nonmusic majors enrolled at Memphis State University as degree seeking students may enroll and be accepted for applied seeking students may enroll and be accepted or anstion where staft time is availablied instruction, non-music majors must simultaneously enroll and actively perticipate in a large ensemble sponsored by the
Department of Music. For additional details, see LARGE MUSICAL ORGANIZATIONS in this section of the Catalog.
Any student enrolled at Memphis State University may audition for applied jazz lessons as space permits. Any student accepted for applied jazz lessons must concurrently participate in an appropriate jazz ensemble or combo. Jazz ensemble assignments are mede following the jazz auditions during registration week at the beginning of the semester.
All jazz and studio bass majors must simultaneously be semester hours or until a level of proficiency equal to entrance into upper division is attained.
All jazz and studio guitar majors must take six semester hours of classical guitar which is the maximum allowable for credit towards the degree. If a student can meet the requirements in less time, and wishes to discontinue classical study, the
student may do so with permission of the instructor and student may do so with permission of the instructor and
consultation with the jazz and studio faculty. In the event a consultation with the jazz and studio faculty. In the event a
student cannot meet the requirements after six semester student cannot meet the requirements after six semester
hours of study, it is the student's responsibility to pursue hours of study, it is the student's responsibility to pursue
classical guitar as an elective or until such time as reclassical guitar as an elective or until such time as re-
quirements are met to the satisfaction of the guitar and jazz and studio faculty
FEES: In addition to the regular student fees, all persons taking applied music will be assessed $\$ 30$. 00 for each halfhour lesson. Students registering for one (1) semester hour credit will receive one half-hour lesson per week. All others will receive one hour lesson per week regardless of credit

REGISTRATION: Students will register for lessons in the same manner and at the same time as they register for other courses; however, a student may not be assigned to a course number until he has auditioned. Auditions are held in the Music 8uilding during the pre-college counseling, advising be scheduled in the Music Office, Room 123. Music Building. be scheduled in the Music Office, Room 123. Music Building.
Any inquiries concerning credits or course numbers should be directed to the chairman of the Department of Music.
CREDITS AND GRADES: A student may register for one or two hours credit per semester and will be assigned to individual lessons, a master class, or a combination of the two commensurate with his level of performance. Additional credit may be earned at the lower division and upper division level. Students earning more than two credits per semester will be assigned additional practice and will be expected to perform at a higher level than those students registered for fewer credits. Grades are awarded on the same basis and have the same significance as in other subjects.
REPETITION OF COURSES: MUAP courses in individual lessons and major group instruction, small ensembles, and large ensembles may be repeated for credit but not for the purpose of improving the grade originally earned
EXAMINATIONS: For an examination in applied music, each student will prepare and perform for members of the faculty of the Department of Music suitable musical selections and technical exercises of a grade of difficulty appropriate to his
standing. Examinations are held in designated rooms on days standing. Examinations are held in designated rooms on days
set aside for this purpose near the end of each semester. Credit set aside for this purpose near the end of each semester. Credit
for the course will not be awarded to any student who fails to take the examination.
1000. Applied Music Workshop. (.5). This course is required of all music majors for eight semesters and of all music education students for seven semesters. ( $\mathrm{S} / \mathrm{U}$ only).
4002-5002. Song Repertory I. (3). Survey of Italian repertory from 17th century to present. Comprehensive study of musi and poetry of the German hed. The Cycle. Recital planning.
$4003-6003$. Song Repertory II. (3). Development of French mefodie. The Nationalist schools. English song literature from Baroque to present. The American song with emphasis on the 20th century literature.
4799. Conducting Recitel. (1).
4801. Studies in Applied Music. (1-3). Directed individual or class instruction in applied eree not listed under MUAP. May REQUISITE: permission of department chairman.
MAJOR GROUP INSTRUCTION: Any student of the University may audition for lessons at the major group level except in organ; organ students must have the ability to play the piano before beginning organ instruction. A student may not receive more than four hours credit in eny one aree of major group instruction. The fee for major group instruction will be the
same as for one helf-hour lesson per week $\$ 30.00$ per same as
semester.
LOWER DIVISION COURSES: Applied music courses in the lower division include the study normally carried out during the freshmen and sophomore years. The piano or instrumental student at this level should have had several years of intensive study prior to University entrance so that he has a secure, Orgen students may begin at this level provided that they play Orgen students may begin at this level provided that they play
the pieno well and have reasonable ability in sight-reading. the pieno well and have reasonable ability in sight-reading. MUAP 1310. To be admitted to lower division study a student must first pess a quelifying examination.
must first pess a quelifying examination.

Students who fall short of the requirements for admission to the lower-division courses will be advised to register for major group instiuction until dericiencies are eliminated. Course numbers will be repeated for each semester of study.
UPPER DIVISION COURSES: Promotion to the upper division does not follow automatically after the completion of four semesters of courses in the lower division but is made only on the recommendation of the upper division examining com mittee; such a recommendetion will be mede only if the student's proficiency as a performer bears promise of future artistic and professionel qualities as a soloist. It is at this level thet the student normally begins preparation for a recital.
JUNIOR AND SENIOR RECITALS: Most degree plans include a junior and/or a senior recital. To register for recital credit. a student must be enrolled in upper division epplied music. All required recitals must be approved by the faculty. This is nor mally accomplished no later than two weeks prior to the scheduled date at which time the entire program is performed for a faculty committee. Only upon successful completion of this hearing may a student confirm the scheduled date and make arrangements for the printing of the program.
Bachelor of Music mejors with concentration in chamber music must accompany two full recitals or the equivalent
PREREQUISITE: Participation in jury examination for woodwinds, brasses. and strings. Student should register for the semester he intends to complete requirement.
For details regarding recommended and/or required recital literature see the Memphis State University Music Department Handbook.
SMALL ENSEMBLES AND CHAMBER MUSIC: Advanced students are encouraged (and for certain degree plans are required) to participate in the following groups. Selection for membership is based on audition; courses may be repeated with the approval of the student's advisor. Three one-hour meetings per week
3101. Brass Ensemble. (1). Practical applications of brass performance techniques for a small chamber ensemble, one performer to a part; survey of brass chamber music. PREREQUISITE: permission of instructor
3103. Jazz Combo. (1). Practical application of basic jazz improvisetory skills; combo experiences in all jazz styles: traditional, bop, contemporary. Audition required.
3301. Chember Music for Pianists. (1). Applied work in piano ensembles, chamber music, and eccompanying for woodwinds, brasses, strings, and vocalists.
3401. Percussion Ensemble. (1). Study and performance of selected treditional, contemporary, avant-garde and pops percussion literature. Open to students in percussion concentration and others through audition.
3402. Contemporary Chamber Players. (1). Ensemble of mixed and variable instr umentation. Performance of repertoire written since 1900 and little known works of other periods. Primary goal of ensemble: to provide experiences in solving unique performance problems of contemporary music. PREREQUISITE: permission of instructor.
3403. Orff Ensemble. (1). Study and performance of literature written for Orff instruments, including barred percussion, unpitched percussion, and recorder.
3501. String Ensemble. (1). Study and performance of string chamber music repertory. Coaching sessions weekly with a member of music faculty. Open to music majors and nonmajors through audition.
3601. Camerata Singers. (1). Small Choral Ensemble. Chamber repertory from Renaissance to present. Open to music majors and non-music majors through audition.
3602. Opera Workshop. (1-6).
3603. Opera Soloists. (1). Preparation and performance of role in major production of University Opera Theater. Audition required.
3604. Opera Production Laboretory. (1-6)
3701. Woodwind Ensemble. (1). Siudy and performance of original and transcribed works for varied combinations of woodwind instruments. Audition required.
LARGE MUSICAL ORGANIZATIONS
A minimum of eight semesters of large ensemble is required of music majors. (Exceptions to this policy are pianists with concentrations in Performance, Pedagogy, or Chamber Music; guitarists, who are requir ed to have a minimum of 6 semesters of large ensemble; Commercial Music majors in Performance, who ere required to have 8 semesters of the appropriate level jazz ensemble; and Commercial Music majors in Composition/ Arranging, who are required to have 4 semesters of the appropriate level jazz ensemble; and music education majors, who are required to have 7 semesters of large ensemble.) Generally, wind and percussion performers are to participate in an instrumental ensemble; string performers are to participate in orchestra; and vocal, keyboard, and guitar performers are to participate in a choral organization unless assigned to a large instrumental ensemble. Transter students lacking ufficient large ensemblecredits mavpartially fulfill their large unicientlarge ensemble credits may partiallyfulfitheir large onsemble requi meximy sil ensemble with a maximum of 2 credit hours of small ensemble applicable to the total large ensemble requirement. Ensemble assignments are based on audition and may be repeated. Any exception to this general ensemble assignment policy will be made after a review of petitions by the department chairman, the appropriate ensemble director, and the applied studio teacher
2001. University Concert Bend. (1).

001 UNIVERSITY CONCERT BAND Performance of traditional and contemporary wind compositions. Participants chosen from this ensemble for basketball pep-bands. Open to music majors ano non-music majors.

## APPLIED MUSIC COURSES

| Instrument | Major Group Instruction (2) | Lower Division (1-4 each) | Upper Division (1-6 each) | Junior Recital (1 each) | Senior Recital (1 each) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Trumpet | 1110 | 1111 | 4111 -6111 | 3118 (4118) | 4119 |
| Horn | 1120 | 1121 | 4121-6121 | 3128 (4128) | 4129 |
| Trombone | 1130 | 1131 | 4131-6131 | $3138(4138)$ | 4139 |
| Tuba | 1140 | 1141 | 4141-6141 | 3148 (4148) | 4149 |
| Piano | 1310 | 1311 | 4311 -6311 | 3318 (4318) | 4319 |
| Harpsichord | - | 1321 | 4321-6321 | 3328 (4328) | 4329 |
| Organ | - | 1331 | 4331-6331 | 3338 (4338) | 4339 |
| Accompanying | - | - | - | 3348 (4348) | 4349 |
| Percussion | 1410 | 1411 | 4411 -6411 | 3418(4418) | 4419 |
| Violin | 1510 | 1511 | 4511-6511 | 3518 (4518) | 4519 |
| Viola | 1520 | 1521 | 4521-6521 | 3528(4528) | 4529 |
| Cello | 1530 | 1531 | 4531-6531 | 3538 (4538) | 4539 |
| Bass | 1540 | 1541 | 4541-6541 | 3548 (4548) | 4549 |
| Guitar | 1550 | 1551 | 4551 - | 3558(4558) | 4559 |
| Harp | 1560 | 1561 | 4561-6561 | 3568 (4568) | 4569 |
| Viola da Gamba | 1570 | 1571 | 4571-6571 | 3578(4578) | 4579 |
| Voice | 1610 | 1611 | 4611-6611 | 3618 (4618) | 4619 |
| Flute | 1710 | 1711 | 4711-6711 | 3718 (4718) | 4719 |
| Oboe | 1720 | 1721 | 4721-6721 | 3728 (4728) | 4729 |
| Clarinet | 1730 | 1731 | 4731-6731 | 3738 (4738) | 4739 |
| Saxophone | 1740 | 1741 | 4741-6741 | 3748 (4748) | 4749 |
| Bassoon | 1750 | 1751 | 4751-6751 | 3758 (4758) | 4759 |
| Recorder | 1760 | 1761 | 4761-6761 | - | - |
| Jazz Trumpet | - | 1112 | 4112 | - | - |
| Jazz Trombone | - | 1132 | 4132 | - | - |
| Jazz Piano | - | 1312 | 4312 | - | - |
| Jazz Percussion | - | 1412 | 4412 | - | - |
| Jazz Bass | - | 1542 | 4542 | - | - |
| Jazz Guitar | - | 1562 | 4552 | - | - |
| Jazz Voice | - | 1612 | 4612 | - | - |
| Jazz Saxophone | - | 1742 | 4742 | - | - |

002 VARSITY BAND Concert performance of traditional and contemporary wind compositions. Participants are chosen from this ensemble for basketball pep-bands and usually have participated in Fall marching band. Open to music majors and non-music majors
2002. Marching Band. (2). Selected ensemble which performs at all home football games and occasional out-of-town games in each season. Rehearsal approximately ten hours games in each season. Rehearsal approximately ten
weekly. Open to music majors and non-music majors.
2004. University Gospel Choir. (1). Ensemble open to all students. Music includes contemporary gospel, spirituals, and gospel hymns. Serves as outlet for students interested in
developing musical and personal capacities. Open to music developing musical and personal capacities. Ope
majors as elective. Two class meetings per week.
majors as elective. Two class meetings per week.
2005. Women's Chorus. (1). Study and performance of choral works from different stylistic periods. Development of singing voice, rhythmic and sight-singing skills. Open to music and non-music majors.
2006. Men's Chorus. (1). Study and performance of choral works from different stylistic periods. Development of singing works from different stylistic periods. Development of singing
voice, rhythmic and sight-singing skills. Open to music and voice, rhythmic and
non-music majors.
3004. Univarsity Wind Ensambla. (1). Select ensemble of instrumentalists. Study and performance of outstanding repertory for wind ensembles. Open to music majors and non music majors through audition.
3005. University Orchestra. (1). Study and performance of major orchestral literature. Additional opportunities for opera, chamber-orchestral and chamber ensemble performance Audition required.
3006. University Singars. (1). Study and performance of choral works from broad spectrum of choral literature: sacred, choral works from broad spectrum of choralliterature: sacred, secular, accompanied and a cappella. Op
and non-music majors through audition.
3007. Opara Chorus. (1). Choral ensemble for oper a productions with exploration of related stage techniques. Extra rehearsals at discretion of conductor. Audition required.
001 OPERA CHORUS MSU
002 OPERA CHORUS OPERA MEMPHIS
3008. Oratorio Chorus. (1). Study and performance of major works primarily oratorio in nature. Open to music majors non-music majors and the off-campus community. Audition required.
3010. Univarsity Jazz Ensemble. (1). (3102). Study and performance of varied jazz styles, including repertory from standard big band literature as well as studio ensembles Participation in a jazz reading section may be required. Open to
music majors and non-majors through audition. This course music majors and non-majors through audition. This course
will meet large ensemble requirements for Commercial Music will meet lar
001 INSTRUMENTAL
002 VOCAL.
3011. Recording Studio Lab Ensemble. (3). To perform and record works written by students in Commercial Music program. PERFORMANCE
002 RECORDING ENSEMBLE FOR STUDIO SINGERS This course will meat large
Commercial Music majors only

## K313 MUSIC EDUCATION (MUSE)

FIELDS OF ENDORSEMENT FOR TEACHING: For students in the School Music Concantration of the Bachelor of Music in Music degree, endorsement may be obtained in Instrumental Music and in Vocal Music. Normally, a student can expect to be recommended in only one of these areas. Vocal Music applicants should be able to play piano accom paniments of moderate difficulty, should possess an adequate solo voice for school music purposes, and should schedule a variety of large choral ensembles. Instrumental Music applicants should study one instrument of major emphasis and participate in large instrumental ensembles. Students in either area may satisfactorily meet piano and voice require-
ments with completion of MUSE $210 B$ and MUSE 1113 and ments with completion of MUSE $210 B$ and MUSE 1113 and
their prerequisites. A graduation recital is required in both areas.
1100. Cless Pieno for Non-Music Mejors. (2). Beginning instruction in piano for non-music majors. Development of basic reading and performance skills. Two laboratory hours end minimum of five hours preperation per week
1101. Cless Instruction in Bress Instruments. (2). Basic performance skills and teaching techniques on trumpet. trombone, French horn, baritone horn and tuba for those who intend to teach instrumental music in schools
1103. Class Instruction in Percussion Methods. (2). Basic performance skills and teaching techniques on snare drum, timpani, and keyboard percussion instruments for those who intend to teach instrumental music in schools. Two /eboretory hours per week
1104. Cless Instruction in Woodwind Instruments. (2). Basic performance skills and teaching techniques on clarinet, flute, saxophone, oboe, and bassoon for those who intend to
teach instrumental music in schools. Two leboretory hours per week
1106. Cless Instruction in Piano. (2). Basic technique, with emphasis on sight-reading PREREQUISITE: MUTC 1001 o permission of instructor
1106. Cless Instruction in Piano. (2). Playing of songs used in school music teaching, community songs. and hymns. PREREQUISITE: MUSE 1105
1109. Class Instruction in Stringad Instruments. (1). Basic performance skills and teeching techniques on violin, viole cello and bass for those who intend to teach ir
music in schools. Two leboratory hours per week.
1110. Class Instruction in Stringad Instruments. (1). Continuation of 1109. Two /eboretory hours per week. 1111. Cless Instruction in Guitar. (2). Functional accom-
penying skills as commonly used in folk and popular music.

Basic and intermediate performance technique appropriate to the student's ability. May be repeated once for additional credit
1112. Cless Instruction in Voice. (1). Fundamentals of vocal productio
1113. Class Instruction in Voice. (1). Continuation of 1112 with more emphasis on solo singing of easy songs. Two laboratory hours per week
1116. Classroom Instruments: Guitar and Recorder. (2). Development of basic performance and teaching skills in guitar and recorder. Analysis of teaching materials and repertory applicable for elementary and secondary education. Integration of guitar and recorder into classroom music and choral music ensembles. PREREQUISITE: MUTC 1009. Open only to music majors or by special permission of instructor.
2107. Class Instruction in Piano. (2). (1107). Simpler Bach chorales, more difficult songs, and accompaniments, appro priate to the student's majo
PREREQUISITE: MUSE 1106.
2108. Class Instruction in Piano. (2).(1108) Selected easier studies and compositions by Czerny, Concone, Beethoven, Chopin, Schumann. Bartok, and others. Final examination includes materials to satisfy core requirements of the piano proficiency exam, copies of wh
PREREQUISITE: MUSE 2107
3001. Music for Children.(3). Required of all elementary education majors. Goals, materials, and methods of music appropriate for the elementary school child; music reading and playing of classroom instruments. creative movement;
activities for music appreciation.
3700. Basic Conducting. (2). Development of conducting skills. Basic baton principles. rhythmic analysis, expressive techniques, phrasing, and multi-metered problems. Class meetings require perfor ming as instrumentalist or vocalist as
well as conductor. Three c/ass hours per week. PREREQUISITE: well as conductor. Three c/as
Completion of MUTC 3008.
3702. Score Reading. (3). Realization of open score at the keyboard, vocal scores, small orchestra and large orchestra scores; clefs, transpositions. etc.; employing literature from various periods of music history
4001-6001. Orff-Schulwark for Classroom Teachers I. (3). Broad, practical introduction to use of Orff-Schulwerk approach to elementary music teaching. Development of performance leadership skills emphasized. Not open to music majors.
4002-6002. Orff-Schulwark for Classroom Taechers II. (3) Emphasis on teaching process, children's folk materials, thythmic and melodic training, development of lesson plans and Orf instuments. PREREQUISTE: MUSE 400
4201-6201. Special Problems in the Taaching of Music. (1-3). Class or individual study of problems and opportunities faced by person who teaches music in schools; for classroom teachers, music teachers, supervisors, principals, and ad-
ministrators. May be repeated, but not for the purpose of ministrators. May be repeated, but not for the purpose of
changing a previous grade, for maximum of 6 semester hours credit.
4202. Materiels and Methods of Music, Gredes K-6. (3) Aims and principles of music and of traditional and con temporary methods of teaching in elementary schools. Creative approach to rhythm, listening, instrumental and singing activities. Contemporary sy
4203. Materials and Methods of Classroom Music. (3). (Same as SCED 3322). Philosophy, methods, and materials for teaching non-performance music classes in secondary
school, grades 7-12. Includes demonstration, observations, school, grades 7-12. Includes demonstration, obs
and simulation of classroom teaching at this level.
4204. Instrumental Music in Elementary and Sacondery Education. (2). Designed to prepare the school instrumental teacher to teach basic music concepts to beginners in mixed instrumental group settings. Instruction methodologies and materials, simple instructional arranging, instr ument assign ment, and instrument maintenance stressed. Lab experience PREREQUISITE: junior standing in music.
4206-6206. Marching Band Techniquas. (2). Orgenizing and conducting the marching band; gridiron charting and marching procedures with a study of precision drill, formations 4206-6206. Music for Exceptional Children. (3). Types of exceptıonal children and implications for providing realistic musical activities in the classroom. Emphasis on use of music as a tool in reaching non-musical goals such as language development, social adjustments, motor coordination, eural
and visual perception (team taught with Special Education).
4207. Chorel Methods and Materials. (2). Selected material and methods of practical concern to the vocal-choral music specialist. Consideration of music series, scheduling techniques. voice class development, choral publishers, units of study. PREREQUISITE: junior standing in music.
4208-6208. Band Literature. (3). History and evolution of wind instruments and wind instrument playing end the history and development of the wind band and its litereture, with general background materiel on the specific composers involved.
4209. Pieno Tuning and Repair. (2). Concentreted study o the basic techniques involved in piano tuning and adjustment Some basic tools are required.
4210. Instrument Rapair. (2). Study of construction and maintenence of all common musical instruments; frequently encountered repair problems which must be hendled immediately by teacher. Some besic tools required. May berepeeted for credit when topic veries.
001 STRINGED INSTRUMENTS
002 BRASS INSTRUMENTS
003 WOODWIND INSTRUMENTS
4301-6301, Choral Arranging. (3). Prectical experience in meking arrangements for chorel ensembles end or genizetions hem, including cless performance end eveluetion of essigned projects.
4401. Music Education: Philosophical Foundations. (3). Historical, philosophical, psychological, social, and aesthetic foundations of the total education program, grades K through 12. Administrative procedures and problems. The mus
educator's role in the community. Evaluative tachniques.
4501. Besic Piano Padagogy. (3). Emphasis on elementary pieno methods including Pace, Suzuki, and class techniques. PREREQUISITE: permission of instructor
4603. Advanced Pieno Pedagogy. (3). Approaches to the teaching of piano technique, repertory, and musicianship. For upper division keyboard students. PREREQUISITE: upper division level in key
4606-6505. Principlas of Accompanying. (3). Performance
class involving practical study of instrumental and vocal class involving practical study of instrumental and vocal
standard repertory and the problems of ensemble playing standard repertory and the problems of ensemble playing.
Facility in sight-reading and ability to assimilate music rapidly. Facility in sight-reading and ability to assimilate music rapidly.
Score-reading, transposition, and figured bass realization Score-reading, transposition, and figured bass realization
introduced as skills necessary to wall rounded musicianship introduced as skills necessary to wall rou
PREREQUISITE: permission of instructor.
4606-6606. Introduction to Suzuki Talent Education for Strings. (3). Required of students who plan to serve as apprentice string teachers in the MSU Suzuki Talent Education program. Basic instruction in the Suzuki philosophy; participation with parents and children in Suzuki string classes.
4507. Organ Pedagogy. (2). Repertory materials suitable for fundamental teaching as well as methodology in techniques, analysis and registrational concepts. PREREQUISITE: permis-
4608-6608. Principles of Suzuki Pieno. (3). Suzukı philosophy applied to development of the child's abilities and the role of the teacher and parent. Siudents will analyze the technical and musical instruction of the beginning piano student PREREQUISITE: Upper division piano skills.
4509-6609. Suzuki Violin Litereture and Techniques. (3). Literature and technique taught in the Suzuki Violin School: listening ability in beginning students; analysis of pedage and material. Required of students who plan to serve as apprentice teachers in the MSU Suzuki String Program. PREREQUISITE: MUSE 4506.
4610-6610. Advenced Suzuki String Pedagogy. (3). Literature and technique taught in Suzuki Violin School: emphasis on development of advanced student; laboratory experience in MSU Suzuki Strıng Program. Requirad of students planning to
be apprentice teachers in MSU Suzuki String Program. be apprentice teachers in
PREREQUISITE: MUSE 4509.
$4511-6611$. Cless Piano Pedagogy. (3). Group instruction techniques in the teaching of beginning, intermediate, and early advanced piano. Emphasizes observation and practical application. For the piano major and/or prospectıve piano teacher. PREREQUISITE: Upper division level in keyboard or permission of instructor
4700. Instrumentel Conducting. (2). (3701). Various problems encountered in preparation and conducting of instrueach student; individual practice with the opportunity for each siudent to conduct instrumental group
hours per week. PREREQUISITE: MUSE 3700.
4701. Choral Conducting. (2), Various problems encountered in preparing and conducting traditional and contemporary lacal scores, rehearsal techniques; Individual practice with
laboratory groups. Three class hours per week. PREREQlaboratory groups. ${ }^{\text {I }}$
UISITE: MUSE 3700.
4801-6801. Taaching Music Comprahensively. (3). Methods course designed to bring music theory, history, literature, performance, composition, and analysis to bear on the teaching
of music at any level - elementary, junior high, high school, of music at any level - ele
college, and private studio.
4802-6802. Level I Orff-Schulwerk. (1-3). Basic OrffSchulwerk techniques including body movement, soprano recorder, percussion, vocal performance, improvisation and arranging. PREREQUISITE: junior standing in music education or equivalent experience

## K320 COMMERCIAL MUSIC (CMUS)

1116. Cless Instruction in Piano: Jazz/Pop/Commerciel. (2). Class instruction in jazz, pop, and commercial music piano styles: basic harmonic patterns, chord symbol realizetıon,
voicing, basicrhythmic patterns. PREREQUISITE: MUSE 1105 voicing, basic rhythmic
or equivalency exam.
1811 . Electronics Technologyl. (3). (Seme es TECH 1811). Introduction to fundamental electrical and electronic theory end devices, circuit and network theorems, with laboratory
emphasis on basic electrical measurements and the proper emphasis on basic electrical measurements and the proper use of instruments. PREREQUISITE: MATH 1213.
1117. Music Theory: Jezz / Pop/Commerciel I. (3). (MUTC 2101). Theory of jezz, jop, and commercial music styles. Basic hermonic structures, chord symbol realizetiom, melodic structures, notation, articulation, rhythmic patterns; analysis
of written end recorded jazz, pop, and commercial music: of written end recorded jazz, pop, and commercial music: trenscription of recorded meterials. Three /e
hours per week PREREQUISITE: MUTC, 1009.
1118. Music Theory: Jezz/Pop/Commerciel II. (3). Altered scales end modes, altered and extended chords, chromatic progressions. mediant relationships, poly-harmony and pen-
chrometicism. Throe lecture. one leb hours per week. PREchrometicism. Three lect
REQUISITE: CMUS 2101
1119. Commercial Music Theory Applications Lab. (2). Eartreining involving scales, modes, chord qualities, including four-voice sonorities, simple pop melody and hermony, simple chromatic melody and harmony; various types of special-effect intonetion, recognition of timbre; har monic practices of popular music, chord symbol shorthand. lead sheet reelizetion. score-reading
1120. Composition/Arranging: Jazz/Commercial I. (2). emphasis on small instrumental and vocel works, besic style end form. Mey be repeeted for additional credit. PREREQUISITE: MUTC 2601 or permission of instructor. NOTE: Composition is teught es applied music. Students receive the equivalent of one helf-hour lesson per week. Fee for this instruction is $\$ 30.00$ per semester
1121. Composition/Arranging: Jszz/Commercial II. (2). Jazz and commercial music composition and arranging with emphasis on stage and jazz band arranging techniques. Introduction to line writing Mey be repeated for additional credit. PREREQUISITE: CMUS 2501 or permission of instructor. NOTE: Composition is taught as applied music. Students receive the equivalent of one half-hour lesson per week $\mathrm{Fee}^{\prime}$ for this instruction is $\$ 30.00$ per semester.
3100 . Promotion and Management of Artists. (3). Problems involved in management and promotion of recording artists. Attention to management, recording procedures, booking, and personal appearance contracts; concert promotions and parsonal appearances es they relate to development of ertist. A portfolio will be completed
1122. Record Promotion and Sales. (3). Current practices in promotion end sale of recordings. Emphasis on radio station music formats and other methods of exposing recordings to the public. Sales portion examines wholesale, one-stops, rack, and retail store sale of recordings
1123. Anatomy of Popular Song. (3). Analysis of current popular music; techniques of text setting; choice of text and musical styles; development of hook lines. PREREQUISITE:
CMUS 2101 or permission of instructor CMUS 2101 or permission of instructor.
1124. Trends in Contemporary Music Styles and Production. (3). Various styles of current popular musical groups and artists and their influences from earlier eras; discussion of prominent "behind-the-scenes" personalities-songwriters, producers, and engineers; analysis of musical siyles and devices for purposes of developing abi
1125. Composition / Arranging: Jazz/Commercial III. (2). Individual instruction in jazz and commercial music composition and arranging for mixed ensembles and studio groups in various jazz and studio styles. standard and extended forms. May be repeated for additional credit. PREREQUISITE: CMUS 2502 or permission of the instructor. NOTE: Composition is taught as applied music. Students receive the equivalent of one hour lesson per week. Fee for this instruction is $\$ 60.00$ per semester.
1126. Production Laboratory. (1-3). (Same es THEA 3542). Preparation for and participation in departmental theatre productions. Individualized work in form of supervised laboratory situations. Running crews for season productions selected from participating sections. May be repeated for credit.
rom participating sec
001 PUBLICITY (1)
002 COSTUMES (1)
003 LIGHTS (11
005 SCENERY 11
005 SCENERY (1)
006 PROPS (1)
007 MAKE-UP (1)
008 HOUSE MANAGEMENT (1)
009 SPECIAL EFFECTS. (2). Instruction in how to safely create stage fires, explosions, smoke, rain, snow, thunder, lightning, supernatural illusions, etc. Offered alternate years. REREQUISITE: per ins in instructor
010 SOUND SYSTEMS AND DESIGN. (3). Classes and lab work. Basic electronics and system hookups. Actual equipment
use and aesthetics. Offered alternate years. PREREQUISITE: use and aesthetics. Offe
1127. Recording Studio Procedures. (4). Fundamental concepts of audio recording: development of an understanding of studio equipment and techniques, and the application of musical values in commercial production. PREREQUISITE: Permission of instructor.
1128. Studio Synthesizers. (2). Study of each module of synthesizer system; interfacing of modules and use of instrument for signal processing and compostion; correlation of audible presentation of a tone with visible wave-shape d
PREREQUISITES: TECH or CMUS 1811 , CMUS 3800 .
1129. Materiels and Techniques of Improvisation I. (3). Development of improvisation skills on solo instruments or voice; basic chord patterns, scales, arpeggios; performance
with rhythm section. PREREQUISITE: CMUS 2101 or permiswith rhythm section. PREREQUISITE: CMUS 2101 or permission of instructor.
001 INSTRUMENTAL.
002 VOICE
002 VOICE
1130. Materials and Techniques of Improvisetion II. (3). Analysis of melodic structures; motivic fragmentation and sequencing; extended harmonic structures, articulatory variation; performance in small combo settings. PREREQUISITE: CMUS 3825 or permission of instructor.

## 001 INSTRUMENTAL <br> 002 VOICE

3827. Materials and Techniques of Improvisation III. (3). Analysis and performance of music in standard styles, including bebop, Latin, third stream, soft rock, herd rock, and commercial; performance with combos and large jazz en-
sembles. PREREQUISITE: CMUS 3826 or permission of sembles. PREREQUISI
instructor.
001 INSTRUMENTAL.

## 001 INSTR

3828. Aesthetics and Analysis of Jezz and Commercial Music Styles. (2). Fundamentals of form and style analysis; study of the ertistic and commercial intentions and appropriateness of music from early popular styles to the presen
PREREQUISITE: CMUS 2102 or permission of instructor
4102-6102. Composer's Workshop: Jazz/Commercial. (3) (MUTC 4102). Composition in musical styles for various sizes of instrumental and vocal groups; writing for commercials,
arranging; recording studio techniques. PREREQUISITE: CMUS arrang
3829. 

4103-6103. Jazz and Studio Ensemble Techniques. (3).
(MUTC 4103) Jazz and studio performance styles, emphasizing arranging, ensemble technique, articulation, phrasing, recording studio techniques, and conducting.
001 INSTRUMENTAL PERFORMANCE
002 VOCAL PERFORMANCE
4201. Studies in Commercis! Music. (1-3). Class or individuel study of spacial problems in Commercial Music. Mey be study of spacial problems in Co
repeated if course content differs.
4601. Composition/Arranging: Jazz/Commarcial IV. (3). Individual instruction in jazz and commercial music com position and arranging with emphasis on advanced line writing, fusion and contemporary mainstream styles, writing for the full studio orchestra. May be repeated for additional credit. PREREQUISITE: CMUS 3501 or permission of instructor NOTE: Composition is taught as applied music. Students receive the equivalent of one hour lesson per week. Fee for this instruction is $\$ 60.00$ per semester.
4502-6502. Introduction to Film Scoring and Editing. (3) Basic problems of writing music for film; commercials, shorts, and full length productions; selection of appropriate styles; introduction to editing room equipment; assignments for 16 mm and 35 mm film; writing from a cue sheet. PREREQ UISITE: CMUS 2502 or permission of instructor
4503-6503. Music Copying and Preparation. (2). Preparation of music for performance, recording, and publication introduction to materials and calligraphic instruments; prep aration of scores and parts of all types; use of transparencies and Ozalid process. Prerequisite: basic calligraphic skills exem, permission of instructor.
4504. Entertainment Complex Administretion. (3). Fundamentals for managers of concert hall, theme parks, stadiums, nightclubs, and other venue. Topics include: talent selection and negotiation, union considerations, publicity, security, cash management and complex budgets, selection of program material and presentation
4502-6602. Introduction to Commercial Music. (3). (MUHL 4602) Music industry including copyright, royaltes, producing, labor relations, promotion, advertising, and distribution PREREQUISE: prortis
4603-6603. Topics in Commercial Music. (3). (MUHL 4503). Study of commercial music with lecturers and distinguished guests from the industry. Individual projects required. PREREQUISITE: CMUS 4602 and permission of instructor.
4800. Basic Recording. (4). Audio engineering on modern multi-channel recording equipment using commercial production techniques. Emphasis on basic skills of microphone selection and placement, console operation, editing, mixing, and the engineer's artistic involvement in the project. PRE4801. Problems in Commerciel Music. (1-3). Independent study in subjects relevant to Commercial Music. May be repeated to maximum of nine hours, but not for purpose of changing grade originally given. PREREQUISITE: Permission of instructor.
4802. Advanced Recording. (4). Advanced production laboratory in producing contemporary commercial recordings. Emphasis on signal processing, automation, advancedrecord ing, editing, and mixing techniques. Student will apply knowledge of the creative, business, and technical aspects o
the recording process to studio production assignments PREREQUISITE: CMUS 4800 and permission of instructor
4803. Advanced Studio Production and Technologies. (4). Comprehensive examination and application of emerging technologies in audio recording including audio/video production, digital recording, computer-assisted composition, CMUS 4802, and permission of instructor.
4804. Recording Studio Administretion. (3). Financial and menagerial aspects of operating a recording studio; scheduling, expansion, rate schedules and billing, hiring, securing venture capital, risk management, and providing related services. PREREQUISITE: Permission of instructor.
4805. Disc Mastering. (3). Principles, mechanics and techniques of tape-to-disc transfer. PREREQUISITE: CMUS 4800 and permission of instructor.
4831. Radio and Television Sales end Advertising. (3). (Same as COMM 4831). Relation of radio and television advertising to station, network, and station representative role of sponsors, agencies, and allied groups. PREREQUISITE CMUS 3823.
4897. Project in Commerciel Music. (3-4). Final project in
commercial music performance and composition: detailed commercial music performance and composition: detailed proposal developed by student and main advisor

001 PERFORMANCE PROJECT. (3). Project must include live and recorded performances demonstrating the student's mastery of various styles of jazz, popular, and commercial music performance.
002 COMPOSITION PROJECT. (4). Project must include music composed by the student in various styles of jazz, popular, and commercial music; live performance; music for part of an album; film score with film.
4898. Senior Project in Music Business or Recording/ Engineering. (4). Comprehensive final project which demonstrates mastery of creative, technical, or business elements of
commercial music industry. PREREQUISITES: Senior standing commercial music industry. P
and permission of instructor.
4899. Internship. (4). One semester of field work experience in selected areas of the music industry. PREREQUISITE: placement interview and permission of instructor.

## THEATRE AND COMMUNICATION ARTS

PROFESSOR MICHAELM. OSBORN, Chairman
Room 143, Theetre end Communicetion Arts Building

The Department of Theatre and Communication Arts offers concentrations in general speech and theatre, dance, broadcasting, communication, film and videotepe production, and theatre; requirements for these and in the B.F.A. degree, Theatre, Design end Technical Production, and Dance are

NOTE: Students msy taka thastre and communication srts laborstory courses (vis. THEA 3641,3542 ) $s$ s often $s \mathrm{~s}$
advisor will sllow. None of thesa courses may ba repeated for the purpose of improving the grade originally given.

## K491 THEATRE (THEA)

Professor James Keith Kennedy, Director
1212. Voice and Articulation for the Performer. (4) Especially for the actor, concentrates on voice-body mech anism as it responds to communicative image. NOTE: Student who have recerved credit for SPCH 1211 or COMM 1211 mey
not receive credit for THEA 1212.
1411. Basic Oral Interpretation. (3). Introduction to interpretation of literature in performance. To develop and heighten performer's responsiveness to his literary text.
1551. Introduction to Theatre. (3). Consideretion of all dramatic elements of theatre from viewpoint of audience Discussions of theory and practice focus on plays attended by class during semester. (See THEA 3541-008).
1561. Introduction to Design. (3). Historical and conceptua survey of basic elements of production - scenery, costumes lighting. sound - and their relation to theatrical production process
2501. Stage Movement. (3). Introduction to movement as basic element of actor's craft. Focus on recognition, development, and understanding of natural physicel actions and rhythms and their application to stage.
2502. Theatre Dance. (3). Introduction to elements of THEA 2501.
2511. Theatre Crefts. (3). Lecture/laboratory covering all phases of craft skills and equipment involved in technical theatre production.
2512. Introduction to Theatre Graphics. (3). Introduction to artistic graphic communication processes of technical theatre Includes methodology and importance of beginning sketching, drafting; costume, set, and light design; as well as poster end program graphics.
2515. Stage Meke-up. (3). Lecture/laboratory class in which fundamentals of theatrical make-up are studied through a series of make-up projects including corrective make-up antasy, mask and beard make-ups.
2530. Acting for Non-Majors. (3). Introduction to craft of acting. Development of actor's individual potential through basic technique. Performance of short scenes in class.
2531. Basic Acting Techniques. (3). First essentiel of acting study: exploration of the actor. Class exercises to develop relaxation, concentration, imagination, and improvisation skills.
2532. Charecter Development. (3). Principles of role analysis through study of subtext, character motivation, and objectives. PREREQUISITE: THEA 2531 or permission of instructor
3411. Performance of Poetic Forms. (3). In-depth study of poetic literature as interpreted by the performer. To develop
and heighten performer's sensitivity to language styles and and heighten performer's sensitivity to language styles and rhythms.
3412. Interpretetion Experiments. (3). Intensive study of theatrical imege. Creative exercises in imaginative use of space, time, and experimental script materials in directing for the stage.
3451. Directing Narrative Theatre. (3). Theory end techniques in staging of experimental forms; poetic, narretive, end compiled scripts.
3461. Interpretation of Black Literature. (3). Principles and practice relative to oralinterpretetion of poems, speeches, and plays written by 8lack Americans. PREREQUISITE: THEA
3505. Mime. (3). Techniques, composition and exploretion of
various styles of mime. PREREQUISITE: THEA 2501 or various styles of mime
3506. Movement Styles.
f the mover (3). Techniques and choreogrephy of the movement styles of verious periods, with study in such
areas as stage combat and masks. PREREQUISITE: THEA 3505 or permission of instructor.
351 1. Stagecraft I. (3). Lecture/laboratory includes theetre erminology, theatre forms, production orgenizetion, job painting, flat scenery, three-dimensional scenery and in. production to steel materials. Required lab work. PREREQtroduction to steel materials.
3512. Stagecraftll. (3). Lecture/laboratory includes shifting cenery, flying, rigging, properties design, end construction. ectures and demonstrations on color in theatre end scenery painting equipment end methods. Required lab work. PREREQUISITE: THEA 3511.
3520. Directing for Non-Majors. (3). Theoretical end practicel application of directing techniques. Short scenes staged for class. NOTE: Will not count es en elective for e mejor or minor in Theatre.
3521. Directing. (3). Basic organizational techniques of stege direction.
3531. Scene Study. (3). Development of ensemble work within scenes. May be repeeted for e maximum of 6 hours with permission of instructor. PREREQUISITE: THEA 2532.
3532. Advanced Scene Study. (3). Continuation of 3531 Attention to meteriel from modern classics. May be repeated for a meximum of 6 hours with permission of instructor PREREQUISITE: THEA 3531
3541. Performanca Laboratory. (1-3). (3401). Prectical workshops. (Repeatable for credit).

1. ACTING TECHNIQUES. (1). To be taken in conjunction OO2. ACTING TECHNIQUES. (1). To be taken in conjunction with 2531 / 2532 - Section 2 only.
2. SCENE STUDY. (1). To be teken with $3531 / 3532$ on/y.


004 STYLES (1). To be taken with $4531 / 4532$ or 6531 6532 only
O05. AUDITION PREPARATION (1). Weekly meeting to re view/critique actors' audition choices and progress
006. VOICE TECHNIQUES. (1). For students seeking critical review and help with preparation and delivery of musical

007 STAGE MANAGEMENT. (1). Lecture and training sessions precede actual assignment to departmental produc stions. Stage managers work closely with directors and oversee entire backstage operation during production run.
008 . ANALYSIS. (1). Critical perceptions of Performance (and Production) skills developed through written critiques Students evaluate at least 5 theatrical productions lafternoon or evening). May be taken in conjunction with THEA 1551 Guidelines of critique content/format avallable in Theatre Office (143).
009. NON-MAJORS. (1). For students (not theatre majors) whe are, or wish to become, involved in Season or Lunchbox productions. A theatre faculty member helps students prepare for auditions.
010. TV/FILM. (1). To be taken with $4631.6631 \mathrm{on} / \mathrm{y}$
011. TOURING (1).In conjunction with departmental ensemble groups only
012. MUSIC-THEATRE WORKSHOP (1). To be taken as part of Summer Program.
013 TOURING (2). In conjunction with departmental ensemble groups only.
014 MUSIC-THEATRE WORKSHQP. (2). Summer Program.
015 MUSIC-THEATRE WQRKSHOP. (3). Summer Program.
016. ADVANCED BALLET TECHNIQUE. (2). Intensive labora tory expertences in classical ballet technique. PREREQUISITE permission of instructor
017. ADVANCED CONTEMPQRARY DANCE TECHNIQUE (2). Iniensive experiences in contemporary dance techniques PREREQUISITE: permission of instructor
3542. Production Leboretory. (1-3). (3501). (Seme es CMUS 3542). Preparation for and participation in departmental theatre productions. Individualized work is in form of supervised laboratory situations Running crews for season productions selected from participating sections. May be repeated for credit.

1. PUBLICITY (1)
2. COSTUMES (1)

003 LIGHTS (1).
003 LIGHTS (1).
005 . SCENERY. (1)
006 PRQPS (1)
007. MAKE-UP. (1)

OOB HQUSE MANA GEMENT. (1)
009. SPECIAL EFFECTS (2). Instruction in how to sately create stage fires, explosions, smoke, rain/snow, thunder, lightning. supernatural illusions, etc. Offered alternate years. PREREQUISITE: permission of instructor
010. SOUND SYSTEMS AND DESIGN (3)Classes and lab work. Basic electronics and system hookups. Actual equipment use and aesthetics Offered alternate years. PREREQUISITE permission of instructor.
3561. Scene Design. (3). New materials and methods of rendering theatrical scene designs. Includes water color, rendering theatrical scene designs. repeated for a maximum of 6 hours with permission of instructor.
4401-6401. Interpretetion of Children's Litereture. (3). Adaptation of literature for individual and group perior mances in children s theatre and in instruction for elementary and secondary schools. Includes styles of literature, principles of performance, and techniques for performance adaptation. May be repeated for up to 6 hours credit with permission of instructor.
4411-6411. Stege Dielects. (3). Study and practice of foreign dialects for American stage Offered alternate years PREREQUISITE: COMM 1211
4421-6421. Interpretetion of Poetry. (3). Performer's response to relationship between style and views of reality in
poetry of Elizabethan-Metaphysical, Romantic, Victorian, and Modern periods. PREREQUISITE THEA 3411.
4431-5431. Interpretetion of the Novel. (3). Studies in oral interpretation of prose fiction; attention to various literary styles and structures. PREREQUISITE: THEA 3411
4441-5441. Interpretetion of Dreme. (3). Group performance in dramatic and narrative theatre styles. May be repeated for a maximum of 9 hours. PREREOUISITE: Audition for Moving Line Company.
4451-6451. Interpretetion of Shekespeere. (3). Studies in oral presentation of scenes from selected comedies, histories, and tragedies, with exploration of character and dramatic structure.
4501-6501. Advenced Movement Styles. (3). Further development of technique, and refinement of personal as well as period styles. PREREQUISITE: THEA 3506.
4502-5502. Ensemble Movement. (3). Performance troupe blends improvisational techniques, voice, mime, acting, and physical movement. PREREQUISITE: permission of instructor 4503-5503. Creetive Dremetics. (3). Basic techniques and theories for use of dramatization in elementary and secondary eduction. Includes socio-drama. dramatization of school subjects and daily concerns, and improvisation and creation of dramatic plays.
4511-5511. Lighting end Sound Mechenics. (3) (3513) Introductory study of technical principles which support areas of theatrical lighting and sound design. Includes instrumentation and equipment, electricity and electronics, control systems, operational and maintenance principles and procedures for stage electricians and sound engineers.
4515-6515. Scene Peinting. (3). Lecture/laboratory covering techniques of painting scenery for stage. Offered alternate years. PREREQUISITE: THEA 3561.
4515-6515. Technicel Direction. (3). Lecture/laboratory for theetre technicians includes production organization and safety, engineering, rigging, materials control and supply ordering. Offered alternate years PREREQUISITE: THEA 3512 4517-5517. Meteriels end Technology (3). Lecture/laboratory with general introduction to materials includes carpentry and lumber, metal-working and welding, fiberglass construction and casting, rigid and flexible foams and thermoplastics. Offered alternate years. PREREQUISITE: THEA 3512
4521-5521. Advenced Directing. (3). Opportunity to experiment with directing original plays. adaptations, and period styles. Productions of class for the Lunchbox Theatre program (May be repeated for maxımum of 6 hours.) PREREQUISITE THEA 3521
4523.6523. Children's Theetre. (3). Exploration of theories and styles of children's theatre, application of principles to problems in production and preparation of plays designed for children's audiences. May be repeated for up to 6 hours credit with permission of instructor
4531-6531, Acting Siyles. (3). Development of acting styles as influenced by environments of historical periods. (May be repeated for maximum of 6 hours.) PREREQUISITE THEA 3532
4532.6532. Advenced Acting Styles. (3). Contınued work in acting styles. (May be repeated for maximum of 6 hours.) PREREQUISITE: THEA 4531.
4541. Internship. (1-6). (4011). Supervised work in actual university, community, or professional theatre productions on internship basis. Credit varies with amount of time and responsibility involved May be repeated for a maxımum of 12 semester hours. PREREQUISITE: permission of Director of Theatre.
4551-6551. Theetre History - Clessic. (3). Shaping forces and theatrical forms in Western civilization from Greek tımes to Romanticism.
4552-6552. Theetre History - Modern. (3). Contınuation of 4551 to present.
4553. Directed Individuel Studies in Theetre. (1-3). For advanced student who wishes to do concentrated study in specific area of theatre. May be repeated for maximum of six hours. PREREQUISITE: permission of instructor
4554-6554. Costume History. (3). Survey of clothing fashions from primitive times to present; special emphasis on psychological implications of fashion change applicable to theatre
4562-6552. Costume Design. (3). Theory and techniques of costume design studied through series of design assignments Study of color, line, fabric, and rendering styles. Special consideration given to character interpretation. PREREQUISITE: THEA 4554
4564. Scenogrephy. (3). Total production design-coordination of all aspects of costume, scenery, and lighting into whole of production. (May be repeated for maximum of 6 hours.) PREREQUISITE THEA 4569.
4555-6565. Applied Costume Design. (3). Lecture/laboratory class covering all phases of the costume craft to include basic sewing techniques, basic pattern, draftıng and draping techniques, costume prop construction, millinary techniques. 4567.6567. Lighting Design. (3). Lecture/seminar/practicum investigation of art of theetrical lighting design. Includes script enalysis, design approeches and methodologies, procedures and practices for working designer, cue techniques, design styles and forms, and criticism of lighting design, RESQUISITE: THEA 4511
4568.6568. Advenced Lighting end Sound Design. (3). Lecture/seminar/precticum investigation of erts of lighting and sound design. Includes conceptual development of design. integretion with the scenogrephic process, survey of forms and styles, and special design problems. Prectical work on either mein stage or ancillary productions required PREREQUISITE: THEA 4567.
4569-6569. Styles of Design. (3). Historical evolution of, and precticel approeches to, mejor styles of production design that dominate contemporary theetre. PREREQUISITE: THEA 3561.

4571-8571. Playwriting. (3). Thaory and principles of writing plays for stage. Practice in writing either short or long play.
May be repeated for maximum of 9 semester hours. PREMay be repeated for maximum of 9
REQUISITE: permission of instructor.
REQUISITE: permission of instructor. 4581-8581. Dramatic Thaory and Criticism. (3). Major
documents in dramatic theory and criticism from Aristotle to prasent.
4582-6582. Analysis of Dramstic Litaratura. (3). Examining the script as blueprint to discover and evolve particular components which lead to its artistic fulfillment and unity. Advanced tachniques of director and scenographer used to
solve artistic/practical problems of specific plays. PREREQsolve artistıc/practıcal problems of specific plays. PREREQ.
UISITE: THEA 4551 or 4552 . UISITE: THEA 4551 or 4552.
4591. Theatra Managament. (3). 8asic box office and publicity procedures for theatre. Offered alternate years.
4592-6592. Theatre Architecture and Facilities Planning. in design and construction/renovation of theatrical spaces in design and construction/renovation of theatrical spaces and structures. Includes survey of theatre forms, historica devalopment of thaatrical structures and spaces, programming methods and procedures, specification, renovation techniques, multi-use structure concepts, and consultation procedures
and practices. Offered alternate years. PREREQUISITE: permission of instructor.
4631-6631. Acting for Film and Talevision. (3). Educational experience for actor in media of film and television, con centrating on dramatic, commercial and documentary areas.
PREREQUISITE: THEA 3532 (for acting majors) - OR PREREQUISITE: THEA 3532 (for acting majors)
COMM 3823 or 3824 or permission of instructor.
4921-6921. Elamants of Play Production. (3). Choosing the play. casting. directing, technical aspects of production as they relate to needs of people in educational and community settings.

## K493 COMMUNICATION STUDIES (COMM)

 Professor John P. Bakke, Director1211. Voica and Articulation. (3). Principles of effective voice usage. Emphasis on improving voice characteristics and
diction.
1212. Public Spaaking. (3). Principles of ethical and effective public speakıng; practice in construction and delivery of original speeches in presence of audience.
1213. Introduction to Human Communication. (3). Principles and processes underlying all human communication. Study of communication models, communication purposes and breakdowns, and variables related to interpersonal, small group, intercultural, and public communication.
1214. Introduction to Rhetoric and Communication Arts. (3). Principles, values, forms, and effects of persuasive public communication. Consideration of rhetorical styles and effects in speeches, debate
1215. Madia in Modern Sociaty. (3). Historical, cultural, technological, economic, political, and social factors which help shape mass media messages in changing American society.
1851 . Introduction to Film. (3), Film as a cultural, artistic, and social phenomenon.
1216. Argumentation and Debate. (3). 8asic principles of argumentation; emphasis on developing practical skills in analysis, reasoning, evidence, and organization of argumen tative speech; role of debating in contemporary society 2322. Persuasive Speaking. (3). Study and practice in meeting special demands of persuasive speech situation. Advanced train
effective style.
effective style.
1217. 8lack Rhetoric. (3). Speeches and rhetoric of black man's struggle in America. Emphasis on spokesmen such as Walker, Turner, Douglass, Washington, Du8ois, Malcolm X, Kıng. Carmichael, Baldwin, and Jones.
1218. Speach for the Elementary Classroom Teacher. (3). Emphasis on voice and articulation, classroom speaking, and oral interpretation of literature.
1219. Educational Communication. (3). Principles of informative communication as applied in small group, classroom, and training situations.
1220. Theories of Persuasion. (3), Principles underlying any communication designed to influence attitudes or behavior. Includes approaches to motivation, perception, message structure, attention, reasoning, audience analysis, persuasibility, and attitude change. Items for analysis drawn from speeches, advertising, radio, television and film.
1221. Discussion. (3). Study and practice of principles and techniques of discussion, dealing with current problems of wide interest and significance.
1222. Communication end Leadership. (3). Relationship between communication variables and leadership styles and effectiveness in various organizational and group settings. 3371. Freedom and Responsibility of Speech. (3). Development of freedom of speech as Western value and
attendant problems of ethical practice, limitations, and attendant pro
responsibility.
responsibility.
3373 . The Rhetoric of Social Protest. (3). Speeches, 3373. The Rhetoric of Social Protest. (3). Speeches,
pamphlets, and rhetorical techniques of selected advocates of pamphlets, and rhetorical techniques of selected advocates of
significant social change. Attention to symbols, language forms, enthymemes, and means of audience adaptation of genre of rhetoric of agitation, protest, and revolution as well as to role of rhetorical discourse in social change.
$\mathbf{3 8 0 0}$. Elements of 8 roadcasting. (3)
1223. Elements of 8roadcasting. (3). (3881). Structure of broadcasting and economic influence and constraints within which the industry functions.
3801 . TV Production Toch
1224. TV Production Techniques for Journslists. (4). For majors in the broadcast journalism sequence; basic principles and techniques of video production. Production exercises. PREREQUISITE: permission of instructor.
1225. 8roadcast Preparetion and Performance. (3). Skills required for on-air performance in broadcasting emphasizing use of voice and copy preparation; presentation of public
affairs programming, documentary narration, sportscasting, affairs programming, documentary na
1226. Radio Production and Studio Operatlons. (3). (3826). Preparation, production and evaluation of programs, including
event shows; emphasis on construction, editıng, and compila tion for broadcast use.
1227. Advanced Radio Production. (3). Intensive training in production of radio announcements, commercials, programs, and documentaries drawing upon production fundamentals. PREREQUISITE: A grade of C or better in COMM 3821.
1228. Telavision and Film Production and Aasthetics I. (4). (Same as CMUS 3823). 8asic production skills and theory: photography; audio control and recording; 16 mm cinematography; and small format video. Hands-on production exercises. PREREQUISITE: permission of instructor.
1229. Talevision and Film Production and Aesthetics II. (4). Intermediate production skills and theory in film and video; extensive production exercises. PREREQUISITE: COMM 3823 or permission of instructor.
3851 . Art of Film. (3). (1951). Introduction to theory and criticism of film art. Emphasis on selected genres, auteurs, movements, and philosophies in film history.
1230. Talevision and Cultura. (3). Television as central Major genres in the history of television programming as forms of socially shared meaning.
4011-6011. Communication in Organizations. (3). (3011). Information flow, communication systems, and communication breakdown in contemporary organizations. Emphasis on business, governmental, and institutional structures.
4013-8013. Communication in Political Campaigning. (3). (3013). Forms and effects of communication between polimass media, debates, model speeches, etc. 4101-6101 Contemporary Theories
4101-6101. Contemporary Theories of Languaga. (3). Influence of language upon behavior, limitations of language as communicative system, and relationship between language and thought.
4341-8341. Intarparsonal and Small Group Communication. (3). Advanced theory in logical, psychological, and sociological investigation of issues in small groups
4380-8380. History and Criticism of Public Address. (3). political, and cultural movements in Western Civilization. Ancient to contemporary times. May be repeated for a maximum of 6 hours.
1231. Undargraduate Saminar in Communication Arts. (3). Stresses individual work, preparation of papers and reports, and extensive class discussion; topics var
4373-8373. Interracial Communication. (3). Special problems encountered in communication among races. Readings, discussion, and field study on how prejudice, stereotypes, and self-concepts can affect communication; exploration of rhetor-
ical methods to minimize these problems. PREREQUISITE: ical methods to minimize these problem
COMM 2361 or permission of instructor.
COMM 2361 or permission of instructor. 3). Independent research in areas of special interest. Includes rhetoric, radio, television, and film. PREREQUISITE: permission of instructor.
4376.6376. Intercultural Communication. (3). Special problems encountered in communications between people of communicative interaction between and among people with different national/cultural backgrounds and functioning more effectively in multi-cultural settings.
4704-8704. Thaories of Communication. (3). Comparison of theories offered to explain character or effects of mass communication media ranging from Stimulus-Response communication media ranging
4802-8802. Internship. (1-3). Field studies in communication. Supervised practical work with government institution. private business, film company, or TV station. Written analysis
of experience required. May be repeated for maximum of 6 of experience required. May be repeated for maximum of 6
semesters hours. PREREQUISITE: permission of instructor. semes
( $\$ / \mathrm{U}$ ).
4810-6810. Broadcast Ragulation and Program Policy. (3) Effects of FCC and other governmental regulations on broad casting management and station operations. Topics: licensing, renewals,
copyright.
4811-6811. Radio and Television Programming. (3). Analysis of individual program for mats (with examples); use of this
information along with ratings and other audience research to study design of program schedules.
4812-8812. Communications Law in the Performing Arts. (3). Artist, performer, management contractual relationships; acquisition, copyright and disposition of literary and audiovisual properties; production and distribution agreements advertising law and other matters for TV, motion picture, radio 4820.8820 .
4820.8820 . Television Techniques for 8 usiness and Education. (3). Basic television studio equipment and operations; emphasis on instructional programming. Minor focus on other relevant media. Not open to radio-television-film production majors
4824-8824. Cinematography/Videography. (3). Art of visual interpretation with strong concentration in theory and techniques of lighting. Experience with professional film and
video cameras and light equipment. PREREQUISITE: COMM video
1232. 

4826-8826. Creative Editing of Film and Video Tape. (3). Techniques of editing single and double system film and video tape. Overview of total post-production process, but con-
centrates primarily on aesthetics of continuity. PREREQUISITES: COMM 3823 and 3824.
4831-8831. Radio end Television Sales and Advertising. 13). (Same es CMUS 4831). Relation of radio and television advertising to station, network, and station representative;
role of sponsors, agencies, and allied groups. 4842-8842. Telavision Studio Production. (3). Techniques of studio and small-format TV production, including staging and direction of programs. PREREQUISITE: COMM 3824.
4850-6850. Origina of Film. (3). (4852-8852). Historical
survey of motion pictures from medium's pre-history to 1940 . Emphasis on narrative film.

4851-6851. Development of Contemporary Film. (3). Historical survey of the major movaments, ganres, and themas in narrative film from 1940 to present
4853-8853. Documentary Form in Film. (3). Development of non-fiction film as rhetorical and expressive form. Analysis of individual films, genres, and filmmakers.
4854-5854. Documentary Form in 8roadcasting. (3). History and criticism of non-fiction broadcasting and cablecasting
4855-6855. International Cinema. (3). Important national film traditions in their cultural and historical contexts, focusing on filmmakers whose work has had significant influence on world cinema
4857-5857. History of American 8 roadcasting. (3). Comprehensive study of history of broadcasting industry in United States as it developed from 1895 to present. Use of primary sources.
4871-6871. Radio and Television Station Management. (3). Theories of management; special problems and situations confronting manager of broadcasting station, including personnel, operations, government regulations, programming. and sales
4892-6892. Film and Video Production. (1-3). Film and video production workshop. Class membars write, produce, direct. or assume crew responsibilities on productions. May be repeated for a maximum of 6 hours. PREREQUISITE: COMM
3824 or permission of instructor 3824 or permission of instructor.
4922-6922. Directing the Forensics Program. (3). For teacher charged with responsibility of developing and directing interscholastic orintercollegiate competitive speech programs; niques, recruiting, tournament direction, and other related concerns.
4970-6970. Screenwriting. (3). Writing for fiction and nonfiction film and television. 8asic dramatic theory, narrative structure, characterization, dialogue, adaptation and the unique demands of the audio-visual media.
4980. Honors Studies. (3). Reserved for students enrolled in Theatre and Communication Arts Honors Program. Students attend 7000 level courses to receive undergraduate Honors credit. May be repeated for a maximum of 12 hours. PREREQUISITE: Permission of Theatre and Communication Arts 4981. Senior Hon
4981. Senior Honors Thesis. (3). Supervised independent research project. Open only to students enrolled in the Theatre and Communication Arts Honors Program. May be repeated for a maximum of 6 hours. PREREQUISITE: Permission of Theatre and Communication Arts Honors Committee

## K497 DANCE (DANC)

The following 1000 level coursas may be used to fulfill the Univarsity degrea requirements for physic
Graduation from the University for details.
Graduation from the University for details.
1821 . Modarn Dance 1. (2). Introduction
1821. Modarn Dance I. (2). Introduction to modern dance techniques; emphasis on exploration of fundamentals of dance. For student with little or no previous experience in
modern dance. May be repeated for a maximum of 4 semester modern dance. May be repeated for a maxim
hours credit with permission of instructor.
1822. Modern Dance II. (2). Continuation of development of modern dance techniques; emphasis on dance combinations DANC 1821 or its equivalent.
1823. Adagio. (2).
1825. 8allet I. (2). Introduction to classical ballet technique; emphasis on barre and center floor work for student with little or no previous experience in ballet. May be repeated for a
maximum of 4 semester hours credit with permission of maximum
1826. 8allet II. (2). Continuation of classical ballet techniques;
emphasis on intermediate level adagto and allegro combinations. PREREQUISITE: DANC 1825 or its equivalent.
1827. Jazz Dance I. (2). Contemporary jazz dance techniques; emphasis on fundamentals of idiom; for student with little or no previous experience in jazz dance.
1828. Jazz Dance II. (2). PREREQUISITE: DANC 1827 or equivalent.
1831. Tap Dance I. (2). Fundamentals of beginning tap
dance; emphasis on techniques of constructing tap rhythms and routines; for student with little or no previous experience in tap dance.
1832. Tap Dance II. (2). Development of intermediate skills
and knowledge of tap dance. PREREQUISITE: DANC 1831 or equivalent.
2101. Danca Improvisation. (3). Elements of space, time and force; their interrelationships and their specific applications to movement sequences. Experiences in spontaneous development of dance phrases.
2201. Music for Dance. (3). Rhythmic foundations of basic movement patterns. Simple music notation skills. Pertinent music fundamentals and their applications to dance phrases. Techniques of accompaniment. Sources for choreography.
PREREQUISITE: 4 hours of dance or permission of instructor. 3101. History of Dence. (3). Basic features of and uses for dance and expressive movement from early cultures to present. 3201. Labanotation. (3). Introduction to Laban mathod of
recording dance; emphasis on reading skills. PREREQUISITE: intermediate level dance technique and permission of instructor.
4101. Dance Repertory. (3). Preparation and performance of excerpts from dance master works: Technical and stylistic elements of each work. May be repeated for a m
hours. PREREQUISITE: permission of instructor.
hours. PREREQUISITE: permission of instructor.
4201. Choreogrephy. (3). Elements of visual-temporal design. Sources of thematic movement material and traditional dance forms. Simple movement. Creation of an original dance. May
be repeated for a maximum of 6 hours. PREREQUISITE: be repeated for a maxi
4301. Directed Studies in Dence. (1-3). Individual study, research or practIcum. May be repeated for a max
hours. PREREQUISITE: permission of instructor.

## M500 EDUCATION (EDUC)

Professional Studies Core Courses, EDUC 2500 through EDUC 4650 (except EDUC 3701 and 3900 ). will hava a significant portion of time devoted to field and/or laboratory experiences.
2600. Divarsa Learning Environmants. (1). Qrientation to types of educational settings and their characteristics. Emphasis on educator roles and self-assessment in relation to career options.
2600. Human Devalopment end Laerning Theory. (3). Principles of human development and learning processes across the lifa span; emphasis on facilitation of laarning outcomes and social behaviors in educational settings.
3000. Instructional Planning and Delivery. (4). Instructional planning. selection, and utilization of stratagies, activities, and resources necessary to deliver instruction.
3100. Assessment and Evaluation. (2). Qverview of assessment and evaluation techniques in relationship to intended learning outcomes.
3200. Interpersonel Skills for Educators. (2). Development 3200. Interpersonel Skils for Educators. (2). Developmen PREREQUISITE: COMM 2912.
3301. Child Development and Learning Theory. (2). (Same es HMEC 3301). Principles of human development and learning processes as they relate to infancy, early and middle childhood years.
3302. Adolescent Development and Learning Theory. (2). Principles of human development and learning es they relate to adolescence.
3350. The Adult Leerner. (2). Varlety of learning patterns and developmental characteristics of adults; emphasis on applica developmental characteristics of adults; emphasis on
tions in programs or other activities for adult learners.
3401. Teaching the Exceptional Leerner. (2). Overview of field of special education; characteristics and education of various exceptionalities; emphasis on developing skills for effective taaching of exceptional child in regular classroom setting.
3501. Classroom Manegement. (2). Utilization of appropriate knowledge and skills for managing the total classroom environment; emphasis on development of skills which facilitate effective teaching through constructive management techniques.
3600. Applicetions of Instructional Media. (3). Preparation and use of instructional media in school and training settings. and use of instructional media in school and training settings. including audiovisuals, television and microcomputer appli-
cations in instruction. cations in instruction
3701. Professional Seminar. (1). Extension of student's professional preparation through a series of required and elective activities; exploration of issues and ideas related to professional development. PREREQUISITE: completion of Level I courses.
3900. Education Honors Program Colloquium. (3). Interdisciplinary colloquium on a broad education theme or topic PREREQUISITE: junior standing and permission of the EducaPREREQUISITE: juni
4250. Job and Learning Task Analysis. (2). Principles and techniques of job analysis: emphasis on delineating job and learning task requirements and determining conditions and criteria for successful job or task performance.
4350. Instructionel Design end Curriculum Development in Treining Settings. (3). Instructional design techniques and applications in training settings; principles of curriculum development, instructional delivery, and evaluation.
4550. Organization and Management of Training Programs. (3). Development and management of instructional programs in non-school settings; focus on goals, personnel, operational, and budgetary considerations. PREREQUISITE: MGMT 3110 4601. Educational Foundations for Teachers. (2). Historical philosophical, and socio-cultural dimensions of American education; focus on developıng a personal model of education which accommodates both current needs and future planning in $\mathrm{K}-12$ setting.
4650. Educational Foundations for Trainers. (2). Training systems in historical and contemporary settings, examination of their function and unique characteristics, and construction of models of future systams.
4750. Special Problems: Educetional Services. (1-3) Independent study and field projects on selected problems interests, and needs related to aducational programs in training settings.
4800. Advanced Professional Saminar. (1). Extension of studant's professional preparation through a series of required and elective activities; exploration of issues and topics related to professional development. Serves as a capstone experience for synthesizing the student's professional preparation program. PREREQUISITE: senior standing.
4860. Practicum in Training Settings. (1-3). Opportunities to gain experience in a variaty of settings; tailored to interests, needs and career pathways of student
4901. Internship for Teachers. (3-9). Full-time planned end supervised experience in a setting appropriate to the student's erea of specialization providing opportunities to synthesize knowledge and skills and to demonstrate professional competencies in an educational setting PREREQUISITE: approval in advance.
001 Student Teaching in Elementary School
002 Student Teaching in Kindergarten
003 Student Teaching in Special Education
004 Student Teaching in Secondary School

005 Student Teaching in Art
006 Student Teaching in Business Education
007 Student Teaching in Distributive Education
008 Student Teaching in Health
009 Student Teaching in Industrial Arts
010 Student Teaching in Instrumental Music
011 Student Teaching in School Music
012 Student Teaching in Physical Education
013 Student Teaching in Vocational Home Economics
4902. Intarnship for Taachers. (3-6). Additional student teaching axperience in same arsas available in 4901 .
4950. Internship in Training Sattings. (3-12). Planned and supervised full-time axparience in a training setting appropriate to the student's specialization area; opportunities to synthesize knowledge and skills and demonstrate professional competencies in an appropriata setting. PREREQUISITE: approval in advance.

## COUNSELING AND PERSONNEL SERVICES

 PROFESSOR ROBERT E. DAVIS, Chairman Room 123. Patterson BuildingThe Department of Counseling and Personnel Services offers majors at the graduate level only.

## M731 COUNSELING AND PERSONNEL SERVICES (COUN)

1661. Career Development. (3). Relationship of interests. aptitudes and careers. Includes exploration of work settings and activities to support individual career planning. Students expected to investigate work settings, rel ate this investigation to academic programs. and utilize this infor mation in individual career development.
4611-6611. Introduction to Counseling. (3). Exploration of history, principles and administration of counseling services in history, principles and administration of counselingservices applicommunity agencies, schools, business and industry. Appli-
cation of human relations experiences to personal growth and cation of human relations experiences to personal growth and inter personal relationships. Sur skills and techniques.
1662. Humanistic Interactions. (3). Human relations exercises and other personal experiences related to effective learning climates. Includes communication skills for working in groups, one-to-one relationships, and identification and referral of persons to appropriate resources.
4691-6691. Practicum in Residence Hall Steff Counseling and Advising. (3). Practical experience for residence hall staff. Instruction and supervision provided. Individual and group activities in counseling, advising, communication, and group activities in counseling, advising, commen family planning information, and student discipline. Utilizes interdepartmental disciplines. (S/U).
1663. Practicum in Leadership Development (3). Supervised experiences for developing or refining leadership skills. Pracice in leadership style, communication, motivation, negotiation, conflict resolution, and parliamentary procadures. (S/U) 4770-79-8770-79. Workshops in Counseling. (1-3). Opportunity for growth for professionals in field of guidance and counseling. Application and study in field designated by specific workshop number. Student expected to develop appropriate skills and attitudes. (S/U).
NQTE: Not more than 9 semester hours of Workshop credit can be applied toward a degree.
4773-8773. Workshop in Group Process. (1-3)
4774-8774. Workshop in Community Services. (1-3).
4775-6775. Workshop in Student Appreisel. (1-3). 4776-6776. Workshop in Career Counseling. (1-3). 4777-6777. Workshop in Pupil Personnel Services. (1-3).
4778-6778. Workshop in Counseling. (1-3). 4778-6778. Workshop in Counseling. (1-3).
$4779-6779$. Workshop in College Studen
4779-6779. Workshop in College Student Personnel Service. (1-3).
4781-8781. Counseling Stretegles for Crisis Intervention. (3). Process of crisis intervention. Study and practice in understanding crisis induced dysfunctional behavior, recognizing crisis situations, and crisis counseling procedures. Students to demonstrate competency in assisting in safely disengaging crisis participants, providing follow-up and referrel.
4782-8782. Gerontological Counseling. (3). Survey of demogrephic, developmental, physiological-sensory and psychosociel aspects of aging as applied to counseling. Experiences in use of appropriate individual and group counseling techniques for aged; emphasis on particular crisis
situations such es retirement, leisure, relocation, housing. situations such es retirement, leisure, relocation, housing.
institutionalization, dying, deeth, and survivorship.
4783-8783. Alcohol and Drug Abuse Counseling. (3). Process of counseling elcoholic and drug dependent per sons. Study in modalities of treatment, philosophy of treat ment, and
referral.

## CURRICULUM AND INSTRUCTION

PROFESSOR ROSESTELLE B. WOOLNER, Chairman

Room 424, The College of Education Building

The Department of Curriculum and Instruction offers majors and minors in ele mentary education, secondary education and a major in early childhood education.

M650 ELEMENTARY EDUCATION (ELED)
2211. Introduction to Early Childhood Education. (3). Principles and practices of eally childhood education programming and children's characteristics, infancy through third grade, in United States Supervised lab experiences in varied socio-economic day care centers, kindergartens, and 3111. Early Childhood Social Studies and Children's Literature. (3). Description, application and utilization of selected teaching methods, strategies and organizational principles for teaching social science concepts and literature to children, birth through eight years. Two lecture. two laboratory hours per week.
3121. Early Childhood Mathematics and Science. (4). Description, application and utilization of selected teaching methods, strategies and organizational principles for teaching mathematics and science to children, birth through eight years. Three lecture. two laboratory hours per week.
3241. Teaching Language Arts: Elementery School. (3). Scope and sequence of skills, assessment, organizational strategies and materials for listening, speaking and writing Inter relatedness of these skills emph asized through activities which teach children to think and communicate. Two lecture. two laboratory hours per week. PREREQUISITES: EDUC 2600, 3301
3251. Teaching Mathemetics: Elementery School. (2-3). Emphasis on methods and materials for teaching mathematics to ele
3301
3261. Teaching Science: Elementary School. (3). Emphasis on methods and materials for teaching science to the elementary school student. PREREQUISITES: EDUC 2600, 3301
3271. Teaching Sociel Studies: Elementary School. (2). Emphasis on methods and materials for teaching social studies to elementary school student. PREREQUISITES EDUC 2600, 3301
4211-6211. Comparative Study in Early Childhood Education. (3-6) Examination and comparison of early childhood programs in United States and other countries. Foreign and domestic travel may be planned. PREREQUISITE: consent of instructor
4242. Teeching Reeding: Elementary School. (2). Scope and sequence of decoding and comprehensive skills; approaches; materials; and instructional techniques appropriate PREREQUISITE QR CQREQUISITE: ELED 3241 or classroom experience.
4243. Teaching Reeding: Assessment, Correction. (2). Emphasis on assessment of reading levels, skills, materials and methods for differ ent learning styles. Clinical experience required. PREREQUISITES: ELED 3241, 4242; or SCED 4342.
4344. Teaching Reeding: Elementery School Content Areas. (2). Methods, materials, and organizational patterns by which reading skills can be developed and improved with other communication skills through integration with teaching strategies in content subjects. One lecture, two laboratory hours per week.
4411. Home School Relationships in Early Childhood Education. (3). Parent-Teacher-Child relationships; conferring, interviewing, reporting procedures and techniques; pupil evaluation methods; typical child characteristics. Supervised lab experiences in varied socio-economic day care centers, lecture hours, two lab hours per week. PREREQUISITES: ELED lecrure hours.
$3111,3121$.

## M670 SECONDARY EDUCATION (SCED)

The methods courses in high school subjects include: objectives, content, and grade placement of subject; tools of instruction, organization of courses; and teaching procedures and practices. Field/laboratory experiences required
3321. Materials end Methods in Secondery Art. (3). (Same as ART 4421).
3322. Materials and Methods in Secondary Music. (3). (Same as MUSE 4203).
3331. Teaching Methods and Curriculer Principles Applied to Physical Educetion. (3). (Same as PHED 3807).
3332. Materiels and Methods in Health Education. (3).
(Seme es HLTH 3102 ).
3341. Materiele end Methods in Secondery English. (3).
3346. Meterials and Methods in Secondary Speech (3).
3346. Mstarials snd Mathods in Sacondery Foreign Lsngusge. (3).
3361. Materials and Methods in Sacondery Methemstics. (3).
3362. Materiels and Methods in Secondsry Scienca. (3). 3371. Matarials snd Methods in Secondary Social Studies. (3).
3376. Mathods of Teeching Shorthand. (2). (3361)
3377. Methods of Teeching Typawriting and Offica Practice (2). (3361).
3376. Methods of Teaching Bookkaaping, Accounting, and Dsts Procassing. (2). (3362).
3379. Mathods of Tasching General Business, Economics. Businsss Law, snd Sslesmanship. (2). (3362).
3360. Materials and Methods in Distributive Education. (3). (Same as DTED 4630).
3363. Materials and Methods in Secondary Home Economics. (3). (Seme as HMEC 3363).
3364. Materials and Methods in Secondary Industrial Arts. (3). (Same as VTED 4210).
4341. Teaching Literature for Adolescents. (3). Theories end techniques of teaching literature for adolescents at secondary level; survey and analysis of appropriate fiction. drama, and poetry for teenage reader.
4342. Teaching Reading: Secondery Content Areas. (2). Methods, materials. and organizational patterns by which reading skills can be developed and improved with other communication skills through integration with teaching communication skills throug
4441. Secondary School Curriculum. (2). Typical and innovetive curricular programs for secondary schools.

M675 CURRICULUM AND INSTRUCTION (CIED)
1201. Reeding Skills for University Students (1-3). Designed to improve college students' reading skills. Clinical laboratory approach: individual diagnostic/prescriptive prolaboratory approach: inchviduadenagnostic/ prescriptive programs devised or each student. Emphasizes vocabulary. comprehension, word attack, critical reading skills. increased
reading rate, and a variety of study techniques. NOTE: Credit for this course may not be counted toward any degree unless prior permission has been obtained from the dean of the college in which the degree will be granted. "T" grades will be used in this course.
3901. Special Problems in Instruction. (1-5). Individual investigation in area of instruction. PREREQUISITE: experience es teecher or satisfactory evidence of being qualified to benefit from course.
4306. Educetional Methoda for Adult Education. (3). Emphasis on trends, instructional and resource materials, and instructional techniques used in adult educational programs.
4701-6701. Workshop in Curriculum end Instruction. (19). Various areas of curriculum and elements of instruction explored. Active student participation included. See Schedule of Clesses for specific topic. Repeatable for credit, but.
more than 9 semester hours for any one topic. ( $\mathbf{L} / \mathrm{U}$ ).
4761-6761. Aerospace Educetion in Schools. (3). Aerospace content and flight experiences. Emphasizes classroom application
4950-6950. Selected Topics in Curriculum and Instruction. (1-3). Current topics in areas of curriculum and instruction at ell levels. May be repeated with change in topic and content. See Schedule of Clesses for specific topic.

## DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND SUPERVISION <br> PROFESSOR FRANK W. MARKUS, Chairman <br> Room 101, The College of Educetion Building

The Department of Educational Administration and Supervision offers majors at the graduate level only.

## FOUNDATIONS OF <br> EDUCATION

PROFESSOR CARLTON H. BOWYER,

## Chairman

Room 404, The College of Educetion Building

The Depertment of Foundations of Educetion offers majors at the graduate level only.

M700 EDUCATIONAL FOUNDATIONS (EDFD)
4006. Special Problams in Cultural Foundations of Education. (1-3). Individual investigation end report of specific problem under direction of faculty member. PREREQUISITE: permiasion of instructor.
4012-6012. History of Amarican Education. (3). Development and growth of educational practices, institutions, and theories in United States from colonial period to present.
4051-6051. Anthropology and Education. (3). (Sama as
ANTH 4051\%. Culturel transmiaaion process: emphasis on
idantifying diffarant bahavioral, cognitiva, and laarning styles of various athnic groups within Amarican sociaty, salectad third world countrias and U. S. subcultural groups within public aducetion systam.

## M710 RESEARCH METHODOLOGY AND

 STATISTICS (EDRS)4518. Special Problems in Educationel Massurement. (13). Individual investrgation and raport of spacific problem undar direction of faculty mamber. PREREQUISITE: parmission of instructor
4630-6530. Microcomputars in Education: Theoretical and Tachnical Foundations. (3). History, davalopmant, end stetus of microcomputars in aducation and introduction to tha tachnical knowladga end skills naadad to oparata microcomputers for specialized educational applications. Prerequisite knowledge for more advanced computer-related training in different education specialty areas.
4519. Fundamentels of Applied Statistical Methods. (3). Use of statistical techniques in education end behavioral sciences; emphasis on practical use and interpretation of concepts. Self-instructional
4520. Fundementals of Applied Research. (13). Basic research designs, problem of replicability, and methodology
used in proposing and reporting research; emphasis on referencing and interpreting research literature.

## M720 EDUCATIONAL PSYCHOLOGY (EDPS)

2111. Human Growth and Development. (3). Life-span approach to principles and processes of human growth end development.
2112. Special Problems in Educational Psychology. (1-3). Individual investrgation and report of specific problem under
direction of faculty member. PREREQUISITE: permission of direction of faculty member. PREREQUISITE: permission of instructor.
2113. Humen Development: Maturity and Aging. (3). Survey of intellectual/cognitive changes, psychosocial and psychoportions of the life span and their implicátions for education.

## HEALTH, PHYSICALEDUCATION, AND RECREATION

PROFESSOR MELVIN A. HUMPHREYS, Chairman
Room 106. Field House

Majors and/or minors are offered in (1) Health, (2) Physical Education, end (3) Recreation and Park Administration.

## M740 HEALTH (HLTH)

1102. Personal Heelth. 13). Physiologicel basis of correct living, including fundamental biological facts; psychological aspects of human behavior as they effect individual health conduct end mental hygiene; agents of disease and modern scientific methods of controlling them.
1103. Introduction to Community Heelth. (3). Purpose, roles, responsibilities and services of community health agencies; environmentel health, sanitetion, public health
1104. Materiels and Methods in Health Educetion. (3). (Seme es SCED 3332). Methods, materials, and resources for health teaching; emphasis on improving heelth behavior through sound health teaching.
1105. The School Heelth Program. (3). Historical and philosophical study of growth and development of health education, including school health programs, heelth services,
healthful school environment and health instruction.
1106. Elementary School Health Education. (3). School heelth program involving health services, heelthful school living, health screening. home and school safety; health first aid with CPR.
1107. Chronic and Communicable Diseases. (3). Modern concepts of disease; etiology, screening, detection, prevention and control of common communicable and chronic diseases. 4102. Critical lssues in Heslth. (3). Critical and controversial issues of health explored.
4182-6162. Health Aspects of Gerontology. (3). Current issues and trends in gerontology on the heelth and quality of life of the aging
4202-20-6202-20. Workshop in Health. (1-6). Selected phases of heelth and heelth education through group study. Indepth study in areas of interest to persons in heelth education and related fields. (S/U).
4203-6203. Workshop in Death and Dying. (1-3),
4204-6 204. Workshop in Sexuality Education. (1-3).
4206-6206. Workshop in Drug Education. (1-3).
4302-6302. Observation in Community Health Agencias. (3). Introduction to purposes, objectives, functions end programs of community health and welfare egencies, with
opportunities to visit public and private egencies and interview opportunities to visit public and private egencies and interview
verious representatives. verious representatives.
1108. Practicum In Public Health Education. (1-6). Field
experience in public health educetion. Practical work under experience in public health educetion. Practical work und
supervision of government or voluntery egencies. ( $S / U$ ). 4602. Problams in Haalth Education. (1-3). Independent study or research project on selected health problems or study or research project on selected healt
issues. PREREQUISITE: consent of instructor.

4602-6602. Orgsnization and Administration in Public Health. (3). Gasic functions, principlas, and proceduras of organization and administratıon as applied to haalth. Emphasis on ralationship and rasponsibilitias of parsonnal in planning, promoting, improving and evaluating total haalth activitias in femily-cantared health sarvices.
4802-6802. Environmentsl Haelth. (3). Survay of complex association batween environment and human productivity, haalth, and happinass. Environmental factors within tha ganeral framework of acological parspectiva in which tha interralationships of all living things to one anothar affact human growth and well being
4902. Salactad Topics in Heelth. (1-3). Currant topics in health. May be rapaatad with change in topic and contant. Sae Schedule of Classes for spacific topics

## M745 SAFETY EDUCATION (SAFE)

2102. First Aid end Emergency Care. (3). (HLTH 2102). Safety skills and techniques of immediate and temporary care in event of injury or sudden illness. Successful completion certificate.
2103. Safety Education. (3). (HLTH 2202). Causes of accidents and action designed for prevention of accidents in home. school, and community. Content and materials for safety education in school instructional program
2104. Water Safety Instructor. (3). (PHED 2703). Analysis, practice, and teaching of swimming and life saving skills and general' water safety practice. PREREQUISITE: PHED 1722.
2105. Cardiopulmonery Resuscitation and Emergency Life Support. (3). Basic life support techniques of Cardiopulmonary Resuscitation and other emergency life support situations.
Successful completion qualifies siudent for certification in Successful completion qualifies student for certification in
basic life support course Cardiopulmonary Resuscitation (CPR) and Basic First Aid by American Red Cross.
2106. Prevention end Cere of Athletic Injuries. (3). (HLTH 3502). Practical and theoretical aspects of treatment of athletic injuries in athletic training program, supplies, trainıng table, therapeutic equipment, and techniques in conditioning and banda

## 4207-620

4207-5207. Workshop in Driver and Traffic Safety Education. (1-3). For in-service and prospective teachers of grades 7-12. Improvement of teaching-learning process as applied to driver and traffic safety education. Attention to common elements of teaching methodology, utilization of appropriate driver and traffic safety education materials and resources and evaluative criteria. (S/U).
4335-6336. Driver and Traffic Safety Education I. (3).
(SCED 3335 ). Basic knowledge and skills to deal with ISCED 3335 ). Basic knowledge and skills to deal with
problems of vehicular traffic. Defensive driving and driver improvement techniques stressed. Students desiring teacher certification must enroll concurrently in SAFE 4336 for one semester hour in order to complete laboratory requirements. 4336-6336. Driver and Traffic Safety Educetion - Lab I. (1). Laboratory experiences dealing with classroom and in-car instruction. Required for all students desiring certification in driver education. To be taken concurrently with SAFE 4335. Two hours each week T6A.
4337-6337. Driver and Traffic Safety Education II. (3). (SCED 3336). Advanced driver and traffic safety educational activities. Includes study of current research in accident causation and prevention. Students desiring teacher certification must enroll concurrently in SAFE 4338 for one semester hour in order to complete laboratory requirements
4336-6336. Driver end Traffic Sefety Education - Lab II. (1). Laboratory experiences dealing with classroom. in-car multi-vehicle range and simulation instruction. To be taken concurrently with SAFE 4337. Two hours each week TBA.
4902. Selected Topics in Safety Education. (1-3). Current topics in safety education. May be repeated with change in topic and content See Schedule of Clesses for specific topic. 4922. Emergency Medical Technology. (9). Pre-hospital emergency care for the Emergency Medical Technician. Recognition and treatment of traumatic and nontraumatic injuries, medical emergencies; observations of local emergency medical service providers. Successful completion will qualify student for State Certification Examinations. PREREQUISITES:
Junior standing, SAFE 2102 and 3302 ; or consent of instructor.

## M750 PHYSICAL. EDUCATION (PHED)

Required Physical Education ectivity courses are to be selected from the courses numbered 1000 through 1941. NOTE1: The prerequisite for each advanced activity course is the introductory course or its equivalent.
NOTE 2: Any student except those with a major or minor in Physical Education has the option of taking these activity courses for a letter grade or on a credit/no credit basis. Students mejoring in the Fogleman College of Business and Economics should check with their adviser before registering on a credit-no credit basis.
NOTE 3: PHED 1001 (Figure Control/Conditioning) mey be repeated once for credit. All other physical ectivity courses listed below may be repeated when title and content vary.
NOTE 4: Dance courses (DANC prefix) at the 1000 level in the Department of Theatre and Communication Arts mey be used to meet the University physical activity course requirements. 1000. Salected Physical Education Activities. (1-3). Current activities in physical education. May be repeated with e change in topic.
1001. Figure Control and Conditioning. (2).

001 JOGGING
003 CONDITIONING FOR VARSITY SPORTS
1002. Fitness for PHED Majors. (2). Introduction to the components of physical fitness with consideration given to eveluation processes, program development end techniques of skill performance.
1201. Adeptive Activity. (2). Mey be repeated for a maximum of 4 hours.
1202. Juggling. (2).
1301. Weightlifting. (2).

001 MACHINES
002 FREE WEIGHTS AND CONDITIONING
003 POWER WEIGHTLIFTING
1331. Camping. (2).
001 BACKPACKING
1332. Advanced Cemping. (2).

001 ROCK CLIMBING
OO2 MOUNTAINEERING
003 CAVING
1361 . Equitation. (2).
001 WESTERN STYLE
001 WESTERN STY
1412. JUDO. (2).
1412. JELF DEFENSE TECHNIQUES
1431. Wrestling. (2).
1441. Karate. (2).
1442. Advanced Karate. (2).
1451. Boxing Skills. (2).
1461. Fencing. (2).

001 KENOO
1501. Tennis. (2).
1502. Intermediate Tennis. (2).
1503. Advanced Tennis. (2). (1502).
1521. Racquetball. (2).
1522. Intermediate Racquetball. (2).
1623. Advanced Racquetball. (2). (1522).
1531. Handball. (2).
1541. 8adminton. (2).
1551. Archery. (2).
1561. 8owling. (2).
1562. Intermediate 8owling. (2).
1671. Golf. (2).
1572. Intermediate Golf. (2).
1573. Advanced Golf. (2). (1572).
1581. Recreational Games. (2).

001 NEW GAMES
1621. Gymnastics. (2).

002 WOMEN'S EVENTS
003 CHEERLEAOING STUNTS ANO TUMBLING
004 STUNTS AND TUMBLING
1622. Advanced Gymnastics. (2).

001 MEN•S EVENTS
002 WOMEN'S EVENTS
1651. Riflery. (2).
001 HOME FIREA
1711. 8eginning Swimming. (2).
1712. Elementary Swimming. (2).
1713. Intermediate Swimming. (2).
-1722. Swimming - Lifesaving. (2).
-1741. Advanced Swimming. (2).
001 CONOITIONING THROUGH S
001 CONOITIONING THROUGH SUIMMING
*1761. Springboard Diving. (2).
-1771. Scuba. (2).
-1772. Advancad Scuba. (2).
-1781. Boeting and Small Craft. (2).
001 KAYAKING
003 SMALL BOAT CRAFTING
004 SAILING
005 CANOEING
1811. Rhythms for Elementary School. (2).
1812. Square and Round Dance. (2). American square, round and contra dance.
1813. Folk and Social Dance. (2). International folk dance and American ballroom and social dance.

## 1921. Basketball. (2).

1922. Volleyball - 8asketball. (2).
1923. Vollayball. (2).
1924. Intermediate Volleyball. (2).
1925. Soccar and Fieldsports. (2).
1926. Track and Field Events. (2).
-The prerequisite for these courses is Physical Education 1713
1927. Team Sports (8asket ball and Vollayball). (2). Knowledge, skills and techniques for prospective physical educator.
1928. Team Sports (Soccer, Touch Football, Track and 2006. Team Sports (Soccer, Touch Football. Track and
Fiald). (2). Knowledge, skills and techniques for prospective physical educator.
1929. Individual Sports (Badminton, 8owling, Archery and Recraatlonal Games). (2). Knowledge, skills and techniques for prospective physical educator.
1930. Individual Sports (Tennis and Golf). (2). Knowledge, skills and techniques for prospective physical educator.
1931. Stunts, Tumbling end Gymnestics. (2). Techniques and skills in stunts, tumbling and gymnastics; emphasis on selection, utilization of spotting skills, characteristics of skills and performance assessment of students K-12.
1932. Dance (Elemantary, Folk and Squara). (2). Skills and knowledge for prospective physical educator.
1933. Principles of Coaching. (2). Facats, responsibilities end knowledge essential for the articulation of athlatic programs within the educational setting for student-coach.
1934. Fundamentals and Techniques of Football. (2). Coaching techniques, training and conditioning methods appropriate to football.
1935. Fundamentals and Techniques of Basketball. (2). Coaching techniques, training and conditioning methods appropriate to basketball.
1936. Fundamantals and Tachniquas of Track and Field. (2). Coaching techniques, training and conditioning methods appropriate to track and field
1937. Fundamentals and Techniques of 8aseball and Softball. (2). Coaching techniques, training and conditioning methods appropriate to baseball and softball.
1938. Coaching Volleyball. (2). Coaching techniques, training and conditioning methods appropriate to volleyball.
1939. History and Principles of Physical Education. (3). Origin and nature of modern physical education as developmental experience and medium of education. Scientific and
philosophical principles of physical education philosophical principles of physical education
1940. Adaptad Physical Education. (3). Lectures. demonstrations. and problems of mechanics of physical deformities and their causes; abnormalities of spine, feet, and other postural and functional conditions; and methods of class organization. Two lecture hours per week, plus laboratory periods to be arranged.
1941. Kinesiology. (3). Analysis of bodily movements in terms of the muscular forces operating on bones. PREREQUISITES: BIOL 1631 and 1632 .
1942. Physiology of Exercise. (3). Scientific basis of physiological principles of various systems and organs of the body during muscular activity. Emphasis on principles of motor
performance and training. PREREQUISITES: BIOL 1631 and performance and training. PREREQUISITES: BIOL 1631 and
1632 .
1943. Motor Learning and Development. (3). Principles of motor development and learning and their relationship to motor learning and perfor mance.
1944. Physical Education for Young Children. (2-3). Physical education for early childhood through 6th grade; philosophy. program planning and practical experience; observing and directing play activities for children. Laboratory experiences to be arranged.
1945. Teaching Methods and Curricular Principles Applied to Physical Educetion. (3). (Same as SCED 3331). Application of teaching methodologies and curriculum development principles to physical education programs K-12. Laboratory experiences required.
4102-6102. Workshop in Physical Educetion, Sport and Dance. (1-6). Selected phases of physical education, sport or dance through group study. Indepth study of area of interest and need for physical education teachers, coaches and administrators. Maybe repeated with a change in topic. (S/U). 4204. Tests and Measurements in Physical Educetion. (3). Measurement techniques, tools and resources and their
application to assessment of physcial performance and fitness factors. Laboratory experiences required. PREREQUISITE: EOUC 3100.
1946. Problems in Physical Education. (1-3). Independent study and/or research project on selected physical education study and or research project on selected physical education problem, ins
1947. Organization and Administration of Physical Education. (3). Administrative problems of physical education, including curriculum, facilities, buying and caring for equip-
ment. general class organization, and organization of inment. general clas
tramural program.
tramural program.
$4613-6613$. Manegement and Care of Athletic Facilities and Equipment. (3). Modern techniques and procedures used in management of interscholastic and intercollegiate athletic facilities. Additional emphasis on selection and care of appropriate functional athletic equipment.
1948. Selected Topics in Physical Education. (1-3). Current topics in physical education. May be repeated with change in
topic and content. See Schedufe of C/asses for specific topics.

## M760 RECREATION (RECR)

2105. Introduction to Recreation end Parks. (3). Nature of recreation experience and its importance to the individual: influence of leisure on society; public, voluntary, military and commercial delivery systems for recreation and park services. 2205. Youth Service Organization. (2). Introduction to agencies servicing leisure time needs of children and adults.
Emphasis on YMCA, YWCA, CYO, JCC, BSA, and GSA. Objectives, organızation, program, and membership of principal national youth agencies.
2106. Introduction to Therapeutic Recreation. (3). Theoretical and philosophical foundations of therapeutic recreation, history of therapeutic recreation, concepts of illness and
disability, role of the professional recreation therapist, and survey of therapeutic recreation services and settings.
2107. Outdoor Education. (2). (3705). Philosophy, modern trends, park interpretation, administration, program content and methods of leadership in outdoor aducation activitias. Opportunities for field trips to practice leadership skills
2108. Public, Privata and Commercial Recreation Services. (3). Public, private and commercial recreation agencies; evaluation of overall range of recreation units; critical study of fundamental differences among these delivery systems.
2109. Philosophy and Principles of Recreation. (2). Work, leisure, play, and recreation; attention to sound principles of recreation.
2110. Techniques in Tharapeutic Recreation. (3). Basic therapautic racreation methods emphasizing leadarship and intarvention techniques, assessmant of client needs, activity analysis, program planning, and evaluative procedures.
2111. Resource Management in Recreation. (3). (3405). Management, operation and maintenance of areas and facilities within field of recreation and parks; identification, acquisition, allocation, development and management of land and water resources through environmantally sound techniques.
2112. Management of Racraation Sarvicas. (3). Inter-
personal skills necassary in administration and management personal skills necassary in administration and management
of recreation personnel; critical areas of maneger/employee of recreation personnel; critical areas of maneger/employee
relationships; legal basis and legal aspects of recreation end relationships; legal basis and legal aspects of recreation end
park service. Offared alternate years only.
2113. Park and Recraation Fecilities. (2). Plannıng, develop3206. Park and Recraation Fecilities. (2). Plannıng, development, and maintanance of parks and recreation facilities.
Includes inspection, comprehensiva recreation surveys, and planning a layout.
2114. Program Planning in Racration. (3). Program fields in relation to programming principles, planning objectives. structural organization, purposes and values of types o activities, programs for special groups, and program evaluation 3605. Outdoor Recreation. (2). Organization and administration of programs and activities in large park areas and forests. Outings, campfire programs, picnics, hiking. outdoor cookery, trailing, climbing, class and field activity.
2115. Recreation for Special Populations. (3). Population segments of American sociaty that are considered physically. socially, mentally and emotionally abnormal; emphasis on examining recreational needs of special populations.
2116. Leisure Education for Recreation Therapy. (3). Leisure education as applied in recreation therapy settings. Analysis of groups served, programs offered, interagency coordination and general trends in the profession today.
2117. Camp Administration, Counsaling and Programming (3). (3505). History, administration, organizatıon and operaion of organized camping programs; emphasis on program planning, camp administration, staff selection, training and camp counseling techniques as practiced today.
2118. Leadership Seminar in Recreation. (3). (3805). leadership; research in leadership, issues and problems of working with individuals and groups.
2119. Recreetional Leadershtp. (3). Oevelopment of skills and techniques necessary for successful leadership in recreation and park programs.
2120. Aquatic Administration. (2). Administration and management of aquatic programs; emphasizes organization and direction of aquatic programs in recreational and educatıonal environments
2121. Field Problams in Recreation. (1-6). Selected problems in areas of recreation and parks through individual and group field experience. PREREQUISITE: permission of instructor.
4405-6405. Organization and Administration of Recreation. (3). Community or ganization, its philosophy, foundation and principles. Selected administr ative practices that relate to successful recreational organization and administration.
2122. Recreation Planning and Technological Support Systems. (3). Process and products of urban recreation planning: focus on basic concepts, measures, methodology he park and recreation plan and use of computer. Two lecture wo laborator
2123. Internship in Recreation and Parks. (3-18). Professional field experience: opporiunity to relate theory to practica experience. PREREQUISITE: Consent of instructor. (S/U).
4706-6705. Workshop in Racreation and Parks. (1-6). Selected phases of recreation, parks or leisure studies. Indepth study of areas of interest and need for persons in recreation and parks or related fields. May be repeated with a change in topic. ( $\mathrm{S} / \mathrm{U}$ ).
2124. Selected Topics in Recreation, Parks, and Laisure Studies. (1-3). Current topics in recreation, parks, and leisure studies. May be repeated with change in topic and content. See Schedule of Classes for specific topic.

## HOME ECONOMICS AND DISTRIBUTIVE EDUCATION

PROFESSOR DIXIE R. CRASE, Chairman

Majors and minors in (1) Home Economics. (2) Vocational Home Economics, (3) Oistributive Education.

## M770 HOME ECONOMICS (HMEC)

1100. Management in Home Economics. (1). Scope of Home Economics, educational preparation, professional orientation and research pertinent to the field. (S/U). PREREQUISITE: Home economics major.
1101. Personal Development and Human Relations. (3). Individual and group adjustment, influences contributing to successful marriage and family life.
successful marriage and family life.
1106 . Clothing Selection and Cons
1102. Clothing Selection and Construction. (3). Standards in selecting and purchasing; construction of cotton garments to meet individual needs. One lecture. four laboratory hours per week.
1103. Technical Skills for Homa Furnishings. (3). Students interested in housing, home furnishing and related areas focus on varied program of technical skills involving quick sketch problems, freehand floor-plans, and collages. For home economics majors who lack skills necessary to demonstrate concepts of depicting home furnishing interiors.
1104. Introduction to Fashion Merchandising. (3). Introduction to the types of enterprises, activities, operations, interrelationships, and practices in fashion industry. Emphasis on merchandising terminology and techniques.
1105. Food Selection and Preparation. (3). Principles underlying selection and preparation of foods with introduction to planning and serving of maals. Open to freshmen. One lecture, four laboratory hours per week
1106. Home Furnishings and Ralatad Arts. (3). Elements and principlas of design applied to selection and arrangement of house and its furnishings.
1107. Visual Marchendising. (3). (Same as DTED 2106). Theory and practice in visual merchandising (display); especially retail interior and window display techniques, display creation, plannıng promotions, and datermıning budgets. One lecture, four laboratory hours per week.
1108. Nutrition. (3). Nutritive value of food, factors influencing body food requir ement and halth. Open to freshmen.
1109. Clothing Construction. (3). Fundamental principles of clothing construction, fitting and handling wool, silk, and
synthatic fabrics One lecture, four laboratory hours per week PREREOUISITE: HMEC 1105
1110. Consumar Education. (2). (3405). Examination of consumar problams in today's market pleca; emphasis on decision making. consumer rights end responsibilities and consumer information sources
3106 . Professional Development Marchandising Seminar. (1). Professional orientation and placement for the merchan dising practicum experience
1111. Housing and Equipment. (3). (4203). Housing as it ralates to conditions of family living Principles underlying construction, use, end care of household equipment
1112. Merchandising Systems. (2). Analysis of formulas used to plan and control the flow of merchendise through the use of both computer and manual systems.
1113. Child Development and Learning Theory. (2). (Sama as EDUC 3301). Principles of human development and learning processes as they relate to infancy, early and middle childhood years COREOUISITE: HMEC 3401 for Vocational Home Economics majors
1114. Meal Preparation and Table Service. (3). Nutrition fundamentals in individual and family dietaries. meal planning. four laboratory hours per week. PREREOUISITE: HMEC 2102. 3383. Materials and Methods in Secondary Homa Eco nomics. (3). (Same as SCED 3383).
1115. Occupational Education in Homa Economics (3) History, philosophy, and organization of Home Economics Occupational Education; emphasis on instructional strategies PREREOUISITE: HMEC 3383.
1116. Parenthood Education. (1). Parental role, parent-child relationship and factors that influence parenthood. CO. REOUISITE: HMEC 3301.
1117. Institutional Managemant and Equipment. (3) Observation and practice in handling problems of organization and management of quantity food service. Computer appliHMEC 2104 or permission of instructor.
4101-6101. Nursery School Curriculum. (3). Application of child development principles to program planning: infancy through four years of age.
1118. Diet Therapy. (3). Dietary problems applicable to prevention and treatment of disease in which therapeutic diets are of major importance. Computer applications in diet
modifications. PREREQUISITES: BIOL 1631. HMEC 2202 . 4402; or permission of instructor.
1119. Family Economics (2). Management of family resources as they relate to satisfying home and family life. Includes problems in consumer goods and services.
1120. Readings in Home Economics. (1-3). For senior home economics majors; in-depth reading or research in area of
specialization. PREREOUISITE: senior home economics majors only.

001 CHILD DEVELOPMENT AND FAMILY RELATIONS. (1-3) 002 FOODS AND NUTRITION. ( 1 -3).
OO3 FAMILY ECONOMICS AND CONSUMER EDUCATION. $(1-3)$.
004 HOUSING AND HOME FURNISHINGS. (1-3).
005 CLOTHING AND TEXTILES. (1-3).
006 FASHION MERCHANDISING. (1-3)
4201. Family Relations. (3). Courtship, marriage, and achievement of satisfaction in family life. PREREOUISITE: HMEC 1101.
4204-6204. Furnishings Problams and Prasentations. (3). Problems in planning. coordinating, and purchasing of home furnishings. One lecture. three leboratory hours per week. PREREQUISITE: HMEC 2004, 4304
4301. Nursery School Practicum. (3). Participation in and direction of various nursery school activities. One conference, five laboratory hours per week. PREREOUISITE: HMEC 3301. (S/U).
4304-6304. Trends in Housing and Home Furnishings. (3). (3104). Major trends and influences on contemporary residential furnishings as these affect home furnishings merchandising. PREREQUISITE: HMEC 2104.
4305-6306. Trede Construction of Clothing. (3). Clothing construction based upon industrial trade methods and tech-
niques, in logical sequence, in garment construction. PREniques, in logical sequenc
REQUISITE: HMEC 2205.
4316. Internship in Clothing Services. (3). For teachers in areas of Occupational Clothing Services. Emphasis on utilizing knowledge and skills in clothing area in industrial setting PREREOUISITE: All Occupational major subject ma
must be completed previous to internship. (S/U).
4402. Advanced Nutrition. (3). In-depth study of nutrients and body utilization and discussion of current issues in nutrition. PREREOUISITES: HMEC 2202, CHEM $1111,1112$. 4405-6406. Textiles. (3). (3306). Selection, use and cere of textiles ralated to properties of fibers, yarn structures, fabric construction, and finishes. Morphology and chemistry of
fibers, finishes, dyes, fabric maintenance and procedure fibers, finishes, dyes, fabric maintenance and
involved in fiber, yarn, and fabric identification.
4602.6502. Quantity Cookery and Purchasing. (3). Principles of procuring, storing, producing and serving foods in volume. Planned work experience in selected quantity food operations. PREREOUISITES: HMEC 3302, 3602
4604-6604. Selection and Use of Textilas for Home Interiors. (3). Guides in selection, use and care of textiles for household interiors.
4606-6605. Tsiloring. (3). Selection and construction of tallored wool garments, using various tailoring techniquee PREREQUISITE: HMEC 1105 and permission of instructor.
4600. Seminsrin Home Furnishing end Feshlon Merchan-
and homa furnishings marchandising; pattarns of production distribution, buying and promotion. PREREQUISITE: All major distribution, buying and promotion. PREREQUISITE: All major subjact mattar courses must be complatad bafora tha pro-
fassional samastar. COREQUISITE: Fashion concantration fassional samastar. COREQUISITE: Fashion concantration
HMEC 4705; Homa Furnishings concantration - HMEC 4804
4602-6602. Community Nutrition.(3). Nutritional problems and practices of verious ethnic, age and socio-economic groups. Community and egencies concerned with meeting groups. Community and egencies concerned with meeting
these needs PREREQUISITE: HMEC 2202 or permission of instructor.
4702-6702. Nutrition Practicum. (3). Supervised field experience in the area of food service administration and/or community nutrition.
001 Food Production Practicum. (4302).
002 Catering. (4202).
003 Community Nutrition.
4706. Fashion Merchandising Practicum. * (6). Eight (8) weeks of full-time work experience in Fashion Merchandising in approved business establishments. Students may not enroll for more than total of 12 semester hours during professional
semester. "COREQUISITES HMEC 4600 (S $/ \mathrm{U})$ semester. "COREQUISITES: HMEC 4600. (S/U).
4802-6802. Exparimental Foods. (3). Principles underlying experimental approach to study of chemistry, composition, structure, and properties of foods; effects of various ingredients in commonly prepared foods. One lecture, four laboratory
hours per week. PREREQUISITES: HMEC 2102, CHEM 1111 , hours
3311.
4804. Home Furnishings Merchandising Practicum. (6). Eight weeks of full-time work experience in Home Furnishings Merchandising in approved business establishments. Studants mey not enroll for more than total of 12 semester hours during protessional semester. COREQUISITE: HMEC 4600 . (S/U)
4900-6900. Homa Economics Study Tour. (1-3). On-thescene knowledge about specific academic areas of specializaion within home economics. PREREQUISITE: permission of instructor. Maximum of 6 credit hours for degree program
001 Child Development and Family Relations. (1-3)
002 Foods and Nutrition. (1-3).
003 Family Economics and Consumer Education. (1-3).
004 Housing and Home Furnishings. (1-3)
005 Clothing and Textiles. (1-3).
005 Clothing and Textiles. (1-3).
006 Fashion Merchandising. (1-3)

## M772 DISTRIBUTIVE EDUCATION (DTED)

The Department of Home Economics and Distributive Education offers a major and minor in Distributive Education to prepare teacher-coordinators for vocational marketing and distributive education programs in high schools, technical institutes and
community colleges. 1111. Orientation to Distributive Education. (11. Scope of careers in distributive education \{teaching marketing, merneeded, professional orientation, and field observations
2106. Visual Merchandising. (3). (4621). (Same as HMEC 2106). Theory and practice in visual merchandising (display); especially retal interior and window display techniques, display creation, planning promotions and determining bud gets. One lecture, four leboretory hours per week.
3010. Cooperativa Occupetional Educetion. (3). (Same as VTED 3010). Study of occupational education programs which use work experience coordinated with related in-school instruction to provide career preparation in marketing. office, industry, home economics, health and other fields of employment-technical education to general education; trends in vocational-technical education.
$4611-6611$. Principles and Philosophy of Vocational Educetion. (3). (Seme as VTED 4611). History, philosophy, princıples and objectives of vocational education; curriculum problems; contribution of vocational-technical education to general education; trends in vocational-technical education.
4630. M atarials and Methods in Distributiva Education. (3). (Same as SCED 3380). Instructional materiels and techniques used in high school and post-high school marketing and
distributive education classes (Fall semester only).
4641-6641. Tachniquas of Coordination of Cooperativa Occupetional Education. (3). (Same as VTED 4641). Selecting training agencies; developing of analyses; selecting and briefing training supervisor; selecting and working with advisory committees; utilizing other community resources
PREREOUISITE: DTED 3010 or consent of instructor.
4661. Basic Problems in Distributive Education. (1-3). Independent study of current trends and problems related to marketing and distributive education; viewpoints of
the field; attention to problems of students enrolled.
4680-6680. Davalopmant and Suparvision of Vocational Studant Organizations. (3). Aims and objectives of vocational student organizetions and their value in occupational prepara-
tion; their development, curricular integration, operation and evaluation.
4690-6690. Workshop in Distributive Education. (1-9). Group study of selected phases of distributive education program; to assist both in-service and prospective distributive educetion teecher-coordinators in improvement of teachinglearning processes contained in three phases of program
operation: classroom instruction, on-the-job training and youth operation: classroom instruction, on-the-job training and youth
organization advisement. May be repeeted when topic varies. organiz
$(S / U)$.
4700-6700. Distributive Education Study Tour. (1-3) Opportunity to gein on-the-scene knowledge ebout specific ion. May be repeated; however, student should consult with major edvisor to determine meximum credit which may be applied to degree program. PREREOUISITE: permission of inetructor.

## SPECIAL EDUCATION AND REHABILITATION <br> PROFESSOR WILLIAM M. JENKINS, Chairman <br> Room 112, The Special Education Building

The Department of Special Education and Rahabilitation offers a major and minor in Special Education and a major in Rehabilitation Education

## M790 SPECIAL EDUCATION (SPER)

2000. Introduction to Exceptional Children. (3). Overview of field of special education, including historical perspective of the field, characteristics and education of children and youth in each area of exceptionality.
2001. Independent Study in Special Education. (1-6). Opportunity for self-directed study and/or research under supervision. PREREQUISITE: consent of department.
2002. Selected Topics in Special Education and Rehabilitation. (1-3). Investigatıon in selected area(s) of special education and rehabilitation. May be repeated with change of topic.
2003. Methods, Materials, and Curriculum for Mildly Handicapped Learners. (3). Curriculum, methods and materials applicable to the special educational needs of mildly handicapped children who are mentally retarded, learning disabled and/or emotionally disturbed in primary, intermediate and secondary levels; emphasis on applied programming techniques and implementation of remedial procedures in special education settings. CO/PREREQUISITES:
2004. Practical Application of Special Education Methods and Materials I. (3). Planning and implementation of special education methods and materials with mildly handicapped education methods and mater
learners. CO/PREREQUISITES:
2005. Assessment of Exceptional Persons. (3). Tests and measurements used with exceptional persons, including psychological, social and other assessment instruments used in educational and vocational evaluation of exceptional persons. CO/PREREOUISITES:
2006. Behavior Management for Exceptional Students. (3). Advanced strategies for managing social behaviors of moderately and severely handicapped learners. Techniques for eliminating maladaptive behaviors, managing aggressive and antisocial students, and teaching appropriate social skills. CO/PREREOUISITES:
"SPER 3012, 3103, 3104. and 3015 must be taken as corequisites. The prerequisites for this sequenca ara SPER
2000 and ELED 3251,4242 . 2000 and ELED 3251, 4242.
2007. Introduction to Children with Emotional Problems. (4). Historical developments and current practices in identification and treatment of children with emotional problems. Emphasis on educational phase of treatment, including characteristics of children, role of teacher, and curricula planning. Practicum with emotionally disturbed children included. PREREQUISITE: SPER 2000
2008. Introduction to Children with Learning Disabilities. (4). Historical davelopments and current practices in identification and treatment of children with learning disabilities. children with learning disabilities: and relationship of these concepts to academic failure. Practicum with learning disabled children included. PREREQUISITE: SPER 2000.
2009. Nature of Mental Retardetion. (4). Historical developments and current practices in identification and treatment of mentally retarded children. Multiplicity of implications of mental retardation as they relate to impairment in growth, maturation, and learning. Practicum with mentally retarded
children included. PREREOUISITE: SPER 2000.
2010. Programming for Treinable Mentally Retarded Children. 13). Diagnosis, classification, development of teaching materials and techniques, and interaction with trainabial
2011. Introduction to Disabling Conditions end The Helping Professions. (3). Physical. mental and socially disabling conditions and their effect on lives of handicapped and their families. Roles of various helping professions in rehabilitation of such conditions.
2012. Introduction to Vocational Evaluation of the Disabled/Handicapped Citizan. (3). Historical, philosophical and theoretical bases and present status of vocational evaluation. Survey of vocational evaluetion process, principles, techniques and procedures. innovative methodologies and techniques
future trends.
2013. Introduction to Work Adjustment of the Disabled/ Handicapped Citizen. (3). Historical and philosophical perspective of treatment process of work edjustment. Emphasis on adjustment of handicapped individual to work, personal, and social situations and tachniques to enhance adjustment process.
2014. Trends and Issuas in Special Education. (3). Current trends and issues such as mainstreaming, law and the handicapped citizen, working with parents of handic apped and knowledge of available services for handicapped and their families.
2015. Methods end Curricular Adeptations for Physically Impaired and Gifted Learners. (3). Two-module course; respective methods and curricular adaptations needed by physically impaired and gifted learners in school setting
COREQUISITE: SPER 4013 . PREREOUISITE: SPER 3015.
2016. Practicel Applicetion of Speciel Educetion Methods
and Msteriels II. (3). Planning and implementation of spaciel
education methods and materials: one-half samaster with edyysically impaired; one-half semaster with giftad learners. COREQUISITE; SPER 4012. PREREQUISITE: SPER 3015.
2017. Workshop in Spacial Education and Rehabilitation. (1-9). For the professional in fields of special education and rehabilitation. Intensive study of current methodologias. rasaarch, issuas and trends in various areas of exceptionality
and disability. See Schedule of Classes for specific topic. May ba repaated when topic varies. ( $S / U$ ).
2018. Social and Psychological Adjustments to Disebling Conditions. (3). Social and psychological ramifications of disabling conditions. Theorias dealing with adiustment to
physical disabilities explorad and extrapolated to mantal and physical disabilities explorad and extrapolated to mantal and
social disabilitias. 4903. Halping and Human Relationships with Disabled Parsons. (3). Focus on examining theories of human behavior parsons. Theories of Combs, Carkhuff and others.
2019. Instructional Methods in Rehebilitation. (3). Theoretical background and practical application in vocational avaluation, vocational exploration, and teaching job skills.
4905 Utilizing Client Information in Rehabilitation. (3). Use of biographical, psychological, medical and job information for casa planning
2020. Diagnostic Vocational Evaluetion for the Disabled/ Handicapped Citizen. (3). In-depth study of processes, principlas and techniques used to diagnosa general assets and limitations of handicapped/disabled individual. Emphasis on use of biographical or refarral data, avaluation interviaw and rationale underlying selaction and use of psychological tasts. PREREQUISITE: consent of instructor
2021. Prognostic Vocational Evaluation for the Disabled/ Handicapped Citizen. (3). Processes, principles and tachniques used to determine and predict work behavior and vocational potantial of handicapped/disabled individual. Selaction and use of appropriata occupational exploration
programs, work samples, situational tasks. simulated work experience and on the job tryouts. PREREQUISITE: SPER 4913 or consent of instructor
2022. Prescriptive Vocational Evaluation for the Disebled/ Handicappad Citizan. (3). Techniques of synthesizing infor mation gainad in SPER 4913. 4914. Interpretation of data through formal staff conference, vocational counseling and
follow-up procaduras. PREREQUISITE: SPER 4913 and SPER 4914 or consent of instructor.
2023. Work Sampie Davelopment for the Disabled Handiceppad Citizen. (3). Davelopment, standardization and validation of work samples. Techniques of job analysis and community surveys and completion of a work sample based on local labor market survey. PREREQUISITE: consent of instructor.
2024. Practicum in Rahabilitation. (3-6). Practical experiences in various rehabilitation settings. (S/U). PREREQUISITE SPER 3901 or consent of instructor

Q840 ENGINEERING CORE COURSES (ENGR)
1006. Introduction to Engineering. (3). Engineering procass from problam formulation to creative design, numerical and graphical methods; computing devices in angineeringpractice. computer programming; professional ethics. Three lecture hours per week.
1021. Engineering Grephics (2). Role of graphical communication in engineering practice, sketching and drafting techniques used in design, elements of descriptive geometry. One lecture/three leboratory hours per week

## CIVIL ENGINEERING

PROFESSOR JOHN W. SMITH, P.E., Chairman<br>Room 104A, Engineering Building

Q800 CIVIL ENGINEERING (CIVL)
1107. Civil Engineering Computation. (3). Continuation of ENGR 1006 with emphasis on computer solutions of civil engineering problems. Three lecture hours per week. PREREQUISITE: ENGR 1006.
2111. Engineering Surveying. (3). (3111). Principles of field measurements; earthwork calculations; alignment of curvas: error analysis Two lectures, three laboratory hours per week. PREREQUISITES ENGR 1021, CIVL 1107. MATH 2321
2131. Statics. (3). Analysis of two and three dimensional force systems; centroids and moments of inertia; friction. Three lecture hours per week. PREREQUISITE: MATH 2321. COREQUISITE: PHYS 2511
3101. Computer Methods in Civil Engineering. (3). Civil engıneering applicatıons of fundamental methods of numerıcal analysis; advanced programming techniques. Three lecture hours per week. PREREQUISITES CIVL 1107. COREQUISITE: MATH 3391.
3102. Civil Engineering Analysis. (3). Probablistic considerations in the design and analysis of civil engineering systems; integration of basic probability laws and statistical distributions with physical laws relating to civil engineering practice; treatment of uncertainty in the modeling of engi-
neering systems. Three lecture hours per week. PREREQUIneering systems
SITE: CIVL 3101
3121. Structural Anelysis 1. (3). Analysis of statically determinate structures; reactions, shear. and moment; truss analysis; influence lines and moving loads. Three lecture hours per week. PREREQUISITE CIVL 2131 .
3122. Structural Analysis II. (3). Analytical and numerical solutions for statically indeter minate structures. Three lecture hours per week. PREREQUISITES CIVL 3121. MECH 3322.
3131. Design of Steel Structures. (3). Current design
concepts for structural steel members and their connections concepts for structural steel members and their connections
Three lecture hours per week PREREQUISITES: CIVL 3121, Three lecture hours per week PREREQUISITES: CIVL 3121 .
MECH 3322 .
3135. Properties of Concrete. (3). Properties of aggregates and portland cement; mix design; testing of plain concrete; properties of hardened concrete; quality control parameters. Two lecture, three laboretory hours per week. COREQUISITE: MECH 3322
3136. Bituminous Materials Engineering. (3). Source, manufecture, processing, types, constituents, tests, chemical aggregates in pevement mix design and construction. Two
lecture, three laboratory hours per week. COREQUISITE: MECH 3322
3161. Transportation Systems Enginearing. (3). (4161) Davalopment and function of transportation systems; operational control and charecteristics; system coordination, traffic flow and patterns. Three lecture hours per week. PREREQUISITE: CIVL 1107, MECH 2322, MATH 2322.
4111. Engineering Economics. (3). (3141). Application of economics and decision theory to engineering alternatives in planning, developing, constructing, and managing engineering projects. Three lecture hours per week
4131-6131. Intermediete Steel Design. (3). Design of plate girders and composite beams; moment connections; current code provisions. Three lecture hours per week. PREREQUISITE: CIVL 3131,3122
4135. Reinforced Concrete Design. (3). Strength analysis and design of reinforced concrete members; floor systems; current code provisions Three lecture hours per week PREREQUISITE: CIVL 3122
4136-6136. Intermediete Reinforced Concrete Design. (3). Desıgn of two-way slab systems; column design including length effects; current code provisions. Three lecture hours per week. PREREQUISITE: CIVL 4135
4141. Weter end Westeweter Engineering. (4). Water and wastewater treatment fundamentals; water quality and treatment, physical, chemical, and biological treatment of wastewaters; design of water and wastewater treatment units; solid lecture, three laboretory hours per week. PREREQUISITE: lecture, 1 hre
MECH 3331
4143-6143. Environmentel Engineering 1. (3).Basic physical chemical treatment concepts for water and wastewater with laboratory demonstration of laboratory studies. Two lecture/ three laboretory hours per week. COREQUISITE: CIVL 4141.
4144-6144. Environmentel Engineering 11. (3). Basic biological treatment concepts for wastewater with laboratory demonstration of unit operations as well as derivation of design data through laboratory studies. Two lecture/three laboretory hours per week. COREQUISITE: CIVL 4141.
4148. Hydraulics and Hydrology. (4). Quantification of precipitation and runoff, flood routing, open channel flow. culvert and sewer design, pipe network distribution systems, pumps and groundwater hydrology. Three lecture, three leboretory hours per week. PREREQUISITE: MECH 3331.
4151. Soil Mechenics. (4). Properties of soil and rock, including identification and classification, hydraulic properties, consolidation characteristics, and stress deformation-strength relationships. Three lecture, three laboratory hours per week PREREQUISITES MECH 3322.
4152. Applied Soil Mechanics. (3). Subsurface exploration, foundation types, foundation construction, selection of foundafion type and basis of design, earth retaining structures, and slope stability. Three lecture hours per week. PREREQUISITE: CIVL 4151
4162-6162. Treffic Engineering. (4). Traits and behavior patterns of road users end their vehicles. Includes traffic signs and signals, pavement merkings, hazard delineation, capacity, accidents and parking analysis. Three lecture, three leboratory hours per week. PREREQUISITE: CIVL 3161.
4163-6163. Airport Planning and Design. (3). Aeronautical demend end traffic control; airport end runway configuration; capacity and delay analysis, geometric design of runweye end texiways; simulation of airport operations; airport eccess and lecture hours per week. PREREQUISITE: CIVL 3161 . Three

4164-6164. Route Location end Design. (3). Elaments of route location and design; emphasis on horizontal and vertica alignment, curvature, gradient and sight distance Two lecture hree laboratory hours per week. PREREQUISITE: CIVL 2111 3161
4171 . Construction Engineering 1. (3). Planning, estımating and bidding of heavy construction projects; development and use of scheduling algorithms for control of construction projects; linear programming and other optimization techniques and their application to resource allocation and bidding strategy. Three leclure hours per week. COREQUISITE: CIVL 4111.
4172. Construction Engineering II. (3). Selection of equipment for heavy construction projects; cost analysis, productivity, procedures and safety aspects of construction operations emphasis on heavy construction project synthesis. Three lecture hours per week PREREQUISITE. CIVL 4171
4173. Construction Contrects end Specificetions. (3) Principles of contract law as applied to heavy construction engineering; legal problems in preparing and administering construction contracts; varieties of construction contracts specification organization and interpretation; engineer-client relationships. Three lecture hours per week. PREREQUISITE consent of instructor.
4174. Quelity Control in Heevy Construction. (3). Development of quality control systems for heavy construction industry: quantitative and statistical techniques for establishing contract compliance; quality assurance sampling, testing, and additional construction control techniques. Three lecture hours per week. PREREQUISITE: consent of instructor 4191. Civil Engineering Projects. (1-3). Independent inestigation of a Civil Engineering problem in consultation with instructor. PREREQUISITE: consent of instructor
4199. Civil Engineering Design. (3). Design of a civil engineering system. Establishment of design objectives and criteria; synthesis and computer assisted analysis of alter natives; selection of optimum system design; preparation of detailed system descriptions including design sketches and engineering drawings and reports. Two lecture, three labora ory hours per week. PREREQUISITE: COMM Elective, senior standing, consent of instructor.

## ELECTRICAL ENGINEERING <br> PROFESSOR CARL E. HALFORD, P.E., Chairman <br> Room 206B, Engineering Bulding

Q820 ELECTRICAL ENGINEERING (ELEC)
1207. Electrical Engineering Computation. (3). Contınuatıon of ENGR 1006 emphasizing siructured solutions to electrica engineering problems through use of computers. PREREQUI. SITE: ENGR 1006
2201. Circuit Analysis I. (3). Fundamental properties of electricel circuits; basic concepts and circuit elements; analysis methods end network theorems; sinusoidal steady-stete response of single and three-phese circuits. COREQUISITE ELEC 2203. PREREQUISITE: MATH 2322.
2203. Circuit Analysis Laboretory. (1). Introduction to utilizetion of meters, oscilloscopes, oscillators. power supplies end related test aquipment in experimental varification of

basic electric circuit theory. Threa leboretory hours per week. COREQUISITE. ELEC 2201
2222, Digital Circuit Design. (4). Review of number systems and base conversions. Analysis and design of digital circuits Logic end sequential design. Introduction to microprocessors hree lecture. three laboretory hours per waek. PREREOUISITE ENGR 1005 .
3201. Circuit Anelysis II. (4). Trensient enalysis of RLC networks. Complex frequency concepts Ideal trensformers and magnetic coupling Two port networks end network synthesis Three lecture, three laboretory hours per week PREREQUISITE. ELEC 2201
3202. Trensform Mathods in Network Anelysis. (3). Introduction to transform theory: Fourier Series; application of ourier, Laplace and Z-transforms to solution of network problems PREREQUISITE. ELEC 2201
3211. Electronics I. (3). Solid state devices es elements of electric circuits, linear models end linear operetion of these devices emphasized. PREREQUISITE ELEC 2201, 2203.
3212. Electronica II. (4). Power amplifiers, frequency response, feedbeck emplifiers, oscillators. difference emplifiers, operational amplifiers Threa lecture, three laboretory hours per week. PREREQUISITE ELEC 3211,3213
3213. Electronics I Laboretory. (1). Emphesis on laboratory echniques in performance of besis electronic experiments COREOUISITE: ELEC 3211
3220. Engineering Computer Syutems. (3). Structure and organization of digital computers end easocieted peripheral devices Digital representetion of data, besic instruction sets. instruction execution and eddreasing techniques. Subroutines end utility programs. systems programs, and other softwere oriented toward computer-controlled systems. PREREQUISITE: ELEC 2222
3221. Matrix Computar Methods in Electrical Enginearing (3). Fundamantals of matrix theory; application of matrix heory and digitel computer techniques to tha aolution of circuit problems Stete equelions end their applicetion the ELEC 3201
3230. Dacision Making for Electrical Enginaering. (3). Applicetion of decision theory, economics, end ethice to enginasing alternativas in plenning, developing, simulating. modeling end optimization of engineering projacts PREREQUISITES ELEC 3221 end permission.
3240. Elactromagnetic Fiald Theory 1. (3). (4211). Maxwell's quations electrostatics. magnetostetics end time verying lectromsogetic fields PREREQUISITE. MATH 3391
4201 Energy Convarsion. (3). Enargy conversion by alectro mechenicel processas, anargy relations in magnoitc systams mothematical modeling of magnatic systems, transformers and electrical mechines PREREQUISITE ELEC 2201
4202-6202. Elactrical Powar Systams. (3). Investigetion of problams associetad with transmission of alectrical anergy coed-flow studies, end fault enelysis by use of symmatrice componenis PREREQUISITE ELEC 3221.
4203. Enargy Conversion Laboratory. (1). Fundemental properties associeted with lesting and utilizetion of direct current and of elternoting current equipment such as motors generators, effernetors and trensformers CQREQUISITE: ELEC 4201
4204.6204. Power Distribution Systams. (3). Distribution of power from transmission systems to users; primery end secondery feeders; voltage reguletion; distribution transformers; overheed, underground and network distribution system design; lightning phenomene and protective device coordination. PREREQUISITE: ELEC 4201, 4203.
4212-6212. Elactromegnetic Field Theory II. (4). Plane, cylindrical and spherical waves; high frequency transmission lines; introduction to microweve and antenne theory. Three lecture, three laboretory hours per week. PREREOUISITE
ELEC 3240 . ELEC 3240
4213-6213. Antenne Theory end Design, (4). Theory of operetion and design of antennas. Determinetion of antenne radiation cherecteristics. Introduction to antenne errey theory Threa lecture, three laboratory hours per week. PREREQUISITE: ELEC 3240.
4221.6221, Pulsa end Digitel Circuits. (4). Timing, scenning trigger and pulse circuits; asteble, bisteble and monostable multivibretors; binary counting circuits. Threa lecture, three laboretory hours per week. PREREQUISITES ELEC 3211
2222. 2222.
4223. Introduction to Enginearing Instrumentetion. (4) (3222). Transducers for physical systems. Mechenicel, temperature, acoustic, and biomedicel trensducers. Methods of processing and enelyzing data. Three lecture, threa leboratory hours par week. PREREQUISITE: ELEC 3212
4230-6230. Date Communicetion Syatems. (3). Dete communications in information and computing systems. Analog end digital means of transmitting and controlling informetion. Orgenization and requirements of date com munication systems including modulation and demodulation multiplexing. switching, error detection and correction. On and Off line, real and non-reel time, and time shering systems PREREQUISITE: ELEC 3202
4231.6231. Communicetion Theory. (3). Frequency end time domain. Moduletion, random signel theory: eutocorrelefion: besic information theory, noise, communicetion systems. PREREQUISITE. ELEC 3202
4232-6232. Discrate SIgnal Processing. (3). Introduction io daterminiatic end rendom diacrete time aignal analyaia. Includes signal time avereging, digitel filtering. spectral enelysis, and detection and astimetion of signels. Applications to computer procesaing biomedical, aeıamec, and radar aıgnels PREREQUISITE: ELEC 3202.
4233-6233. Satellite Communications. (3). Eerth-setellite link model. signel proceaaing end interfecing; moduletion tachniques for satallite syatems; coding end synchronizetion techniques. PREREQUISITE: Senior standing and parmission. 4234-6234. Error Correcting Codes. (3). Gelola Fielda algebra; currant arror correcting coding tachniques for protection of digital date communicetion systams; rendom end burst arror codea. PREREQUISITES Senior atanding and permission.
4240-6240. Introduction to Quentum Electronics. (3). Quentum concapts, Schrodinger aquation, quantization of alectromegnatic radiation Leser theory and epplication PREREOUISITE. ELEC 3240
4241-6241. Solid State Physical Electronics. (3). Quantum concepts, statistics. crystel structure, conduction processas in solide: p-n junctions and devices, field-affect devicas; charge transler devices PREREQUISITE. ELEC 3211,3240

4242-6242. Eleciro-Qptical Systems. (3). Principles of radiometry and the engineering aspects of electro-optical devices such as lasers, treckers, FLIRs, infrared sources and detectors. Video techniques for displey and analysis. PREREOUISITE: ELEC 3202.
4243-5243. Lineer Optical Systems. (3). Review of Fourier echniques for anelysis end design of lineer systems, extension to 2-dimensionel techniques, 2 -dimensional transform epplied to linear optical systems and optical data processing.
PREREQUISITE: ELEC 3202 . PREREQUISITE: ELEC 3202
4251.5251 . Control System Engineering. (3). General equations of physicel lineer systems and their transfer funclions. Transient enelysis and stability of servo systems. The Bode plot, Nichols chart, Nyquist plot, Routh-Hurqitz criterion, and 3221. COREQUISITE: ELEC 4253.
4252.6252. Digitel Control Systems. (3). Problems and analysis techniques appliceble to digital control systems. Prior knowledge of Laplace transtorms required: basic knowledge of eed.eck conirol theory desirable. PREREQUISITES: ELEC 3202, 3221. COREQUISITE: ELEC 4253
4253.6253. Contral Systems Leboretory. (1). Investigations in fundamental properties associeted with control systems engineering. Laboratory procedures in analysis of control systems, compensetıng networks, anelog and digital cumputer simulations. CORE QUISITE ELEC 4251 or ELEC 4252.
4255.6255. Introduction to Robotics. (3). Review and application of kinematics, control systems and microprocessors o robot menipuletors. PREREQUISITE: Sentor standing in Electrical Engineering or permission.
4256-6256. Robotics Leboratory. (1). Laboratory epplicetion of control techniques for robotic manipulators. Three leboretory hours per week. CQREQUISITE: ELEC 4255-6255.
4261.6281 . Introduction to Natwork Synthesis. (3). Synhesis of canonical LC, RL, RC, and RLC driving point impedences. Synthesis and realizetion of lossy one and iwo port networks. PRERE QUISITE: ELEC 3202.
4270-6270. Introduction to Microprocessors. (3). LSI circuitry, microprocesser architecture, hardwere end softwere applicetion and system design. PREREQUISITE: ELEC 2222
4271.5271. Microcomputer Techniques. (3). Use of high level languages in microcomputer system design. Introduction to popular 16 -bit machines. PREREQUISITES: ELEC 4270 or 3220
4272.5272. Engineering Softwere. (3). Use of scientific software package; introduction to hierarchal operating 3221 or permission of instructor.
4273.6273. Microprocesor System Design. (1). Design of microprocessor besed systems. Three leboretory hours per week. PREREQUISITE: ELEC 4270
4280. Electricel Engineering Design. (3). Individuel and/or leem design projects which require creative application of electricel engineering concepis. Orel and written presentetions required. PREREQUISITE: Senior stending.
4991. Electricel Enginearing Projecte I. (1-3). Independent investigetion of problem selected in consultation with instructor; report required. PREREQUISITE: sentor standing. 4992. Elactricel Engineering Projects II. (1-3). Design, construction end testing of project investigeted in ELEC 4991. report required PREREOUISITE: ELEC 4991

## ENGINEERING TECHNOLOGY

PROFESSOR W. T. BROOKS, Chairman
Room 203, Technology Building

## Q890 ARCHITECTURAL TECHNOLOGY (TECH)

1555. Hintory of Architectura. (3). Mejor trends in architec ture from prehistoric times to present. Emphasis on impact of technological and social chenges on prevailing architecturel styles.
1556. Architectural Design I. (4). Fundementels of erchitec tural design; besic techniques of drefting, perspectives, presentetion and working drewings. Three lacfure, three laboratory hours per week
1557. Site end Environmental Plenning. (3). Building sites: selection end utifization, including environmental influences Technical aspects such as zoning. contour ines, parking ingress/egress, site drainage, bulding location and land sceping Two lectura, iwo leborelory hours per waek. PRE REQUISITE: TECH 2555
1558. Building and Construction Systems. (3). Compre hensive study of building types and building systems as they relate to architectural technology PREREQUISITE: TECH 2555 3471. Structural Dasign I. (3). Fundementala of structurel design and analysis of steel end timber buildings end building components PREREQUISITES MATH 1321, TECH 3401
1559. Structurel Design II. (3). Fundamentals of structura design end analysis of concrate buildings and building omponenta PREREQUISITES MATH 1321, TECH 340
1560. Architectural Design II. (4). Baaic design concapts and methods ae epplied to building types, design, consiruction, and systems for units of contemporary architecture. Three lecture three leboretory hours per week. PREREQUISITE TECH 2555, 3471
3621 . Architectural Model Making. (3). Pictorial represen tetions, model building and furniahings design. PREREQUI SITE. TECH 2555 or permission of instructor
1561. Mechanical Equipmant In Constructlon.(3). Studies anvironmantel technologies in architactura; mechanical REOUISITE junior , ending in Technology or permission REQUISITE. junior stending in Technology or permission of instructor
1562. Architectural Design III. 14). Dasign concepts and methods as related to mass horizontal and vertical architectural
devalopment. Three lecture, three leboretory hours per week. devalopment. Three lecture, three hoboretor
PREREQUISITES: TECH 3520, 3471, 3472.
1563. 8uilding Codes and Reguletions. (3). Codes and regulations. in general, that influenca the design and
construction of buildings. Specific study of the local building construction of buildings. Specific study of the local building
code and ragulations that influence building construction. code and ragulations that influence building construct
PREREQUISITE: TECH 2561 or permission of instructor.
1564. Architectural Specificetions end Contracts. (3). Examination of typical contract documents beginning with agreemant between architect and ownar and continuing of each party. CSI format for spacifications, including proper organization, writing and utilization of complete set of organization, writing and utilization of
specifications. PREREQUISITE: TECH 3520.
1565. Architectural Design IV. (5). Architectural Schematics and Design prasentation. Design presantation concepts as applied in architactural practice, municipal planning and related city and urban design and development. Techniques
and philosophies of schematic and oral prasantations. Field and philosophies of schematic and oral prasantations. Field
trips to architactural and community planning offices. Three trips to architactural and community planning offices. Three
lecture, four leboretory hours per week. PREREQUISITE: TECH lectur
1566. 

## Q890 COMPUTER SYSTEMS TECHNOLOGY (TECH)

 2251. Advanced Progremming Techniques. (4). Modeling techniques applicabla to engineering technology. Subprograms tape input/output, random-access storaga davices, complex arithmetic, and double precision operations em-phasized. Three lecture, three laboretory hours per week. phasized. Three lecture, thr
PREREQUISITE: TECH 1010.
2251. Deta Structures. (4). (3251) Application of high speed digital computar to problems associatad with storage and retriaval of numeric and non-numeric data in engineering systems. Includes rapresentation and organization for storing
of data, saarching and sorting techniques, decision tables, and of data, saarching and sorting techniques, decision tables, and
file maintenance techniques. Three lecture, three /eboretory file maintenance techniques. Three lecture. three /eboreto
hours per week. PREREQUISITE: TECH 2251 or equivalent.
3231. Computer Technology I. (3). Introduction to digital and analog computer hardware relating to computing circuits and systems; numbers systems; switching and logic circuits; storaga devices; input and output devices; principles of program
control. Two lecture, three /aboretory hours per week. control. Two lecture, three
PREREQUISITE: TECH 2821.
3232. Computer Technology II. (3). Introduction to internal computer organization and configuration design; componant and device characteristics; data represantation, transfer and storaga; 8oolean algebra; combinational logic. Two lecture,
three leboretory hours per week. PREREQUISITE: TECH 3231. 3271. Computer Simulation Technology I. (4). Languages designed for simulation of physical systems. Includes general purpose languages. as well as languagas dasigned for alectronics and construction technology. Laboratory consists alectronics and construction technology. Laboratory constion of analog, digital and hybrid computers to simulate large scale systems. Three lecture, three leboret
hours per week. PREREQUISITE: TECH 2261, TECH 2944.
4241-6241. Computer Simulation Technology II. (4). Advanced simulation methods with particular amphasis on simulators using a dedicatad computer. Problams and limitations of raal-time simulations typical to aerospace and nuclear industries. Special and advanced techniques for business and
industrial applications. PREREQUISITE: TECH 3271 or perindustrial application
mission of instructor.
mission of instructor.
4251. Assembly Language Programming. (4). Investigation of a particular mini-computer from programmer's viewpoint.
Includes machine representation of data, instruction formats. Includes machine representation of data, instruction formats.
machine operation and addressing techniques, input/output, machine operation and addressing techniques, input/output, and interrupts. Applications include use of minicomputers for numerical control and in sensor based systems. Three lecture,
three leboretory hours per week. PREREQUISITE: TECH 2261, three /ebore
TECH 3232.
4261-5261. Computer Applicetions in Technology. (4). Applications of problem oriented and procedure oriented languages to problems from selected areas of engineering technology. Includes data collecting, modeling techniques. constraints, program development and validetion. Areas of constraints, program
emphasis may vary to meet student needs. Three lecture. three leboretory hours per week. PREREQUISITE: TECH 2251 or permission of instructor.
4271. Computer Techniques. (4). Advanced computer techniques in industry. Includes APT programming for NC machine tools, application of computer to solve PERT networks and applications in production planning and control. Three
/ecture. three /eboretory hours per week. PREREQUISITE: lecture. ${ }^{\text {thr }}$
TECH 2251.
4233. Digital Systems in Technology. (4). Industrial end ommercial applications of microcomputers and microprocessors; theory of operation of MSI and LSI logicel devices, memory and input/output devices; techniques of microprogramming, testing and maintenence. Three lecture, three leboretory hours per week. PREREQUISITE: TECH 3232.
4234. Microprocessor Intertecing Techniques. (4). Application of microprocessors to equipment; emphesis on interface problems. Techniques employing conventionel Logic devices as well as LSI components. Testing and maintenance techniques of equipment using microprocessor based design. SITE: TECH 4233.

Q890 CONSTRUCTION TECHNOLOGY (TECH) 1451. Introduction to Survaying. (3). Surveying practices,
calculations, and use of topogrephical conventions. Iwo calculations, and use of topogrephical conventions. Two
lecture. three feboretory hours per week. PREREQUISITES: MATH 1213.
3412.Soil Technology in Construction. (3). Soil technology
as apolied to construction field. Fundamental properties of as applied to construction field. Fundamental properties of walls and slope stability. Relationship between soil cherecteristic end geologic formations. Two lecture, three leboretory hours per week. PREREQUISITE: junior standing or approvel of
instructor.
3414. Construction Administration. (3). Ethical practice, social responsibility, licensing, codes, and public regulation of contracting, specification writing and interpretation, functions of architect-engineer and owner, construction contracts, bonding, insuranca, indemnification, labor egreaments and bonding, insuranca, indemnification,
jurisdictional procedures, joint egreaments and jurisdiotional procedures, joist
ralationship. PREREQUISIE: junior standing.
3451. Construction Surveying Methods. (3). Methods, techniques and formulas necessary to establish controlling points at any construction site. Both office end fiald procedures raquired to locate centerlines and bounds of structures.
PREREQUISITE: TECH 1451 . PREREQUISITE: TECH 1451.
3491. Estimating. (3). Study and practice of specifications. bidding procedures, and estimating. PREREQUISITE: TECH 2555.
3591. Lend Surveying. (3). Historical background of property survays. Writing adequata land descriptions. Interpretation of old descriptions. Excess and deficiancy. Riparian rights. Field practice. Two lecture, three leboretory hours per weak.
PREREQUISITE: TECH 1451 .
4510. Construction Planning and Scheduling. (3). Principles of planning scheduling, organizing, and controlling construction projects. Studies in critical path method (CPM) and PERT, with resource leveling and financial scheduling. Computer senior standing or approval of instructor.
4520. Construction Methods and Equipment. (3). Theory and practice of construction oparations, equipment utilization. construction methods, analysis of costs, craw and equipment. PREREQUISITE: senior standing or approval of instructor.
4522-6522. Construction Logistics. (33). Theory and practice of construction project bidding using statistical concepts of probability and computar applications. Office procedures, job
and cost control, and analysis of starting and completing construction contracts. PREREQUISITE: Senior standing or permission of instructor.

## Q890 ELECTRONICS TECHNOLOGY (TECH)

1811. Electronics Technology I. (3). (Same as CMUS 1811). Introduction to fundamental alactrical and electronic thaory and devices, circuit and network theorems, laboratory
emphasis on basic alectrical measurements and proper use of emphasis on basic alectrical measurements and proper use of
instruments. Two lecture. three leboretory hours per week. instruments. Two lecture. three leboretory hours per week.
PREREQUISITE: MATH 1213 .
1812. Electronics Technology II. (3). Circuit analysis methods in modern electronics technology. Laboratory confirmation of
mathematical solutions to problems involving Direct and Alternating Currents. Two /ecture, three leboretory hours per Aeek. PREREQUISITE: TECH 1811.
1813. Residential and Industrial Electricity. (3). Electrical materials, devices, procedures, and regulations involving the
control and distribution of electrical power in private and control and distribut
1814. Electronics Technology III. (3). Theory of solid-state devices and electron tubes with applications in power supplies. amplifiers and othar basic electronic circuits. Solid-State diodes, bipolar junction transistors, and field affect transistors emphasized. Two lecture. three leboretory hours per week
PREREQUISITE: TECH 1811 . COREQUISITE: TECH 1821 .
1815. Electronics Technology IV. (3). Theory of semiconductor devices and their applications in multistage circuits, sinusoidal and nonsinusoidal oscillators, and othar fundamental alectronic circuits. Both discrete components and integrated circuits; emphasis on integrated circuits. Two
/ecture, three /eboretory hours per week. PREREQUISITE: lecture, thr
TECH 2821.
1816. Electricel Generetion and Trensmission. (3). 8esic concepts of generation and transmission of electrical power. Emphasis is on applications to the electrical utility industry. for and limited to students enrolled in Nuclear Studies courses. 3811 . Electronics Communicetions. (3). Principles of modulation and demodulation, in depth; together with associated radio transmitter and receiver circuitry, telephone applicetions and electronic navigational aids. Two lecture,
three leboretory hours per week. PREREQUISITE: TECH 2831.
1817. Industriel Electronics. (3). Electronic circuits and systems in modern industry. Theory and industrial applicetions of devices such as ges and vacuum tubes, unijunction of densistors, silicon controlled rectifiers, diecs, triacs, optoelectronics, and synchros. Two lecture, three leboretory hours
per week. PREREQUISITE: TECH 2831 .
1818. Control Instrumantation. (4). Theory of applicetion of automatic control equipment, principles, operations end construction of pneumatic hydraulic, electrical, and autometic ratio controllers. Three lecture, three /eboretory hours per 3841. Advanced Applied Elactricity. (3). Generetion and utilization of single and polyphese electricel power in home and industry; DC end AC generators, motors, regulators and meters in both individual end systems applications. Two
lecture, three feboretory hours per week. PREREQUISITE: lecture. three leboretory hours per week. PREREQUISITE:
TECH 821 . 4801. Antanna Technology. (4). Detailed examinetion of with minimum of purely mathematicel enelysis; epplicetions in both wire and wireless systems. Three lecture, three feboretory hours per week. PREREQUISITE: TECH 4821.
1819. Advanced Elactronic Communications Tachnology. (3). Concepts, systems and practical epplicetions in generetion, tion in analog and digital form. PREREQUISITES: TECH 4821 tion in ana
and 4233 .

## and 4233.

4821. Microwave Technology. (4). Generation and trensmission of energy at frequencies above 300 megahertz, emphesizing techniques and equipment which contrest sherply
with those et lower frequencies. Three lecture, three /eboretory with those et lower frequencies. Three /ecture, three /eboretory hours per week. PREREQUISITE: TECH 3811.
4822. Vidao Communications. (3). Theory and epplication of technical equipment for generation transmission, end $r$
ception of video signals, both closed circuit and broadcast. Two
lecture. three feboretory hours per week. PREREQUISITE Tecture 3811

## Q890 MANUFACTURING TECHNOLOGY (TECH)

 1511. Graphics. (3). Introduction to graphic representationand presentation of technical objects: and presentation of technical objects; U.S. and metric scales, multiviews, sections, dimensions, tolerances, and fasteners;
sketching and drawing with instruments applied to shoo and sketching and drawing with instruments applied to shop and
assambly drawings; interpretation of blueprints. Two lecture. assambly drawings; interpretation
three leboratory hours per week.
1611. Introduction to Forest Products Tachnology. (3). Lecture and related laboratory activities employed to study fundamental concepts of wood utilization, wood fabrication operations of woodworking machines, adhesive technology,
wood lamination, banding wood anatomy, wood finishing, and wood lamination, banding wood anatomy, wood finishing, and
the organizetion of forest products and industries. Two /ecture. the organizetion of forest products
three leboretory hours per week.
1711. Manufacturing Procassas 1. (3). Introduction to
manufacturing processes and machine manufacturing processes and machine tool technology used to shepe materials into us aful products. Laboratory exercises
include lethe operations, computerized numerical control milling, electrical discharge mechining, non-traditiona machining, and computer aided design. Two lectura, three leboretory hours per week.
2511. Dascriptive Geometry. (3). Three-dimensional projection theory for geometric manipuletion and determination ond pracical priats of major and practical projects of major engineering branches; U.S. end
metric system used. Two lecture, three leboretory hours per week. PREREQUISITE: TECH 1511
3386. Occupational Sefaty. (3). (3387). Hazards end safety procedures for genaral industry and construction.
3410 . Plastic Propertias and Processes. (3). Classification and propertias of basic groups of plastics and industrial processes and techniques used in transforming raw materials into usable products. Two lecture, three leboretory hours per
3421. Manufacturing Processas II. (3). Processes and techniques used to shape materials into useful products. Techniquas include cutting, molding, stamping, extruding end power metallurgy. Major emphasis in the areas of principles
and applications of numerical controls. Two and applications of numerical controls. Two lecture. three
leboretory hours per week. PREREQUSITE: TECH 1711 and leboretory ${ }^{\text {h }}$
3573. Dynamics and Mechanical Design. (3). Basic consideration of kinematics, linkages, mechenisms and their relation to dynemic properties such as force,
acceleration. PREREQUISITES: TECH 2944, 3400.
3601. Light Freme Building Construction. (3). Contamporery light frame building construction; emphasis on estimating building materials, and building systems.
3611. Industrial Wood Processing. (3). Lecture and related laboratory activities to study wood product mass production; with emphasis on wood product design, process enginaering, wood related materials, hours per week. PREREQUISITE: TECH 1611
3718. Walding and Metallurgy. (3). (3731). Properties of metals; amphasis on physical and mechanical properties related to welding, cold and hot working, heat treating and testing. Three lecture. two leboretory hours per week.
4460. Motion and Time Analysis. (3) Methods improvement, motion aconomy, and development of time standard by direct observation, predetermined time standards, and synthesis.
4462. Statistical and Quality Control. (3). Statistical methods for analyzing quality problems; include control charts for veriables and attributes; single, double and multiple lot-by-lot
acceptance sampling plans: end computer epplications to quelity assurance.
4464. Production Control. (3). Planning and control of
production; emphasis on intermittent end continuous manuproduction; emphasis on intermittent end continuous manuforms, using forms, using visual controls, scheduling,
planning, and using critical peth techniques.
4466. Plant Layout. (3). Designing a plant with respect to material hending, machine locetion, auxiliary services, cepite 4470-6470. Human Parformance in Menufacturing. (3) Men-maching environment systems; men's enetomicel,
physiological and pyschologicel capabilties and limitations physiological and pyschologicel capabilties and limitations
releted to work and workplace. Application through leb experiences and plant visits. Two lecture, three leboretory hours per week.
4472-6472. Computer Aided Dasign. (3). Overview of
computer aided design(CAD) technology; underying principles integreted systems philosophy, disciplinery and industrie applications. hardware and software principles, menegement and human aspects benefit. Two lecture, three leboretory
hours per week. PREREQUISITE: senior standing or permission of instructor.
4474-6474. Automation and Robotics. (3). (4476-6476) Cepebilities end epplications of programmable logic controllers: three feboretory hours per week. PREREQUISITE: senior stending or per mission of instructor.
4476-6476. Computer Aided Manufacturing. (3). (4474-
6474 ) Use of computers in manufecturing including product 6474) Use of computers in manufecturing including product, instrumentetion end process environments. Herdwere end
softwere fundementals. Survey of numbering systems end softwere fundementals. Survey of numbering systems end
digitel electronics. Emphasis on applicetions and menegement digitel electronics. Emphasis on applicetions and menegemen
aspects of computer aided manufecturing systems. Two lecture, three leboretory hours per week. PREREQUISITE: senior stending or permission of instructor.
4478-6478. Advanced Numarical Control Programming. il progremming langueges and concepts of APTrol Includes the use of femily pert programming end subroutines. Two lecture, or permission of instructor
4571. Machine and Tool Dasign. (3). (4591). Siudy and application of basic machine alaments in assemblias. Layout of fixtures, ings and dias for production tooling. Two lecture.
three laboretory hours per week. PREREQUISITES: TECH 2511 three labor
and 3401
4950-6950. Product Safoty Managamant. (3). (3921. 3931). Study of modern concapts of accidant pravantion by maans of safety analysis Analysas of rasponsibilities and requirements of managament in producing safe consumar products. Emphasis on electrical and mechanical hazards.

## Q890 SUPPORTING COURSES (TECH)

1010. Introduction to Computer Uage. (3). Instruction on how computars operata. Methods of communicating with computers through input and output davicas. Elemantary and familiar calculations programmed in BASIC. Hands-on oparational expariance with ramote terminal equipmant. Two fecture. three faborato
Schooi Mathamatics.
1011. Introduction to Technology. (1). Emphasis on enginaering tachnology programs as io content and opportunities upon graduation. technical applications, calculations and proachas to basic research tachniques and problem solving. 2411. Introduction to Instrumantation. (3). Basic mechanical and electrical instruments usad in measurement of tamperature, pressure, and flow. PREREQUISITE: Course
establishad for and limited to studants anrolled in nuclaar establishad for and
studies programs.
1012. Analyaia for Enginaering Technology. (4). Application of mathematicat, sciantific, and anginearing principles to solution of tachnology problems, using a variety of examplas
from various major araas in Technology. Studants analyze and provida accaptabla solutions to ascending ordar of wall dasignad problems using languaga and techniquas or ralatad technologcial disciplines and selected areas of mathamatics, such as aigebra, trigonomatry, calculus, and differential equaRIOnS Three lecture. thr
1013. Computar Applicationa in Nuclear Power. (3). Specialized course in applications of computer technology within the nuclear power ganaration sysiam. Inciudas ovar-
viaw of digital logic and hardward, programming fundamantals viaw of digital logic and hardward, programming fundamantals and nuclear applications. PREREQUISITE: Course established for and limitad to studants enrolled in nuclaar studias programs. and pneumatic systams; emphasis on fluid instrumantation. control, and measuramant. Two lecture, three laboretory hours per week PREREQUISITE: MATH 1213
3400 . Forces and Force Syatems. (3). Force systems and their solution, that branch of mechanics which daals with forces and affecis of forces acting upon rigid bodias at rast.
PREREQUISITES. TECH 2944 PHYS 2111 3401. Strength of Meterieie. (3). AnalysIs and
siructural meterials. PREREQUISITES: TECH 3400
1014. Industrial Metariela. (3). Properties of structural materiels and methods used to tesi for these properties.
1015. Meteriela Testing Precticum. (1). Quelitetive material properties with emphesis on standards, specificetions, and methods of tesing elong with significance of date collected es well as practice of interpreting and preparing reports of results
of investigation. PREREQUISITE. Junior standing in Techof inves
1016. Materiaia Structure end Propertiae. (3). Environmantel considerations. properties (both microscopic and macroscopic), testung end classification of materials in tha nuclear power industry Processing, fabrication and application of ferrous and non-ferrous metels, ceramics and polymers.
PREREQUISITE: course esteblished and limited to student anrolled in nuciear studies progrems
1017. Project Cost Evaluation i. (3). Industrial as well as personal finencial aituetions and how they ere affected by interest rates end "Time Value" of money. Invertigetion of economic elternetives including applicetions of existing formulas, iechniques, end methods. Three lecture hours per
week. PREREQUISITE junior stending or permission of week. PR
instructor
1018. Project Coat Eveiuetion II. (3). Continuation of atudy of formulas and techniques used to evaluete finenciel alternatives to personal and industriel cost projects. Emphasis on enalysis of tax structure and how it influences selection of
optimum finencial eiternatives. PREREQUISITE: TECH 3440. 3650. Automated Syatems in Technology. (3). Computer configurations in design end production including programming lengueges, systems progrems, epplicetion progrems and perıpherel devices Plenning for eutometion, evaluetion of turnkey systems, methods of implementerion end costjustification ara elso considered. Three lecture
PREREQUISITE. TECH 2251 and TECH 3440.
1019. Induatriel Arts Electronica. (3). Brief coverege of applied electronica for prospective teachers Two fecture. 3940. Analytic Approachas to Public Fire Protection. (3). Systems anslysis and its useand limitations in fire protection and other probiem oreas Illuatrated with case studies and models uaing the syatama approach to fire suppression and aeeking 8.P S. degree in Fire Adminiatration or Fire Prevention Technology
1020. Fire Related Humen Fectora. (3). Dynemice of human behavior in fire incidents releted to building design, codes and ordinances. and other fire prevention prectices PREREQUISITE admiseion restricted to students seeking B P S degree in Fire Administration or Fire Prevention Technology
1021. Fire Protection Siructure end Syateme Design. (3), Design principles invalved in protection of atructure from fire involvement Empirical teats end prediction procedurea Control
detection, and auppresesion syatem design prectices Fundsdetection, and auppreseion syatem design prectices Funds-
mentals of hydreulic deaign of sprinkler end water sprey mentels of hydroulic deaign of sprinkler end water sprey
restricted to students seeking 8.P.S. degree in Fire Adminis3946 . Incendiary Fire Anslyale
Procedures and tachniguas fols and Inveatigation. (3). analysis of physicalevidenca related collection, comparison, and evidence of ignition phenomenon to propegation variablas: lagislative, economic, psychological, and sociological variablas of incendiary fire; role of insurance and governmant programs. PRERE QUISITE: students of B.P.S. degree in Fire Administration or Fire Prevention Technology program.
1022. Fire Dynamics. (3). Fira propagation phanomenon in both fuel and air regulated phases; variablas in pre- and postflashover fire developmant, gaomatric, material, gaseous, luid flow, and thermodynamic parameters, compartment and in Fire Administration or Fire Prevantion Technology program.
1023. Applicatione of Fire Reaearch. (3). Fire rasearch and its application; transfer and implications of avaiiable rasearch results for fire pravantion and protaction programs; nationai and international studias and resaarch davelopmants. PREREQUISITE: studant of B.P.S. degree in Fire Administration or Fira Pravention Technology program.
1024. Energy and Power Technology. (3). Principles of anergy systems and power mechanics to include energy sources, covarsion and transmission. Intarnal and axternal combustion enginas include gasolina, diesel, jet, and rockers. laboratory experimants and problem of small energy and laboratory experimants and problem of small energy and 4375. Crafts for Taachera. (3). Siudy and experience with craft matarials.
4381 . Principias of Suparvision. (3). Functions of supervisory personnel. PREREQUISITE: Senior standing or permission of instructor.
1025. Problams in Technology. (3). Study and research in specific area. PREREQUISITE: senior classification for majors and minors in Tachnology who offar satisfactory evidence of
being qualifiad to benefit from course.

## 0895 VOCATIONAL-TECHNICAL EDUCATION (VTED)

1011. Introduction to Induatriai Education. (3). Qverview of programs in vocational, technical, and industrial arts aduca tion. Includes history and davelopment, aims and objectives.
1012. Cooparative Occupational Education. (3). (Same aa DTED 3010 ). Introductory study of occupational education programs which usa work experience coordinatad with relatad in-school instruction
1013. Manipulative Skill in Occupationai Speciaity. (3-15). granting degrea or acceptance of nationally administarad granting degrea or acceptance of nationally adminis
1014. Knowledge of Releted Subjecte to Occupetionel Specielty. (3-16). Credit determined by performance evaluetion by department grenting degree or ecceptence of nationally administered eveluation program. PREREQUISITE: Junior standing.
1015. Qccupetionel intarnship. (6). Cooperatıve work experience progrem for persons having neither saleeble skills nor work experience edequete to meet certification requirements. PREREQUISITE. Permission of advisor.
1016. Job Anslyaia. (3). Systems epproach to identifying and apecifying content in vocational-technical education, components of instructional system, identification of student needs and abilitie
tional objectives.
4120.6120. Curriculum Building in Industriai Education. (3). Basic rechniques in curriculum plenning in industriel education including planning and preparing learning sequence, prepering learning ectivities, selecting end prepering jearning resources end eveluating student performence
4130.6130 . Orgenizetion and Qperation of Youth Orgenizatione. (2). Development and operation of youth organizefions in vocetional training programs. includes youth orgenization development, history of youth organizations in America,
parliamentarylew, youth orgenization ectivityend competition.
4140.6140 . Organization end Utilizetlon of Advisory Committees. (2). Development end utilization of edvisory committees in vocetional educatıon training. Includes different committees, their functions, utilizetion, end role of local lebor merket.
4210-6210. Methode of Teeching Industrial Educetion. (3). (Same ae SCED 3384). Understandings and akills required or planning. utilizing. end evaluating insiructional methodologies end techniques used in industriel education. Three 4220. Vocational-Technicel Inatructionai Meteriels. (3).
Selection, use, and construction of audiovisual materiels for Selection, u8e, and construction of audiovisual materiels for vocetionel-technicel education. Emphesis on integretion of REQUISITE: VTED 4210 or permission of instrucior.
1017. Anelyala of Teaching. (3). (3301). Micro-teeching demonstrations plus observations and eveluation by feaching experience in vocetional-technicel subject specialty. PRE. REQUISITE: VTED 4210.
1018. Meeaurement and Evaluation in Industrial Educetion. (3). Survey of test and measurement techniques with emphasis on performance eveluation used in industriai educetion COREQUISITE. VTEO 4120 or permission of instructor
4361-6361. Qrganizetion and Menagement of the School Shop. (3). Understending and application of vocationel treining pogrem orgenization end clessroom monegement Includes leyout, equipment, fecility update, curriculum uilization, and leyout, eq
budgeing
4362-6362. Shop Equipment Maintenance. (3). Undertanding of preventive maintenence, meintenance and calı
bration of instruments and power equipmant used in industrial
education shops. education shops.
4363-6363. School Shop Safety. (3). Overview of evolving school sefety standards as prescribed by QSHA and TOSHA. Understanding and application of safety standards. Includes QSHA and TOSHA standards, fire prevantion, C.P.R., school shop safety programs, and accident prevention.
$4611-6611$. Principies and Philosophy of Vocational Education. (3). (Same ee DTED 4611 ). History, philosophy principles and objectivas of vocational education; curriculum probiems; contribution of vocational-technical education to general organization and classroom management. Includes organization managament, administration, training area iayout, equipment, facility update, curriculum utilization, and budgating.
1019. Techniquea of Coordination of Cooperative Qccupetional Education. (3). (Sama a DTED 4641). Selecting training agencies; devaloping job analysas; selecting and briefing training supervisor; selecting and working with advisory committees; utiiizing othar community rasources
PREREQUISITE VED 3010 PREREQUISITE: VTEO 3010.
1020. Problema in Vocationai-Technical Educetion. (1-3) Independent study and complation of a term paper dealing with a currant operational problam in vocational-
1021. Curriculum Problams in Vocational-Technical Education. (1-3). Indapendent siudy and complation of a term paper dealing with a currant curriculum problem in vocational technical education. PREREQUISITE: Parmission of instructor 4871, Seminar in Vocationai-Technical Education. (1-9) operational problems in vocational-technical education.
1022. Student Teaching. (9). (4841.) In-school axparience undar the supervision of a qualified insiructor of the ing. ( $\mathrm{S} / \mathrm{U}$ ).
4911-19. Exparianca in Vocetional-Technical Education. (1-9). Advanced trainıng in industry for instructors desirıng to up-date thair skills or to add other skills related to their occupational spacialty.
1023. Confarence Leaderahip in Vocational-Technical Education. (3). Tachniques and stratagies used to direct small group conferences in aducation or industry toward specifiad goals through discussion and intaraction.

MECHANICAL ENGINEERING
PROFESSOR E. H. PERRY, P.E., Chairman
Room 312A, Engineering Building

## Q870 MECHANICAL ENGINEERING (MECH) <br> 1307. Mechenicel Engineering Computing. (3). Continuation of ENGR 1006, with emphasis on computer solutions of mechenical engineering problems. <br> 2332. Dynamice. (3). Kinematics and kinetics of particles and rigid bodies. PREREQUISITE: CIVL 2131 <br> 2362, Procesa Principles for Chamicai Engineers. (3), Stochiometric analysis of chemicel reections. Investigation of homogeneous mixiures and phase equilibria. Emphesis on treatment of material and energy belences of chemical process systems. CQREQUISITE: MECH 2332. <br> 3305. Mechenicel Inatrumentetion end $M$ aesurement. (3). Accuracy, precision and stetistical consideration of measurement dete: dynemics of meesurement; displecement, velocity ecceleration, force, torque, pressure end tempereture meaSurement, mechanical impedence; meesurement of fluids end instrumentation systems. Two lecture. three leboratory hours per week. PREREQUISITE: MECH 2332; ELEC 2201, 2203.

3311. Engineering Thermodynemics 1 . (3). Laws of ther modynamics and their applications to engineering problems. PREREQUISITE: MATH 2322; PHYS 2512.
3312. Engineering Thermodynemica II. (3). Applicetıons of thermodynemics lews; emphesis on real gases, real gas
mixtures, combustion, ges cycles and vapor cycles. PREREQmixtures, combustion, ges cycles and
UISITES MECH 3311, CHEM 1112
3313. Dynamica and Control of Machinea 1. (3). Dynamics analysis of mechenisms including rigid body dynamics and belencing of mechines. Introduction to linear mechanical aystems and stability enalysıs of linear mechanicel systems. PREREQUISITES: MATH 2322, MECH 2332.
3314. Mechanica of Moteriale. (3). Analysis of stress and atrein of deformable solids. tenaion, compression, torsion and atrein of deformable solids, tention,
flexure. PREREQUISITE: CIVL 2131.
3315. Mechanical Deaign end Anelysis. (3). Methodology and prectice in designing mechine components by integrating principles from mechanics of meteriels, failure theory, fatigue. economics end other principles. PREREQUISITES: MECH 3322.
3325, Meteriale Laboratory. (1). Materials testing and evaluetion. Three loboretory hours per week. COREQUESITE:
MECH 3322 . PREREQUISITE. MECH 3361 or consent of
3316. Mechenice of Fluide. (3). Stetics end dynemics of fluids, epplications to measurement of properties of water and eir flows PREREQUISITE: MECH 2332.
3317. Fluids Laboretory. (1). Principles of fluid mechenics ore demonatrated and verified Femiliarizetion with instrumentation end techniques in organizing and reporting results of experimental investigations. Three leboretory hours per week. CQREQUISITE: MECH 3331 .
3318. Mechenicel Enginearing Analyala. (3). Engineering merhods, classical analysis. computer techniques, end their interections with mechanical engineering problems. PRE-
REQUISITE: MATH 3391 . REQUISITE: MATH 3391
3319. Meterials Science. (3). Structure and properties of solids; modification of structure for anginaaring purposes; charactaristics of polymers, ceramics, and metals. PRE-
REQUISITE: PHYS 2512, CHEM 1112 . REQUISITE: PHYS 2512, CHEM 1112.
3320. Mass Transfer Operetions for Chemicel Engineers.
(3). Principles of diffusion and mass transfer between phases. 13). Principles of diffusion and mass transfer between phases. Applications of mass transfer in distillation, extraction, gas absorption, humidification and drying. PREREQUISITE: MECH 2362.

4303-6303. Advanced Mechanicel Instrumentetion. (3). Application of mechanical instrumantation into integrated measuring systems. Microprocessor and microcomputer applications. Analytical and experimental investigations with laboratory investigations and demonstrations. PREREQUISITE: MECH 3305.
4309. Ges Dynamics. (3). Thermodynamics of fluid flow including dynamic and energy relatio
flows. PREREQUISITE: MECH 3312 .
4311. Heet Transfer i. (3). Fundamentals of conduction and convection heat transfer. Discussion of Fourier Series, Laplace transforms, and Numerical methods used in heat transfer analyses. PREREQUISITE: MECH 3312.
4312. Power Generetion. (3). Application of principlas of thermodynamics, fluid mechanics and heat transfer to conthermodynamics, fluid mechanics and heat transfer to con-
version of useful energy. Includes terrestrial and thermoversion of useful energy. Includes terrestrial and thermo-
dynamic limitations, power plants, nuclear energy, solar dynamic limitations, power plants, nuclear energy, solar
energy, and direct energy conversion. PREREQUISITE: MECH energy
3312.
4313-6313. Heat Transfer II. (4). Principles of boiling,
condensing, and radiation heat transfar. Fundamantals of héat exchanger design. PREREQUISITE: MECH 4311.
4315-6315. Heeting. Ventiletion and Air Conditioning. (3). Psychrometric analyses, heating and cooling loads of buildings and analysas of air conditioning systems. COREQUISITE: MECH 4311
4316-6316. Energy Conservation end Menegement. (3). Energy conservation including combustion, hear distribution, heat rejection, heating system efficiency, etc. Effects of energy production and utilization on environment. Problems of energy managemant. PREREQUISITE: MECH 4311.
4317-6317. Fundamentels of Soler Engineering. (3). Introduction to engineering applications of solar energy including solar energy collectors. storaga systems, and uses such as power generation and heating and cooling of buildings. COREQUISITE: MECH 4311.
4318-6318. Combustion. (3). Concepts of high temperature and chemically reacting gases. Adiabatic flama tamperature. Kinetics of reactions. Detonation. Products of pollutants in combustion systems. PREREQUISITE: MECH 3312.
4322. Mechenicel Design. (3). Analytical treatment of methods used in design process including creativity, probability, and optimization as applied to design process, from concept through preliminary design to final design. PREREQUISITE: MECH 3323.
4323. Mechine Design. (4). System design concepts applied to machina components; integration of these components into an overall system. Design project assigments. PREREQUISITE: MECH 4322.
4325-6325. Advenced Mechenics of Meteriels. (3). Unsymmetrical bending and torsion of flexural members of noncircular cross-section, beams, on elastic foundations and other selected topics; deformations beyond alastic limit, theories of failure. PREREQUISITE: MECH 3322.
4326-6326. Biomedical Systems Anelysis-Mechenicel. (3). (3326). Introduction to concepts used in analyzing living (3y26). Introduction to concepts used in analyzing
systems. Simulation of body functions with mechanical and systems. Simulation of body functions with mechanical and
computer models. Familiarization with design of machanical computer models. Familiarization with dasign of machanical bioengineering devices such as heart valves, heart-lung machines, renal dialysıs
MECH 2332 , MECH 3322 .
4331. Turbomechinery. (3). Aerodynamics and flow of fluids in stationary and rotating passages. One, two and thrae dimensional analysis. PREREQUISITE: MECH 3311, 3331.
4335. Thermodynamics and Heet Transfor Leboretory. (1). Instrumentation and measurement techniquas used in thermodynamics and heat transfer studies. Experimental verification of basic principles with emphasis on orgenizing and reporting of basic principles with emphasis on orgenizing and reporting
of results. Three leboratory hours per week. PREREQUISITE: MECH 3312. COREQUISITE: MECH 4311.
4344. Dynemics and Control of Mechines II. (3). Analysis of mechanical vibrations for multi-degrees of freedom systems and response, control and stability of mechanical systems. PREREQUISITE: MECH 3321.
4345-6345. Design of Mechanisms. (3). Graphical and analytical mechanism synthesis techniques for path generation, function ganeration, rigid body guidance and optimization of forca transmission characteristics. PREREQUISITE: MECH 3321.

4346-6346. Mechanical Controls. (4). Fundamental control system concepts, the Laplace transformation, modeling of mechanical control system alements, design of mechanical systems and stability criteria. PREREQUISITE: MECH 3321. COREQUISITE: MECH 4344.
4350-6350. Mechenics for Biomedical Engineers. (4). Analyses of the bond and joint structure of the body related to the basic mechanical equations and properties. Mathematical modeling of bone structure, mechanical properties, static loading, dynamic loeding, fatigue, wear, corrosion. PREREQUISITE: MECH 3322, 3361.
4352-6352. Fluid Mechenics for Biomedicel Engineers. (3). Elements of hydrodynamics, cardio-vascular system, flow of fluids in tubes with elastic walls, pulsatile blood flow input impedance and pulse waves, vascular walls, flow through arterial walls, models of circulation system. PREREQUISITE: MECH 3331.
4354-6354. Heet end Mess Trensfer for Biomedicel Engineers. (3). Heat transfer, mass transfer, and heat-mass conversion in biological systems. First and second laws of thermodynamics applied to biological systems. PREREOUISITE: MECH 4311.
4356. Fundementals of Rehebilitetion Engineering. (3). Concepts of rahabilitation engineering and the roles of the rehabilitation angineer. Introduction to various mobility and communication aids used to assist physically handicapped persons. PREREQUISITES: MECH 3321, MECH 3322.
4361. Metellurgy. (4). Physical metallurgy. heat traatment, and metallography. Three lecture, three laboratory hours per week. PREREQUISITE: MECH 3361.
4362. Chemical Engineering Unit Operations Laboratory I. (1). Selected laboratory experiments on fluid flow, heat and mass transfar. Experimental varification of basic principles with emphasis on organizing and reporting results and recommendations for equipment design modifications. Three leboratory hours per week. PREREQUISITES: MECH 3331, MECH 4311. COREQUISITE: MECH 3364
4363. Chemicel Engineering Unit Operations Leboratory II. (1). Selected laboratory axpariments on mass transfer, chemical reaction kinetics, and process control. Experimantal verification of basic principles with emphasis on organizing and reporting results and recommendations for equipment design modifications. Three laboretory hours per week. PREREQUISITES: MECH 3364; MECH 4364. COREQUISITE: MECH 4368.
4364. Chemicel Reaction Engineering. (4). Application of chemical kinetics, mass and energy transport to dasign and operation of chemical reactors
4366. Chemical Engineering Process end Project Design I. (3). Synthesis of principles of material and energy balances thermodynamics, heat, mass, and momentum transfer, and reaction engineering with engineering economic analysis in process and plant design.
4367. Chemicel Engineering Process end Project Design II. (3). Design and costs of different types of process equipment along with factors, such as structural design, equipment along with factors, such as structural design, equipment plant designs. Application of computers to design problems.
4368. Chemicel Process Control. (3). Methods of process control, types and characteristics of controllers, process modeling, system analysis, and selection of controllers. PREREQUISITE: MECH 4311 , MATH 3391.
4371-6371. Mechenicel Vibrations. (3). Kinematics of harmonic and non-harmonic vibrations; system of one and several degrees of freedom, free and forced vibrations; selfexcited vibrations. PREREQUISITE: MATH 3391 , MECH 3321 4381. Manufecturing Engineering Design. (3). Machines, tools, and processes usad in modern production. PREREQUISITES MECH 3322; MECH 3361
4382. Menufacturing Enginearing Design. (3). Design of electromechanical systems for manufacturing procasses and production operations. Design based on optimization of manmachine interaction, selection of materials and the manufacturing process for high speed production equipment. PREREQUISITE: MECH 3322, 3361.
4391. Mechenicel Enginearing Projects. (1-3). Independent investigation of mechanical engineering problems in consultation with instructor. PREREQUISITE: permission of instructor.

## U970 NURSING (NURS)

3000. Advenced Phermecotherapeutics in Nursing. (3). In epth pharmacotherapeutic approach to selected disease states and its application to nursing intervention. PREREQUISITES: CHEM 1051, 1052
3001. Individuelized Study. (1-3). Directed individualized approach to increase nursing knowledge. understanding, end skills according to student needs and level objectives. Assessment of student determines content areas and clinical experience needed. May be repeated for maximum of 6 credit
hours. Credit not applied towerd B. S.N. degree.
3002. Nursing Theories. (3). Introduces conceptual thinking and theoretical analysis of contemporary theories of nursing and related disciplines with application to nursing research end practice. Open also to special students with permission of instructor.
3003. Heelth Assessment. (3). (3100). Aspects of comprehensive health assessment of individuals and families, interviewing and history taking as well as physical essessment skills: problem oriented record as method of organizing data. One lecture, four /eboretory hours per week. Open also to special students with permission of instructor.
3004. Clinicel Nursing l. (3). (3100). Nursing process in giving primary care to individuals and families in community setting. Emphasis on direct care, wellness, communication, and problem solving skills. Two lecture, two clinical /eboretory hours per week. PRE-or COREQUISITE: NURS 3002. 3101.
3005. Clinicel Nursing II. (6). Focusing on nursing process in giving primary and secondary care to individuals and families with chronic health problems in community settings. Group membership skills emphasized. Four lecture, four clinicel leboretory hours per week. PREREQUISITE: NURS 3102. PREor COREQUISITE: 810 L 3440. NURS 3000.
3006. Clinical Nursing III. (6). Emphasizes conceptual epproach in nursing process for clients of all age groups with complex health problems. Clinical experience focuses on developing role of professional nurse in secondary and tertiary health care settings. Four lecture, four clinicel laboratory hours per week. PREREQUISITE: NURS 3200. PRE- or COREQUISITE: NURS 4100, EDRS 4541.
3007. Nursing Leedership. (3). Theory, reseerch, end practice of leadership roles in nursing groups within health care system; such concepts as communication, status, power motivation, chenge, conflict resolution, job setisfection, end
decision making in relation to nursing process and practice in groups. Open also to special students with permission of instructor. PREREQUISITE: NURS 3200.
3008. Clinicel Nursing IV. (6). Incorporation of curricular concepts into synthesizing end resocializing process. Student responsible for identifying specific learning objectives in selected area of nursing practice; for demonstrating a professional role change through application of curricular concepts, nursing theories, and relevant research findings within framework of nursing process: and for demonstrating synthesis through re-evaluation of personal nursing philosophy. Two lecture eight clinicel /eboretory hours per week. PRE-
REQUISITE: NURS 4000 . PRE- or COREQUISITE: EDRS 4542.
3009. Topics in Nursing. (3). Individual or group investigation into new or special interest areas in the delivery of health care. Mey be repeeted when the topics varies. NOTE: A maximum of three hours mey be applied to the B. S.N. degree
3010. Independent Study. (1-3). Directed study and/or reseerch in selected area of nursing. May be repeated for maximum of 7 semester hours of credit. PREREQUISITE: Senior stending and permission of feculty.

## THE UNIVERSITY COLLEGE

Tha following coursas are opan to students enrollad in the University Collage. Othars may enroil with the permission of the Dean of the College.
The specific content of Liberel Studies end Thematic Studies courses will very from semester to semester; general course descriptions are presented here.

R950 LIBERAL STUDIES (UNIV)
1010. Communication 1 , (6). Exercises in critical listening and interpretetion end in effective writing end speaking besed on rhetoricel enelyses of selected documents ( $e$. $g$., essays, documentary films, nerretives, plays, poems, speeches, etc.) PREREQUISITE: epplication or admission to University College. or permission of dean.
1020. Communication il. (6). Research into end critical interpretetion of those media which create environment of symbols and of effects of such environments on human belief end ection; for exemple, writing in periodicel and book form, redio, television, film, recorded music end systems of electronic communication. Individuel reseerch into symbols used for PREREQUISITES: UNIV1010 or ENGL. 1101 and ENGL 1102 or PREREQUISITES: UNIV 1010 or ENGL 1101 and ENGL 1102 or College or permission of deen.
1210. Humanities. (6). Research into and criticel interpretetion of mejor documents end symbols of Western civilizetion; emphasis on man's attempt, in philosophy, religion, history, litereture, and fine arts, to frame coherent place for himself in world. One or two historical periods stressed. PREREQUISITE:
applicetion or edmission to University College, or permission applicetion or edmission to University College, or permission
of dean. 1410. Social Science. (6). Introduction to fundamental concepts used by disciplines of enthropology, economics, politicel science, geography, psychology and sociology. Emphasis on understending human behavior through study of culture, society and its institutions, personelity and mentel processes, allocetion of resources, end distribution of power.
Students encouraged to develop a sociel science perspective
on humen behevior through study of important research findings end reseerch of their own. PREREQUISITE: epplication or admission to University College or permission of deen.
1610. Naturai Science. (6). Basic processes of physical and natural science as applied to selected areas of biology, chemistry, geogrephy, geology, and physics. Formuletions of models and use of inductive reasoning in study of physicel phenomene used to illustrate interreletionships emong natural science disciplines. Leboratory work included. PREREQUISITE: applicetion or edmission to University College, or permission of dean.
1810. Leiaure and Recreation. (4). Relationship between leisure, recreetion, and work; emphasis on balanced lifestyle. Opportunities to participate in end demonstrate selected recreetional skills and activities. PREREQUISITE: application

R950 THEMATIC STUDIES (UNIV)
3600-3699. Themetic Studies. (6-9). Interdisciplinary seminers ebout significant problems, themes, or ideas. Specific course descriptions each semester in "Addenda" section of Schedule of Classes. PREREQUISITE: application or admission to University College, or permission of dean.
4600-4699. Advenced Thematic Studies. (6-9). Advanced interdisciplinary semınars ebout significant problems, themes, or ideas. Specific course descriptions each semester in "Addende" section of Schedule of Classes. PREREQUISITE: Application or admission to University College or permission of the Dean.

## R950 INDIVIDUALIZED STUDIES (UNIV)

1006. Directed Study. (1-3). Directed study at introductory level. Student may seek permission to study under faculty direction in an area not routinely taught. This course May be repeated for meximum credit of six hours. PREREQUISITE; oppliceti

2110 . Field Experience. (1-6). Supervised on-site training in basic skills. May be repeated up to e maximum of 6 hours. 3700. Special Topics. (3-6). Examination of selected topics announced in Schedule of Classes
4110 . internship. (3-6). Supervised training in work related to student's educational objectives. Mey be repeated to maximum of 12 hours. PREREQUISITE: admission to University College.
4380. Independent Study. 11-3). Directed individual study or research. Student who hes identified area of study pertinent to his coordinated study program. but not routinely taught, may pursue the study under direction of faculty member. May be repeated to maximum of 6 hours. PREREQUISITE: admission to University College.
4700. Advanced Special Topics. (3-6). Advanced examination of selected topics announced in Schedule of Classes.
4996. Speciel Project. (9). Academic reseerch or other creative activity resulting in tangible product to demonstrate synthesis of student's Coordineted Study. PREREQUISITE admission to University College and completion of a Thematic Studies course (UNIV 35-). Students will receive an in progress grade or a letter grade.

R950 EXPERIENTIAL LEARNING (UNIV)
A portfolio describing and documenting knowledge gained through experience or non-traditional instruction may be prepared by a University College student for assessment by a faculty member. (See Fees end Charges and Acedemic Reguletions sections for more details.) That faculty assessor recommends the descriptive title, level, and amount of credit to be assigned by the dean of University College.
1900-1999. Introductory Level Experiential Leerning in (descriptive title).
2900-2999. intermediete Level Experientiel Leerning in (descriptive title).
3900-3999. Advenced Levei Experiential learning in (descriptive title).

# INDEPENDENT DEPARTMENTS AND PROGRAMS 

# AEROSPACE STUDIES <br> COLONEL DOUGLAS W, STOCKTON <br> Professor of Aerospace Studies <br> Room 404, Jones Hall 

## V950 AEROSPACE STUDIES (AERO)

1111. Air Force Today. (1). Study of world military forces through treatment of $U$. S. Department of Defense end doctrine, mission and functions of United Stetes Air Force. One class hour per week and one hour of Leadership
Laboratory.
1112. Air Force Today. (1), Continuation of AERO 1111. One class hour per week end one hour of Leadership Labor atory.* 2211. The Development of Alr Power. (1). Introduction to study of eir power. Historical perspective starting before Wright 8 rothers and continuing through eerly 1970 's. One class hour per week and one hour of Leadership Laboratory." 2212. The Development of Air Power. (1). Continuation of AERO 2211. One class hour per week and one hour of Leadership Laboratory.

## PROFESSIONAL OFFICER COURSE

3211. Aeroapace Studles Four-Wook Field Training. (4). Twentr-eight dey course conducted during summer at active installation of USAF; consists of approximetely 185 hours of instruction in Air Force bese functions, leadership, physicel training, Air Force environment, career orientation, and survival training. Students assigned to groups of twenty-five and individually counseled and evelueted on their perforREQUISITE: AERO 1111,1112, 2211, 2212, or equivelent.
3212, Aarospace Studios Six Week Field Training. (8). Forty-two dey course conducted during summer at ective instellation of USAF; Consists of approximately 258 hours of instruction on role of military forces, organization of Defense Depertment, instruments of national security. Air Force bese functions, leadership, physical training and Air Force environment. Students are assigned to groups of approximately twenty-five and individually counseled and evelueted on their performance.
3212. Air Force Management end Leedership. (3), Professionelism, leadership and manegement. Includes meening of professionalism, professional responsibilities, militery justice system; leadership theory, functions end practices; menagement principles and functions; problem solving; and menegement, tools, prectices and controls. Three class hours per week and one hour of Laadership Laboratory.
3213. Air Force Management and Leadership. (3). Continuation of AERO 3311. Three class hours per week and one hour of Leadership Laboratory. ${ }^{\text {- }}$
3214. Nationai Security Forces in Contemporary American Society. (3). Fundementel issues endrequirements of national security. Extensive study of civil-military relations, nature of inter netional environment and strategic requisites for defense. Three class hours per week and one hour of Leadership Laboratory.*
3215. Nationai Security Forces in Contemporery Americen Society. (3). Continuation of AERO 4411 . Three class hours per week and one hour of Leadership Laboratory. *
3216. Eiementary Aeronautics. (3). Introduction to aviation and the fundamental principles of flight; besic meteorology end its applicetions to eviation; use of navigetion computers, instruments, end redio aids; besic regulations governing eirmen, aircraft operations, and flight sefety. preparation for
FAA Private Pilot Written Exeminetion. Three class hours per FAAPr
-Leadership Laboratory. Evolves eround cadet corps, e microcosm of en Air Force organization. Opportunity for actuel leadership treining experiences as it is largely cedet plenned and operated. Additionelly, steff uses it as a meens to eveluate end develop leedership potentiel. One hour per week.

## AUDIOLOGY AND SPEECH PATHOLOGY <br> PROFESSOR DANIEL S. BEASLEY Chairman <br> Speech and Hearing Center 807 Jefferson

The Department of Audiology end Speech Pathology offers mejors at the greduete level only

4100-6100. Audiology. (3). Directed toward undergraduate tudents from disciplines other than communicetion disorders. ncludes nature of sound, structure and function of the humen uditory system, disorders of heering, meas urement of hearing and loss, hearing conservation, end aural rehebilitation.
4200-6200. Speech Pathology. (3). Communicetion disorders with special reference to those encountered by educetors and others in population 0-21. Observation and discussion of clessroom management, roles of various specielists, and parent conferences.

## INTERNATIONAL STUDIES <br> ASSOCIATE PROFESSOR <br> JAMES K. MUSKELLEY, Director <br> 310, Winfield Dunn Building

Courses offered for the Internationel Studies program with the cooperation of two or more University depertments ere listed below. Although some of the interdepartmentel courses et the upper-division level ere designed primarily to serve the needs of students perticipating in interdisciplinary programs, enroll ment in the courses is not limited to these studies.

## V935 INTERNATIONAL STUDIES (INTL)

1101. Anaiysis of Developing Nations. (3). Interdisciplinary survey of developing nations, other societies end problems of technologicelly developing nations. Basic concepts and methods of social sciences employed to study processes of methods of social sciences employed to study processes of when taken with its sequence INTL 1102 has been approved to satisfy the social science requirement of the University Collega satisfy the social sciencerequirement of the University Collega 1101-1102 ond UNIV 1410 .
1102. The Third World: A Regionai View. (3). interdisciplinery survey of contemporery developing netions within a mejor world region. Regionel focus on Africe, Latin America Southeest Asie, or Indien Subcontinent
1103. Seminar in Latin American Studies. (3), Interdisciplinary seminar; focuses on specific theme or region in Letin America and incorporates significant materiels from severe disciplines in progrem in Latin American Studies. Written
report will be presented for panel discussion. PREREQUISITE: permission of Latın American Studies advisor
1104. Seminar in Africen Studias 1. (3). Interdisciplinary seminar to integrate knowledge of Africa and to exercise competence in several disciplines through supervised research. PREREQUISITE: nine hours of course work in African studies representing three disciplines from group anthropology. geography, history, and political science, or permission of African Studies advisor.
1105. Seminar in African Studies II. (3). PREREQUISITE INTL 4301.
1106. Seminar in Internetional Relations. (3). Investigation of selected topics in international relations from interdisciplinary perspective. Individual research and presentation of major paper which integrates tools, data or concepts of two or
more disciplines. PREREQUISITE: permission of International more disciplines.
Relations advisor.

## MEMPHIS STATE UNIVERSITY LIBRARIES PROFESSOR LESTER POURCIAU, Director Room 101 A. Old Brister Library

V945 MSU LIBRARIES (LBRY)
2010. Introduction to tha Use of Library Rasources. (3). Introduction to organization of academic library material emphasis on bibliographic access to information-Lectures and assigned research problems to a acquaint student with genera and specialized methods of access to library material

## MILITARY SCIENCE

MAJOR DAVID C. DE GRANGE
Professor of Military Science
Room 110, Army ROTC Building

## V955 MILITARY SCIENCE (ARMY)

1110. Laadership and the US Army. (1). Principles and techniques of leadership at small unit or group level with emphasis on communication and motivation. Study of structure and functions of components and branches of US Army. 1130. National Defense and Concept of Force. (1). Theories of conflict and cause of war. Evolution of warfare to present with considerations of elements of military power, national power and principles of war. Analys
system and foreign policy since 1945
1111. Soviat Armed Forces. (1). Organization, training, tactics. and capabslities of USSR combat units; leadership and present-day use and role of USSR armed forces.
1112. U.S and Wersaw Pact Weapons. (1). Comparative study of development, characteristics, capabilities, and use of US and WP weapon systems: small ar ms, ar mor, artillery and aircraft. Actual or training models of small arms and anti-tank aircraft. A
weapons
1113. Survival/Field Crafts. (1). Knowledge of techniques nacessary for "living off the land." Finding/catching food, navigation, and shelter. Temperate climates emphasized Culminate with optional one-day practicum.
1114. Leadership Assessment. (1). Determination of student's leadership strengths and areas requiring improvements in 12 behavioral dimensions. Identifies developmental actions required to build on strengths and to strengthen areas requiring improvement. Feedback provided from 5 performance-based simulations
1115. Basic Soldier Skills. (2). Skills required of soldiers in US Army. Includes techniques on conduct of inspactions. physical training and land navigation and practical application of drill movements and basic first aid.
1116. Combat Training of tha Indlvidual Soldier and Petrolling. (2). Emphasis on preparation of the individual for combat. Preparation of potential leaders in combat through study of the knowledge and skills needed by an individual soldier. Skill developed in planning and organizing combat patrols. Samester to culminate with optional ona-day practicum.
1117. Fireerms and Marksmanship (2). Introduction to various small arms weapons found in military and basic skills in marksmanship using smallbore weapons.
1118. Adventure Treining. 12). Advanture-type training typically conducted in US Army units including basic mountaineering and rappelling, bridging and rafting, and orienteering. Three one-day practica. One lecture hour per week. eight laboratory hours per month
1119. Tactics Strategy and War Gamas. (2). Basic fundamentals of planning, organizing and employing units in combat. The art and science of warfare, through war gamas. practice of skills in simulated situations.
1120. Special Comber Operetions. (2). Combat operations in urban, desert. and arctic terrain and of special operations units, such as airborne, alr-assault, and ranger. Emphasis on historic case studies
1121. 8asic Military Science. (1-6). Six-week training normally taken during the summer between the sacond and third years by thosa students who have not taken previous ROTC training, or who have not completed the requirad basic military science courses for advancad course enrollment. Training conducted at designated U.S. Army installation and
includas precticel exparience in leadership, small unit tactics, includas precticel exparience in leadership, small unit tactics,
weapons drill, and communications under field conditions. After completion of camp, student required to complete satisfactorily an examination admınistered by Military Science Department. Student must register for this course following successful camp completion in order to receive appropriate credit. PREREQUISITE: Permission of Professor of Military Science.
1122. Advancad Military Science I. (4). First year of the advanced course includes milit ary teaching principles, leadership and exercise of command. map and aerial photograph readıng. small unit tactics, communication, field training exercises, branches of the Army and preparation for ROTC Advanced Camp. Three lecture. two laboratory hours per week. PREREQUISITE: ARMY 1110 and 2110 and permission of Professor of Military Science.
1123. Advanced Military Science II. (4). Continuation of first year advanced course. PREREQUISITE: ARMY 3110.
1124. Advanced Camp Training. (6). PREREQUISITE: permission of Professor of Military Science
1125. Advanced Military Science III. (4). Second year of the advanced course consists of training in operations, logistics, military administratıon, military justice, personnel managemilitary administration, military justice, personnel manageduty. PREREQUISITE: ARMY 3120. Three lecture, two laboratory hours per week.
1126. Advanced Military Scienca IV. (4). Contınuation of second year advanced course. PREREQUISITE: ARMY 4110.

## NAVAL SCIENCE <br> CAPTAIN FRANCIS M. DREESSEN, Professor of Naval Science Room 1014. Art Annex

## V958 NAVAL SCIENCE (NAVY)

1100. Nevy Laboratory. (1). Two laboratory hours per week. 1101. Introduction to Navel Science. (2). Orientation and concepts of seapowar. Mission, organization, and warfare components of the Navy and Marine Corps
1101. Naval Ships Systems I. Enginaering. (3). Ship characteristics and types including ship design, hydrodynamic forces. stability, compartmentation, propulsion, electrical and auxiliary systems. interior communications, ship control, and damage control.
1102. Navy Laboratory. (1). Two laboratory hours per week.
1103. Navy Leboratory. (1). Two laboratory hours per week.
1104. Naval Ships Systems II - Weapons. (3). Theory and employment of weapons systems. Processes of detection, evaluation, threat analysis, weapon selection, delivery, guidance, and explosives
1105. Saapowar and Maritime Affairs. (3). U.S. naval history from the Revolution to the present with emphasis on major devalopments. Present day concerns in seapower and marıtime affairs
1106. Navy Laboratory. (1). Two laboratory hours per week. 3000. Naval Science Institute (NSI). (8). Intensive six-week professional academic and training program conducted each summer at a naval installation by the Chief of Naval Education and Training for students entering the Two-year NROTC Programs. The Naval Science Institute is the equivalent of the NROTC Basic Course.
1107. Nevigation and Naval Oparetions 1. (3). Piloting and celestial navigation including theory, principles, and procedures. Use of charts, visual and electronic aids, and the theory and operation of magnetic and gyro compasses. Three class hours and two hours of Navy Laboratory* per week
1108. Navigation and Naval Operations II. (3). International and island rules of the nautical road, relative-motion vectoranalysis theory, relative motion problems, formation tactics and ship employmant. Three class hours and two hours of Navy Laboratory* per week.
1109. Evolution of Warfare. (3). Historical development of warfare from tha beginning of recorded history to the present focusing on the impact of major military theorists, strategists, tacticians. and tachnological davelopments. Three class hours and two hours of Navy Laboratory* per week.
1110. Marine Corps Laadership Training. (6). Summer instruction ("Bulldog") conducted at the Marine Corps Officer Candidate School, Quantico, Virginia
1111. Neval Leedership end Menagement I. (3). Advanced study of organizational behavior and management in tha context of the naval organization. Practical applications are laboratory discussions. Three class hours and two hours of laboratory discussions. Thr
Navy Laboratory* per week.
1112. Naval Leadership and Menagement II. (1). Naval junior officer responsibilities in naval administration; builds on and integrates the professional competencies developed in prior course work and profassional training. One class hour and two hours of Navy Laboratory "per week
1113. Amphibious Warfare. (3). Historical survey of the development of amphibious doctrine and the conduct of amphibious operations. Emphasis is placed on the evolution of amphibious warfare in the 20th century, especially during World Wer II. Threa class hours and iwo hours of Navy Laboratory" per week
*Navy Laboratory. Focus on tha Midshipmen Corps. Involves leadership training opportunitias and experiencas.

## UNIVERSITY HONORS PROGRAM

PROFESSOR JOSEPH R. RILEY, Director
Room 128. Old Brister Library

A description of the Univarsity Honors Program appears in Colleges and Degree Programs Descriptions of the college Colleges and Degree Programs Descriptions of the college
and departmental programs are found with the appropriate and departmental programs ar
major and degree descriptions.

V960 UNIVERSITY HONORS PROGRAM (UNHP)
1100. The Honors Forum. (1). Series of one-hour weekly lectures. demonstrations, performances, films, student presentations, and/or discussions designed to introduce the many disciplines, areas and intellectual and cultural oppor tunities available in the Universtry. (S/U)
3100-3199. Junior Honors Colloquium I. (3). Interdisclplinary colloquium on broad theme or topic. Specific course descriptions each semester in "Addenda" section of Schedu/e of Classes PREREQUISITES: junior standing and permission of Director of University Honors Program.
3200-3299. Junior Honors Colloquium II. (3). Same as UNHP 3100, except differant the me or topic. PREREQUISITES junior standing and permission of Director of University Honors Program.
4100-4199. Senior Honors Seminar I. (3). Interdisciplinary seminar on narrower theme or topic than ones in junior honors colloquia. Specific course descriptions each semester in "Addenda" section of Schedule of Classes. PREREQUISITES senior standing and permission of Director of University Honors Program
4200-4299. Senior Honors Saminar II. (3). Same as UNHP 4100. except different theme or topic. PREREQUISITES senior standing and permission of Director of University Honors Program.
4300. Senior Honors Thesis. (3). In lieu of one of the above courses. the honors student may write a thesis on a topic approved by the University Honors Council and directed by a facuity committee chosen by the student and approved by the Honors Council. PREREQUISITES: senior standing and per mission of the Director of the University Honors Program.

## URBAN STUDIES

ASSOCIATE PROFESSOR MICHAEL TIMBERLAKE, Coordinator

Room 128. O/d Brister Library

A description of the interdisciplinary program in Urban Studies and the requirements for the major and minor in Urban Studies are listed in Colleges and Degree Programs. Courses offered by the departments of Anthropology. Economics, Foundations of Education, Geography, History, Political Science, and Sociology and Social Work are included in this program, and the descriptions of these courses will be found under the appropriate departmental headings.

## V980 URBAN STUDIES (URBN)

4001. Urban Studies Seminar. (3). Urban problems and their causes; overview of perspectives and contributions of each of six participatıng disciplines which include urban anthropology, urban geography, urban history, urban economics, urban politics, and urban sociology Summary reviaws of problems and proposed solutions in related fields presented Required for all majors.
4002. Urban Studies Internship. (3). Supervised internship working with urban agencies in city. state or national level Internshio program deals primarily with data collection and Internshio
analysis.

## INTERDISCIPLINARY STUDIES

## V933 INTERDISCIPLINARY STUDIES (INTD)

The following courses, INTD 3510 and 3511 , comprise an eight month training program in law enforcement which prapares students for seasonal employment as rangers in the National Park Service and the Arkansas and Tennessea State Park Services. The program is coordinated by the Departman of Psychology and the area of Parks and Recreation in the Department of Health, Physical Education and Recreation.
3510. Behavior Management in Recreetion Arees I. (4). Concepts of industrial training and social psychology applied to teaching content and skills raquired for people-management positions as rangers in federal and state parks. Classroom instruction, raadings and applied practical exercises included PREREQUISITE: parmission of instructor.
3511. 8ehavior Management in Recreation Arees II. (4). Advanced consideration of conter: and skills involvad in managing people who visit recreation ereas, including: abriormel behavior and humen reletions, basic accident investigetion, alcohol end drug abusa, and courtroom tastimony ard procedures. PREREQUISITE: INTD 3511 and per-
mission of instructor.

## PRESIDENT'S OFFICE

thomas g. CARPENTER, Ph.D., President
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## ACADEMIC AFFAIRS

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N. DEWAINE RICE, Ed.D., Director of Residence Life

DONA S. SPARGER, M.A., Director of Handicapped Student Services
WALTER S. WARREN, M.B.A., Director of University Placement

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BARBARA OLMSTEAD, Assistant to the Vice President for Business and Finance
BERGEN S. MERRILL, M.S.C.E., Director of Physical Plant and Planning
RAYMOND PIPKIN, M.A., C.P.A., Director of Finance
ROGER FOWLER, M.Ed., Director of Sacurity and Safety Services
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ELMORE R. ALEXANDER, Ph.D., Director of Executive Training Center
SAMUEL BRACKSTONE, M.Ed., Director of Conferences and Seminars
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Personnel Assessment and Development
MARYANNE HICKY. M.Ed., Director of Short Course Instruction
PAUL R. LOWRY, M.B.A., Director of Special Projects
JAMESK. MUSKELLEY, Ed.D., Director of Intensive English for Internationals
LEONARD D. ROSSER, D.B.A., Director of Tennessee Small Business Development Center
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CLARENCE WEISS, Ph.D., Director of Corporate Relations

## UNIVERSITY COMMUNITY RELATIONS

CHARLES F. HOLMES, M.A., Director of University Community Relations
JAMES CLOUD, B.S., Director of Art Services GILBERT F. MICHAEL, Director of Photographic Services DEBORAH W. BAKER, B.A., Director of Media Relations DIANA VAN CLEAVE, B.A., Assistant Director of Media Relations
WILLIAM E. DAVIDSON, J.D., Director of Publications THELMA DRAPER, Manager, Information Center ANTHONY B. PLUMMER, M.A., Assistant to Media Relations Director
HENRY BAILEY, B.A., Publications Editor

## RESEARCH AND SERVICES

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DANIEL S. BEASLEY, Ph.D., Director of Memphis Speech and Hearing Center
FREDERICK K. BELLOTT, Ed. D., Director of Bureau of Educational Research and Services
LEWIS B. COONS, Ph.D., Director of Electron Microscopy Center
DAVID COX, Ph.D., Director of Institute of Governmental Studies
GRAVES E. ENCK, Ph.D., Director of Aging/Life Cycle Studies
JOHN GNUSCHKE, Ph.D., Director of Center for Manpower Studies; Bureau of Business and Economic Research
ARCHIBALD C. JOHNSTON, Ph.D., Director of Tennessee Earthquake Information Center
MARTIN E. LIPINSKI, Ph.D., Executive Director of Institute for Engineering Research
EARL E. PEARSON, JR., M.U.R., Director of Regional Economic Development Center
R. NEIL SOUTHERN, Ph.D., Director of Transportation Studies Institute
NORMAN S. TRENK, M.Ed., Director of Office of Sponsored Programs

## INTERCOLLEGIATE ATHLETICS

## CHARLES CAVAGNARO, B.S., Athletic Director

LYNN PARKES, M.A., Assistant Athletic Director (Women) BOB WINN, B.A., Sports Information Director/Football MIKE FINN, B.A., Sports Information Director/Basketba/l RICHARD SANDER, Ed.D., Assistant Ath/atic Director/ Director of Tiger Clubs

## THE COLLEGES AND DEPARTMENTS

## THE COLLEGE OF ARTS AND SCIENCES

JOHN H. WAKELEY, Ph.D., Dean, College of Arts and Sciences
H. DELANO BLACK, Ph.D., Assistant Dean

THOMAS R. CAPLINGER, Ph.D., Assistant Dean
NANCY SIMCO, Ph.D., Director of Graduate Studies and Research
LISA ELDIN, M.A., Graduation Analyst
GLORIA PYNE, Ed.S., Assistant to the Dean
FRANK M. DYER, JR., Ed.D., Academic Counselor

## ANTHROPOLOGY <br> thomas w. Collins. Ph. D., Chairman

THOMAS W. COLLINS (1972), Professor, Chairman. B.S., 1957, Central Michigan University; M.A., 1962, Western Michigan University; M.A., 1967, Ph.D., 1971, University of Colorado
DAVID H. DYE (1981), Assistant Professor: B.A., 1972, Memphis State University; M.A., 1976, Louisiana Stata University; Ph.D., 198D, Washington University
RUTHBETH D. FINERMAN (1985), Assistant Professor:
B.A., 1977, M.A., 1979, Ph.D., 1984 , University of California at Los Angeles
STANLEY E. HYLAND (1976), Assistant Professor, B.A., 1969. M.A., 197D, University of Cincinnati; Ph.D., 1976, University of Illinois
MONTE RAY KENASTON (1966), Assistant Professor: B.S. 1957, University of Taxas: M.A., 1966, Washington State University; Ph.D., 1972, Southern Illinois Univarsity
CHARLES H. McNUTT (1964), Professor: B.S., 1950,
University of the South; M.A., 1954, University of New Mexico; Ph.D., 196D, University of Michigan
GERALD P. SMITH (1968), Adjunct Associate Professor, Curator of Chucalissa: B.A., 1963, Southwastarn at Mamphis; M.A., 1965, University of North Carolina; Ph.D., 1971, University of Missouri
DAVID R. STEVENSON (1979), Assistant Professor: B.A
1973, Norfolk State College; M.A., 1974, Ph.D., 1979, Ohio State Univarsity
CHARLES WILLIAMS, JR. (1979), Assistant Professor: B.A., 1969, Rust College; M.A., 1976, Ph.D., 1981. Univarsity of Illinois

## BIOLOGY

## JAMES F. PAYNE, Ph.D., Chairman

HAROLD R. BANCROFT (1962), Associate Professor: B.S., 195B, M.S., 1959, Ph.D., 1962 , Mississippi Stata University MELVIN L. BECK (1974), Professor: B.S., 1967, Arkansas Tech. College; Ph.D., 1974, University of Arkansas
CHARLES J. BIGGERS (1969), Professor: B.S., 1957, Waka Forest University; M.A., 1959, Appalachian Stata University; Ph.D., 1969, University of South Carolina
HARVEY DELANO BLACK(1970), Associate Professor: B.A., 1959. Handrix Collega; M.S., 1965, Univarsity of Arkansas: Ph.D., 1971, University of Nabraska
CARL D. BROWN (1951), Professor Emeritus: B.S., 1947, Oklahoma Baptist Univarsity; M.S., 1947, Louisiana State Univarsity; Ph.D., 1951, lowa State Univarsity
MARTHA P. BROWN (1966), Assistant Professor: B.S., 1963, M.S., 1966, Mamphis Stata Univarsity
EDWARD T. BROWNE, JR. (1967), Professor: A.B., 1948. M.A., 1950, Ph.D., 1957, Univarsity of North Carolina

LEWIS B. COONS (1976), Professor, Director of Electron Microscope Center:' B.A., 1964, M.S., 1966, Utah Stata Univarsity; Ph.D., 197D, North Carolina Stata Univarsity
KENNETH B. DAVIS, JR. (1969), Profassor: B.A., 1963, M.S., 1965, Univarsity of Arkansas; Ph.D., 1970, Louisiana State Univarsity
VICTOR FEISAL(1959), Professor, Interim Vice-President for Academic Affairs: B.S., 1958, Mamphis Stata Univarsity; Academic Affairs: B.S., 1958, Mamphis Stata Univarsity;
M.S., 196D, Univarsity of Houston; Ph.D., 1966; Univarsity M.S.. 196 D
of Georgia

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## THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS

To be filled July 1, 1985, Deen of The Fogelmen College of Business and Economics
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JOHN JOSEPH REID, Ph.D., Assistent Deen
PAUL H. WIREMAN, B B.A., Assistent to the Deen
POLLY FADGEN, Graduetion Anelyst
CAROLYN J. HANNAN, M.Ed., Coordinetor Greduete end Executive Treining
GUY J. WERTZ, M.Ed., Assistent to the Deen for Under-
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## FOUNDATIONS OF EDUCATION

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Bureau of Educational Research and Services:' B.Th., 1959, Bureau of Educational Research and Services.' B.Th., 1959,
Pentecostal Bible Institute; B.A., 1962, Union University; Pentecostal Bible Institute; B.A., 1962, Union Un
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1949, M.A., 1952, Ph.D., 1958, University of Missouri
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## HEALTH, PHYSICAL EDUCATION AND RECREATION

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## HOME ECONOMICS AND DISTRIBUTIVE EDUCATION

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## ELECTRICAL ENGINEERING <br> CARL E. HALFORD, Ph.D., Chairman

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## ENGINEERING TECHNOLOGY WESTON TERRELL BROOKS, D.Ed. Chairman

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## LIBRARIES

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## 1986-87 TENTATIVE CALENDAR

This calendar is tentative, and students should check the 1986-87 Undergraduate Catalog and the Schedule of Classes for possible changes or additions.

## FALL SEMESTER 1986

AUGUST 25-28: Off-campus registrations (exact dates, times, and locations to be announced prior to registration)
AUGUST 28: Meeting of the new members of the University faculty. University Center Ballroom 9:00 A.M
AUGUST 29: Meeting of the entire University faculty, University Center Ballroom. 9:00 A M., followed by meetings by colleges and departments
SEPTEMBER 1: Holıday: Labor Day
SEPTEMBER 2-4: Registration Week For detailed dates and times. see the Schedule of Classes for the Fall Semester, 1986 SEPTEMBER 5: Classes meet as scheduled
SEPTEMBER 11 :
Last day for adding courses
Last day for graduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be confersed in December, 1986

OCTOBER 1: Last day for removing Summer Session Incomplete" grades
OCTO8ER 2: Last day for graduate students to submit master's degree candidacy forms and doctoral candidacy forms to College Directors of Graduate Studies

## OCTO8ER 24

Last day for all students to withdraw from the University Last day for all students to drop courses

NOVEMBER 26: Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in May. 1987
NOVEMBER 27-30: Thanksgiving Holidays
DECEMBER 1: Last day for submission of comprehensive examination results to the Graduate School.

DECEMBER 5: Last day for submission of theses/dissertations to the Graduate School
DECEMBER 12: Final examinations begin
DECEMBER 20: Commencement

## SPRING SEMESTER 1987

JANUARY 5-B: Off-Campus registrations (exact dates, times, and locations to be announced prior to registration)
JANUARY 12-14: Registration Week For detailed dates and tumes, see the Schedule of Classes for the Spring Semester, 19B7

JANUARY 15 : Classes meet as scheduled
JANUARY 19: Holiday: Martin Luther King's Birthday

## JANUARY 22 :

Last day for adding courses
Last day for graduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in May, 1987
FEBRUARY 3: Last day for removing Fall Semester "Incomplete" grades
FEBRUARY 11: Last day for graduate students to submit master's degree candidacy forms and doctoral candidacy forms to College Directors of Graduate Studies

## MARCH 6

Last day for all students to withdraw from the University Last day for all students to drop courses
MARCH 15-22: Spring Holidays
APRIL 15: Last day for making application to the dean of the appropriate undergraduate college for degree to be conferred in August, 1987
APRIL 20: Last day for submission of comprehensive examination results to the Graduate School.
APRIL 24: Last day for submission of theses/dissertations to the Graduate School
MAY 1: Final examinations begin
MAY 9: Commencement

## FIRST SUMMER TERM 1987

JUNE 2-3: Registration: For detailed dates and times, see the Schedule of Classes for the Summer Session, 1987

## JUNE 4: Classes meet as scheduled

## JUNE 5:

Last day for addıng First Term courses
Last day for graduate students to file "Intent to Graduate" cards with the Graduate School Office for degree to be conferred in August, 1987
JUNE 8: Last day for graduate students to submit master's degree candidacy forms and doctoral candidacy forms to
College Directors of Graduate Studies
JUNE 19:
Last day for all students to withdraw from the University (First Summer Term)

Last day for all students to drop courses (First Summer Term) JUNE 23: Last day for removing Spring Semester "Incomplete" grades
JULY 3: Holiday: Independence Day (day before)
JULY 8: Final examinations

## SECOND SUMMER TERM 1987

JULY 13: Course adjustment day and registration for the Second Summer Term
JULY 14: Classes meet as scheduled
JULY 15: Last day to add or register for Second Summer Term courses
JULY 29:
Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in December, 1987
Last day for all students to withdraw from the University (Second Summer Term)
Last day for all students to drop courses (Second Summer Term)
JULY 31:
Last day for submission of theses/dissertations to the Graduate School
Last day for submission of comprehensive examination results to the Graduate School.
AUGUST 14: Final examinations
AUGUST 16: Commencement

## EXTENDED SUMMER TERM 1987

JUNE 2-3: Registration: for dates and times, see the Schedule of Classes for Summer Session. 1987
JUNE 4: Classes meet as scheduled
JUNE 5:
Last day for graduate students to file "Intent to Graduate" card with the Graduate School for degree to be conferred in August, 1987
Last day for adding or registerıng for Extended Term courses
JUNE 8: Last day for graduate students to submit master's
degree candidacy and doctoral candidacy forms to College
Directors of Graduate Studies
JUNE 23: Last day for removing Spring Semester "Incom-
plete" grades
JULY 3: Holiday: Independence Day (day before)
JULY 8:
Last day for all students to withdraw from the University (Extended Term)
Last day for all students to drop courses (Extended Term)
JULY 10-13-14: Mid-Term Break
JULY 29: Last day for making application to dean of appropriate undergraduate college for degrees to be conferred in December, 1987
JULY 31:
Last day for submission of theses/dissertations to the Graduate School
Last day for submission of comprehensive examination results to the Graduate School
AUGUST 14: Final examinations
AUGUST 16: Commencement

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## ARE YOU INTERESTED IN FINANCIAL AID?

Do you need assistance to help finance your college education? Loans, Grants, Scholarships and college work study are available through our office. For more information print your name and address in the space below and return this form to the address at the right. You may also phone (901) 454-2303 for information.

OFFICE OF STUDENT AID ROOM 314, SCATES HALL MEMPHIS STATE UNIVERSITY MEMPHIS, TN 38152

## ARE YOU INTERESTED IN LIVING ON CAMPUS

If so, write your name and address below and return this form to the address at the right.

HOUSING INFORMATION OFFICE DEPARTMENT OF RESIDENCE LIFE MEMPHIS STATE UNIVERSITY MEMPHIS, TN 38152

If you are planning to attend Memphis State University, you will want to give serious thought to the type of living accommodations available to you on the campus and in the community. The supply of available facilities is limited, and application does not guarantee an assignment. Early application is recommended! You need not have been accepted as a student at Memphis State in order to apply for residence hall accommodations. You must have received final acceptance prior to assuming occupancy of your room assignment. Memphis State University is committed to a policy of nondiscrimination with respect of race, religion, and national origin, and practices consistent with the University's policy are followed in housing.
HANDICAPPED STUDENT SERVICES
Information Request

Phone $\qquad$ Social Security Number $\qquad$
Disability (Please Describe)

| Return to: | Director | Section 504 of the Rehabilitation Act requires the following: <br> Handicapped Student Services <br> (A) Information concerning handicaps cannot be used in |
| :--- | :--- | :--- |
|  | 215 Scates Hall | (B) Intermining acceptance to the University. |
|  | Memphis State University | (C) Information may be submitted on voluntary basis only |
|  | Memphis, Tennessee 38152 |  |

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## INSTRUCTIONS FOR COMPLETING THE APPLICATION AND PROCEDURES FOR UNDERGRADUATE ADMISSION

MEMPHIS STATE UNIVERSITY

## ALL APPLICANTS

The application form should be completed carefully by all applicants seeking admission to any undergraduate program. Applications must be submitted prior to August 1 for fall admission; December 1 for spring admission; or May 1 for summer admission. Consideration of applications received after these deadlines will be in one of the special categories below.

A five dollar ( $\$ 5.00$ ) non-refundable application fee is required for all applicants who have not previously applied to the University. Checks or Money Orders should be made payable to Memphis State University. Applications should be returned to the Admissions Office, Memphis State University, Memphis, Tennessee 38152 . For detailed information regarding admission policies and requirements, refer to the appropriate pages of the current MSU Bulletin.

Transcripts, test scores and other academic credentials must be requested by the applicant from the issuing agency and forwarded directly to the Admissions Office. Copies of such credentials accepted from the applicant will be considered unofficial.

## REGULAR UNDERGRADUATE APPLICANTS

Freshman (no previous college), Request a copy of your high school record. If your high school graduation is through the General Educational Development (GED) program, have these scores forwarded to the office. You must submit scores earned on the ACT or SAT examination for consideration. If you have not been in school within the last six (6) months, you may request information on an entrance examination administered by the University:
Iransfer Request an official copy of your academic record from each school in which you have enrolled. Upon receipt of your application, a personnel evaluation form will be sent to you. Complete this form and ask the student personnel office at the last school attended to return it to the MSU Dean of Students Office.

Applicants who have completed less than one year of college work must submit a high school record and ACT or SAT scores in addition to college transcripts. Concealment of previous college attendance may be cause for rejection or cancellation of admission.

## INTERNATIONAL APPLICANTS

The University is authorized under Federal law to enroll non-immigrant, alien students on "F-1" student visas. The established deadlines for applying are: May 1 for fall admission; September 15 for spring admission; or February 1 for summer admission. For additional information, contact the International Student Office.

## SPECIAL CATEGORY APPLICANTS

Designed for applicants who wish to take only a limited number of undergraduate courses and who are not presently seeking a degree at the University.

Unclassified (no previous college). Evidence of high school graduation from an approved high school is required for applicants not yet 18 years of age.
Unclassified (with previous college). Request a statement of academic standing from the Registrar at the last school attended.
Special Undergraduate (with college degree). Request a statement indicating the degree earned and date awarded from the Registrar at that college.
Audit only. Permission to audit courses must be obtained from the appropriate department chairman prior to submitting the application.

THE ADMISSIONS OFFICE is located in Suite 215 of the Administration Building. Office hours are 8:00 A.M. - 4:30 P.M. Monday through Friday. The telephone number for general admissions information is (901) 454-2101. After 4:30 P.M. and Saturday mornings call 454-2398.

PARAGRAPH 1 . INTENT. It is the intent that the public institutions of higher educetion in the State of Tennessee shall apply uniform rules, as described in these regulations and not otherwise, in determining whether students shall be classified "in-state" or "out-of-state" for fees and tuition purposes and for admission purposes.
PARAGRAPH 2. DEFINITIONS. Wherever used in these regulations:
(1) "Public higher educationel institution" shall mean a university or community college supported by appropriations mede by the Legislature of this State.
(2) "Residence" shall mean continuous physical presence end maintenance of a dwelling place within this State, provided that absence from the State for short periods of time shall not affect the establishment of a residence.
(3) "Domicile" shell meen a person's true, fixed, end permanent home end place of habitation; it is the place where he or she intends to remain.
(4) "Emencipated person" shall mean a person who has atteined the age of eighteen years, and whose parents have entirely surrendered the right to the care, custody. and earnings of such person and who no longer are under eny legal obligation to support or maintain such deemed "emancipated person".
(5) "Parent" shall mean e person's father or mother; or if one parent has custody of en unemancipeted person, the person having custody; or if there is guardien or legal custodien of an unemencipeted person, then such guardian or legal custodian; provided, that there are not circumstances indicating that such guerdienship or custodianship was created primarily for the purpose of conferring the status of an in-state student on such unemancipated person.
(6) "Continuous enrollment" shall meen enrollment at a public higher educational institution or institution of this State as efull-time student, as such term is defined by the governing body of said public higher educationel institution or institutions, for a normel academic yeer or years or the appropriate portion or portions thereof since the beginning of the period for which continuous enrollment is claimed. Such person need not enroll in summer sessions or other such inter-sessions beyond the normal acedemic year in order that his or her enrollment be deemed "continuous". Enrollment shall be deemed continous notwithstanding lapses in enrollment occasioned solely by the scheduling of the commencement and/or termination of the academic years, or appropriate portion thereof, of the public higher educational isntitutions in which such person enrolls.
PARAGRAPH 3. RULES FOR DETERMINATION OF STATUS.
(1) Every person heving his or her domicile in this State shall be classified "in-state" for fee and tuition purposes and for admission purposes.
(2) Every person not having his or her domicile in this State shall be clessified "out-of-state" for said purposes.
(3) The domicile of an of an unemancipated person is that of his or her parent.
(4) The domicile of a married person shall be determined independent of the domicile of the spouse.

PARAGRAPH 4. OUT-OF-STATE STUDENTS WHO ARE NOT REQUIRED TO PAY OUT-OF-STATE TUITION.
(1) An unemancipated, currenty enrolled student shall be reclassified out-of-state should his or her parent. having ther etofore been domiciled in the State, remove from the State. However, such student shall not be required to pay out-of-state tuition nor be treated as an out-of-state student for admission purposes so long as his or her enrollment at a public higher educational institution or institutions shall be continuous.
(2) An unemancipeted person whose parent is not domiciled in the State but is a member of the armed forces and stationed in this State or at Fort Cempbell pursuant to militery orders shall be classified out-of-state but shall not be required to pay out-of-state tuition. Such a person, while in continuous attendance toward the degree for which he or she is currently enrolled, shall not be required to pay out-of-state tuition if his or her parent thereafter is transferred on military orders.
(3) A person whose domicile is in a county of another state lying immediately adjacent to Montgomery County, or whose place of residence is within thirty (30) miles of Austin Peay State University shall be classified out-of-state but shall not be required to pay out-of-state tuition at Austin Peay State University. Provided, however, that there be no teacher college or normal school within the non-resident's own state, of equal distance to said non-resident's bona fide place of residence.
(4) Part-time students who are not domiciled in this State but who reside in this State, end are employed full-time in the State, or who are stationed at Fort Campbell pursuant to military orders, shall be classified out-of-state but shall not be required to pay out-of-state tuition. (Part-time students are those classified as such by the individual public higher educational institutions of this State)
(5) Military personnel end their spouses stationed in the State of Tennessee who would be classified out-of-state in accordance with other provisions of these regulations will be classified out-of-stete but shall not be required to pay out-of-state tuition. This provision shall not apply to military personnel and their spouses who are stationed in this State primerily for educational purposes.
PARAGRAPH 5. PRESUMPTION. Unless the contrery appeers from clear end convincing evidence. it shall be presumed that an emanicipated person does not ecquire domicile in that State while enrolled as a full-time student at any public or private higher educational institution in this State, as such status is defined by such institution. PARAGRAPH 6. EVIDENCE TO BE CONSIDERED FOR ESTABLISHMENT OF DOMICILE. If a person asserts that he or she has established domicile in this State he or she hes the burden of proving that he or she has done so. Such e person is entitled to provide to the public higher educational institution by which he or she seeks to be classified or reclassified in-state, any and all evidence which he or she believes will sustein his or her burden of proof. Said institution will consider any and all evidence provided to it concerning such cleim of domicile but will not treat any particular type or item of such evidence as conclusive evidence that domicile has or has not been established. PARAGRAPH 7. APPEAL. The classification officer of each public higher educational institution shall be responsible for initially classifying students "in-state" or "out-of-state". Appropriete procedures shall be established by each such institution by which a student may appeal his or her initial classification.
PARA GRAPH 8. EFFECTIVE DATE FOR RECLASSIFICATION. If a student classified out-of-stete applies for in-state classification and is subsequently soclessified, his or her in-state classification shall be effective as of the date on which reclassification was sought. However. out-of-state tuition will be charged for any quarter or semester during which reclessification is sought and obtained unless application for reclassification is made to the admissions officer on or before the last day of registration of thet quarter or semester.
PARAGRAPH 9. EFFECTIVE DATE. These regulations supersede ell regulations concerning clessification of persons for fees end tuition and admission purposes previously adopted by the State Board of Regents, and heving been approved by the Governor, beceme effective Mey 1, 1975.

## FOR INFORMATION, CONTACT THE OFFICE LISTED BELOW:

| ACADEMIC COUNSELING | Scates Hall, Room 107, (901) 454-2062 |
| :---: | :---: |
| FINANCIAL AID: | Scates Hall, Room 312, (901) 454-2303 |
| HOUSING | Jones Hall, Room 108, (901) 454-2295 |
| VETERAN AFFAIRS | Scates Hall, Room 212, (901) 454-2996 |
| READMISSIONS | tion Building Room 163, (901) 454-2674 |

Limited medical services are available in the University Heelth Center If you wish to take edvantage of these services, a health record is necessery. This form may be obteined in the Heelth Center.
MEMPHIS STATE UNIVERSITY OFFERS EQUAL EDUCATIONAL OPPORTUNITY TO ALL PERSONS WITHOUT REGARO TO RACE, RELIGION, SEX, CREED, COLOR, NATIONAL ORIGIN, OR HANDICAP


Citizen of U.S.? $\square$ Yes $\square$ No Sex:MaleFemale

If no, what country
SCREEN 2

Next of Kin: 1ParentGuardianSpouseOther

## Are you a veteran?

 $\square$ Yes $\square$ No Do you plan to attend MSU with Veteran's Assistance? $\square$ Yes $\square$ NoHave you been convicted of a crime other than a minor traffic violation? $\square$ Yes $\square$ No (If yes, attach statement) Are you employed full-time? $\square$ Yes $\square$ No If "Yes", give name, address, and telephone number of employer:
Dates of employment: From ___ To

The information below will be used to determine your eligibility to pay fees as a resident of Tennessee.
Are you now living in Tennessee? $\square$ Yes $\square$ No Do you live with your parents? $\square$ Yes $\square$ No Have you lived in Tennessee continuously since birth? $\square$ Yes $\square$ No
(If you answered "No" to the previous question, answer the questions below.)
When did you come or return to Tennessee?
What was the purpose of your coming or returning to Tennessee? $\qquad$

Do you consider yourself domiciled in Tennessee? (See definition on page 2) $\square$ Yes $\square$ No Do you intend to enroll as a full-time student? $\square$ Yes $\square$ No
If you are a veteran, when did you enter military service?
What was your home of record?
From what state did you enter military service?
When did you or will you leave active duty?

The questions below are to be completed only by those who are on active military duty or those who are dependents of military personnel on active duty.

If you are on active duty, where are you stationed? $\qquad$
Are you a dependent of a person on active military dut $\square$ Yes No
If "Yes", where is he or she stationed?
What state did you (or your sponsor) declare as home of record?
In some instances out-of-state students are not required to pay out-of-state tuition. If you have a question about your status, please review paragraph 4 of the Guidelines for the Classification of Students for Fee-Paying Purposes, or discuss your case with the Admissions Advisor for Residency.
Additional information may be required to make a determination as to the classification of a student for fee-paying purposes. In these cases additional information will be requested by the University.
I certify that none of the information on this form is false or has been withheld and that I understand that giving false information or withholding information may make me ineligible for admission or to continue my enroliment at Memphis State University. I further certify that I agree to all regulations concerning American History courses as set forth in the University Bulletin and the laws of the State of Tennessee.
Signature $\qquad$ Date

Do Not Write Below This Line

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Residency Action:
Determination: (1)__ Non-Res.___ Date:___
Restrictions:__
Pending Items:

## Admission Action:

Approved: $\qquad$ Date:

Not Approved: Date:

REMARKS:

NEEDS:


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DELANIE M. ROSS
MSU LIGRARIES
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[^0]:    Anthropological Research Center
    Center for Alluvial Valley Studies
    Center for Economic Education
    Center for Environmental and Energy Education
    Center for Health Services
    Office of International Studies
    Center for Life Cycle Studies/Aging
    Center for the Study of William Blake Ecological Research Center
    Edward J. Meeman Biological Field Station
    Neuropsychology and Evoked Potential Laboratory
    Oral History Research Office
    Public Sector Labor Relations Center Southern Music Archive
    Transportation Studies Institute
    Urban Studies Program

[^1]:    *Elective courses to be used based upon individual student needs.

[^2]:    -The College is not comprised of departments. Its programs are interdisciplinary and may make use of all departments in the University.

    - Tha student and an advisory committee design contract degrees. Group guidelines are available for the following concentrations: Black Studies, Women's Studies, Alcohol and Drug Abuse Sarvices, Human Services, Health Care Fields. Services for the Aging. Orthotics/Prosthetics and Related Fields, Commercial Aviation, Printing Managemant, Biomedical Illustration, Aviation Administration.

[^3]:    DAVID N. COX (1978), Associate Professor. Chairman: B. A. 1965, Ball State University: M.A., 1968, University of Oueenslend, Australia. Ph.D., 1977 , Indıana University ROBERT DENEMARK(1983), Instructor: B.A., 1978, Purdue University
    DENNIS W. GLEIBER (1983), Instructor: B.A., 1969, University of Missouri-St. Louis, M.A., 1979. University of Wisconsin-Milwaukee
    WALTER J. JONES (1980), Assistant Professor: B.A., 1974 Pennsylvania State University: M.A., 1975, Ph.D., 1980, University of Wisconsin-Madison

[^4]:    CHARLES H. ALLGOOD (1955), Professor: 8.FA., 1950, M.F.A., 1951, University of Georgia

    BONNIE R. BEAVER (1973), Associate Prodessor: 8.A., 1962, Memphis State University; M.F.A., 1967, University of Georgıa
    CAROL CROWN (1975). Associate Protessor. Chairman B.A., 1967, Unıversity of Kansas; Ph.D., 1975, Washington University

[^5]:    CHARLES WILSON BRAY (1969), Professor: B.S., 1960, M.S. 1961, Mississippi State Úniversity; Ph.D., 1969. University of Tennessee
    MALCOLM OONALD CALHOUN (1984), Professor: B.S.E.E., 1965, Purdue University; M.S., 196 B, Memphis State University; Ph.D., 1976. Mississippi State University
    ALI FAHS (1985), Assistant Professor: B.S.E.E., 1979: M.S., 1981; Ph.D., 1985, Wayne State University
    LENNOR LYNN GRESHAM (1984), Associate Professor: B.S.E.E., 1972, M.S., 1974, Memphis State University Ph.D., 1977, Mississippi State University

