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The provisions of this bulletin 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 bulletin, 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 requlrements for any program are subject to substitution at any time prior to completion by the student.
The remaining provisions of this bulletin reflect the general nature of and condtions concerning the educational services of Memphis State University at this time, 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 bulletin are subject to change at any
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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 quallfed for teaching at the college level. However, the acquisition of knowledge by any student is contingent upon the student's desire to learn and his 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 specific lonowledge 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-first session will open
August 26, 1982


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

MEMPHIS, TENNESSEE
JUNE, 1982
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.

Inquiries will receive attention if addressed to the administrative offices below Memphis State University, Memphis, Tennessee 3815

Admission Dean of Admissions and Records (454-2101)
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 Dean, Extended Programs
Financial and Business
Affairs Director of Finance
Graduate Studies Dean of Graduate Studies
Handicapped Student Services
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 Financial Aid
Transcripts Dean of Admissions and Records
Veterans' Services Coordinator of Veterans' Services

President of the University
Administration Building (901) 454-2234

Dean of Admissions and Records
Administration Building (901) 454-2101

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## 1982-83 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 1982

AUGUST 23-26 Off-campus registrations (exact dates, times, and locations to be announced prior to registration)

AUGUST 26: Meeting of the new members of the University faculty, University Center Ball room, 9:00 A.M.

AUGUST 27: Meeting of the entire University faculty, University Center Ballroom, 9:00 A.M., followed by meetings of colleges and departments
AUGUST 28: Registration: The Graduate School
AUGUST 30-SEPTEMBER 1: Registration Week: For detailed dates and times, see the Schedule of Classes for the Fall Semester, 1982

SEPTEMBER 2: Classes meet as scheduled
SEPTEMBER 6: Holiday: Labor Day

## SEPTEMBER 9:

Last day for adding courses
Last day for making application to the Dean of Graduate Studies for degree to be conferred in December, 1982. (File the "Intent to Graduate Card" and submit "Application for Master's Degree Candidacy" papers.)

SEPTEMBER 29: Last day for removing Summer Session "Incomplete" grades

## OCTOBER 22:

Last day for undergraduate students to withdraw from the University
Last day for all students to drop courses
NOVEMBER 9: Last day for graduate students to withdraw from the university

NOVEMBER 24: Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in May, 1983.

NOVEMBER 25-28: Holidays: Thanksgiving
DECEMBER 9: Study Day
DECEMBER 10: Final examinations begin
DECEMBER 18: Commencement

## SPRING SEMESTER 1983

JANUARY 4-7: Off-campus registrations (exact dates, times, and locations to be announced prior to registration)

## JANUARY 10: Registration: The Graduate School

JANUARY 10-12: Registration Week: For detailed dates and times, see the Schedule of Classes for the Spring Semester, 1983.

JANUARY 13: Classes meet as scheduled

## JANUARY 19:

Last day for adding courses
Last day for making application to the Dean of Grad uate Studies for degrees to be conferred in May 1983. (File the "Intent to Graduate Card" and submit "Application for Master's Degree Candi dacy" papers.)

FEBRUARY 1: Last day for removing Fall Semester "Incomplete" grades

## MARCH 4:

Last day for undergraduate students to withdraw from the University
Last day for all students to drop courses
MARCH 13-20: Spring Holidays
MARCH 29: Last day for graduate students to with draw from the University

APRIL 13: Last day for making application to the dean of the appropriate undergraduate college for degree to be conferred in August, 1983

APRIL 28: Study Day
APRIL 29: Final examinations begin
MAY 7: Commencement
FIRST SUMMER TERM 1983

MAY 31-JUNE 1: Registration - For detailed dates and times, see the Schedule of Classes for the Summer Session, 1983

JUNE 2: Classes meet as scheduled
JUNE 6:
Last day for adding First Term courses
Last day for making application to the Dean of Graduate Studies for degree to be conferred in August, 1983
JUNE 17:
Last day for undergraduate students to withdraw from the University (First Summer Term)
Last day for all students to drop courses (First Summer Term)

JUNE 21: Last day for removing Spring Semester "Incomplete" grades
JUNE 23: Last day for graduate students to withdraw from the University (First Summer Term)

JULY 4: Holiday: Independence Day
JULY 7: Final examinations

## SECOND SUMMER TERM 1983

JULY 11: Course adjustment day and registration for the Second Summer Term

JULY 12: Classes meet as scheduled

ULY 14: Last day to add or to register for Second erm courses

ULY 27:
ast day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in December, 1983
ast day for undergraduate students to withdraw from the University (Second Summer Term) ast day for all students to drop courses (Second Summer Term)

AUGUST 2: Last day for graduate students to withdraw from the University (Second Summer Term)

AUGUST 12: Final examinations
AUGUST 14: Commencement

EXTENDED SUMMER TERM 1983

MAY 31-JUNE 1: Registration: For detailed dates and times, see the Schedule of Classes for the Summer Session

JUNE 2: Classes meet as scheduled

JUNE 6: Last day for making application to the Dean of Graduate Studies for degrees to be conferred in August, 1983

JUNE 7: Last day for adding Extended Summer Term courses or registering for the Extended Summer

JUNE 21: Last day for removing Spring Semester "Incomplete" grades

JULY 4: Holiday: Independence Day
JULY 6:
Last day for undergraduate students to withdraw from the University (Extended Summer Term)
Last day for all students to drop courses (Extended Summer Term)

JULY 11-12: Mid-Term Break
JULY 20: Last day for graduate students to withdraw from the University (Extended Summer Term)

JULY 27: Last day for making application to the dean of the appropriate undergraduate college for degree o be conferred in December, 1983

AUGUST 11: Study Day
AUGUST 12: Final examinations
AUGUST 14: Commencement

Dead Week. Definition: The four day period preceding final examinations and including Study Day (Thursday). No student social or athletic functions shall be scheduled during Dead Week.

Study Day. Definition. The day prior to final examinations during regular semesters. No academic activities shall be scheduled on Study Day. No study or review sessions which the student may feel obligated to attend may be scheduled.

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.

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GENERAL DESCRIPTION

## Goals of the University

The primary purpose of Memphis State University is to advance learning. The University is dedicated first to the traditional ideals of learning by focusing its attention and efforts upon the creation, transmission, and application of knowledge. Secondly, 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 offers a diversity of learning opportunities for the pursuit of knowledge and truth in an atmosphere of free inquiry and open discussion. A community of learning, the University exists to nurture students in achieving intellectual competence, maturity, and self development.

Memphis State University recognizes its responsibility to meet the needs of a changing social and economic order. The University missions are primarily met through programs and activities of undergraduate education, graduate education, continuing education, and of research and public service. The undergraduate program offers a variety of experiences that are both liberal and specialized in character. Graduate education provides further opportunities in the professions, the arts, and the sciences. Continuing education serves the educational interests and needs of the community by promoting programs which complement the courses of study offered by degree granting colleges. Research and service activities - contributing to the vitality of sound instruction and learning - not only advance knowledge but also apply knowledge to the improvement of life and the environment. Each contributes to the basic purpose of the University - to promote learning.

Memphis State University is dedicated to these purposes:

1. Providing opportunities for its students to experience an education which is both liberal and specialized in character.
2. Preparing its students to serve in a variety of professions and occupations upon which society depends.
3. Developing graduates whose accomplishments attest to their intellectual discipline, curiosity, maturity, and professional competence.
4. Encouraging scholarly research and creative effort designed to advance the frontiers of knowledge and to enrich the cultural dimensions of society.
5. Providing 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.
6. Maintaining facilities and an atmosphere conducive to learning and the advancement of knowiedge.

## Historical Statement

In 1909, the General Assembly of Tennessee enacted a General Education law which provided for the establishment and maintenance of three normal schools, one school to be located in each of the three grand divisions of the state. Memphis and Shelby County contributed $\$ 350,000$ and a site of approximately 80 acres near the eastern edge of the city. On September 15, 1912, West Tennessee State Normal School opened.

In 1925, the institution became a senior college, and the name was changed to West Tennessee State Teachers College. In 1941, the school's liberal arts curriculum was enlarged, and the name was
changed to Memphis State College. The undergraduate program was reorganized into three schools in 1951, and a graduate school was added. On July 1, 1957, by action of the Tennessee legislature, the institution was designated Memphis State University.

## Governing Body

The governance, management and control of Memphis State University is vested in the State Board of Regents. The seventeen member board includes four ex officio members: the Governor, the Commissioner of Education, the Executive Director of the Tennessee Higher Education Commission, and the Commissioner of Agriculture. Thirteen public members are appointed by the Governor: One member is selected from each congressional district, four members are selected at large from different geographical areas of the state, and there is one student member.

The members during the 1981-82 year were as follow:

THE HONORABLE LAMAR ALEXANDER, Governor of Tennessee, ex officio
THE HONORABLE WILLIAM H. WALKER, III, Commissioner of Agriculture, ex officio
THE HONORABLE ROBERT L. McELRATH, Commissioner of Education, ex officio
THE HONORABLE G. WAYNE BROWN, Executive Director, Tennessee Higher Education Commission, ex officio
THE HONORABLE GWEN W. AWSUMB, Memphis
THE HONORABLE JAMES H. JONES, JR., Mount Pleasant
THE HONORABLE C. C. BOND, Chattanooga
THE HONORABLE RUTH ELLIS, Johnson City
THE HONORABLE J. C. EOFF, JR., Tullahoma
THE HONORABLE KENNETH EZELL, Murfreesboro
THE HONORABLE WILLIAM W. FARRIS, Memphis
THE HONORABLE DALE GLOVER, Obion
THE HONORABLE JOHNELLA H. MARTIN, Nashville
THE HONORABLE C. SCOTT MAYFIELD, Athens
THE HONORABLE J. HOWARD WARF, Statutory, Hohenwald
THE HONORABLE DAVID WHITE, Vice Chairman, Knoxville

Memphis State University is the largest of the institutions of higher education under the direction of the Board of Regents. The other institutions with baccalaureate and graduate programs are Austin Peay State University at Clarksville; East Tennessee State University at Johnson City; Middle Tennessee State University at Murfreesboro; Tennessee

State University at Nashville; and Tennessee Technological University at Cookeville.

## Organization

Memphis State University is comprised of four main divisions: Academic Affairs, Business and Finance, Continuing Education and Special Programs, and Student Educational Services. The schools and colleges which comprise the University
are The Graduate School, The Cecil C. Humphreys School of Law, and sixundergraduate colleges: Arts and Sciences, Fogelman College of Business and Economics, Communication and Fine Arts, Education, Herff College of Engineering, and University College. In addition, there are eight independent programs: Audiology and Speech Pathology, City and Regional Planning, Aerospace Studies, International Studies, Library Science, Military Science, Nursing, and

Urban Studies. The schools colleges, and independent programs are described in more detail elsewhere in the Bulletin.

## Academic Programs

The degrees, majors, concentrations, and teaching endorsements offered by the University are listed in the chart below and under the description of The Graduate School.

Undergraduate Academic Programs
THE COLLEGE OF ARTS AND SCIENCES

| Department |  |  |  |
| :--- | :--- | :--- | :--- |
| Anthropology | Major | Doncentration Within Major | Degree Offered |

* A concentration in Russian requires a collateral forelgn language concentration or a collateral major outside the Department of Foreign Languages.
 Business.

Undergraduate Academic Programs

| THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentration Within Major | Degree Offered (B.B.A.) |
| Accountancy | Accounting |  | Bachelor of Business Administration |
| Economics | Business Economics |  | Bachelor of Busıness Administration |
| Finance. Insurance and Real Estate | Finance |  | Bachelor of Business Administration |
|  | Insurance |  | Bachelor of Business Administration |
|  | Real Estate |  | Bachelor of Business Administration |
| Management | Management | (1) General Management <br> (2) Production Management <br> (3) Personnel Administration and Industrial Relations <br> (4) Quantitative Methods and Business Systems | Bachelor of Business Administration |
| Marketing | Marketing | (1) Advertising (Marketing Communications) <br> (2) General Marketing <br> (3) Retailing <br> (4) Sales <br> (5) Transportation and Logistics <br> (6) Agrimarketing | Bachelor of Business Administration |
| Office Administration | Office Administration | (1) Secretarial <br> (2) Office Management <br> (3) Legal Office Management | Bachelor of Business Administration |
|  | Legal Assistant |  | Certificate |
| Interdisciplinary Program | International Business |  | Bachelor of Business Administration |
|  | $\dagger$ Foreign Languages |  |  |
|  | Entrepreneurship |  | Certificate |

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

| THE COLLEGE OF COMMUNICATION AND FINE ARTS |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentration Within Major | Degree Offered |
| 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 (Magazine) (Newspaper) (Photo Journalism) <br> (4) Public Relations | Bachelor of Arts (B.A.) |
| Music | Music | (1) Brass Instruments <br> (2) Church Music (Choral) (Organ) <br> (3) Composition <br> (4) Music History <br> (5) Music Theory <br> (6) Organ <br> (7) Percussion <br> (8) Piano and/or Harpsichord (Chamber Music) (Pedagogy) (Performance) <br> (9) Strings <br> (10) Voice/Opera (Voice) (Opera) <br> (11) Woodwinds | 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) General Speech and Theatre <br> (2) Broadcasting <br> (3) Communication <br> (4) Film and Videotape Production <br> (5) Theatre | Bachelor of Arts (B.A.) |
|  | Theatre | (1) Performance <br> (2) Production <br> (3) Dance | Bachelor of Fine Arts (B.F.A.) |

Undergraduate Academic Programs
THE COLLEGE OF EDUCATION

| Department | THE COLLEGE OF EDUCATION |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Major (Concentration) | **ENDORSEMENTS |  | Degree Offered |
|  |  | Major Endorsement | Minor Endorsement |  |
| Curriculum and Instruction | Elementary Education | Elementary Education | Kindergarten | Bachelor of Science in Education (B.S.Ed.) |
|  | Early Childhood Education (K-3) |  |  |  |
|  | Secondary Education | Art Education <br> Business Education <br> Distributive Education <br> English <br> Foreign Languages <br> French <br> German <br> Latin <br> Russian <br> Spanish <br> Health Education <br> Elementary Physical Education <br> Secondary Physical Education <br> Industrial Arts Education <br> Mathematics <br> Math \& Phys. Science <br> Music Education Instrumental Music School Music <br> Science Biology Chemistry <br> Earth \& Space Sciences <br> General Science Physics <br> Social Studies <br> Economics <br> Geography <br> Government <br> History <br> Sociology <br> Special Education <br> Speech and Drama <br> Vocational Home <br> Economics | ```Business Education Secretarial Practice Bookkeeping General Business Typewriting Economics, Consumer Education, General Business, Business Law Distributive Education Driver Education English Foreign Languages French German Latin Russian Spanish Health Education Elementary Physical Education Secondary Physical Education Industrial Arts Education Librarian Mathematics Psychology Science Biology Chemistry Earth \& Space Sciences General Sciences Physics Social Studies Economics Geography Government History Sociology Special Education Speech and Drama``` |  |
| Health, Physical Education and Recreation | Health Education Physical Education (Elementary) (Secondary) | Health Education Elementary Physical Education <br> Secondary Physical Education | Health Education Elementary Physical Education Secondary Physical Education | Bachelor of Science in Education (B.S.Ed.) |
|  | *Recreation and Park Administration |  |  |  |
| Home Economics and Distributive Education | *Home Economics <br> (Food Administration) <br> (Dietetics) <br> (Merchandising-Fashion) <br> (Merchandising-Home <br> Furnishings) <br> Vocational Home Economics <br> (Occupational Child Care Services) <br> (Occupational Clothing Services) <br> (Occupational Food Services) <br> Distributive Education | Vocational Home Economics <br> Distributive Education |  | ```Bachelor of Science in Home Economics (B.S.H.E.) Bachelor of Science in Education (B.S.Ed.) Bachelor of Science in Education (B.S.Ed.)``` |
| Music (College of Communication and Fine Arts) | ```Music Education (Instrumental Music) (School Music)``` | Music Education Instrumental Music School Music |  | Bachelor of Music Education (B.M.Ed.) |
| Special Education and Rehabilitation | Special Education <br> "Rehabilitation <br> Education (General) OR <br> (Rehabilitation of the Public Offender) <br> (Vocational Evaluation) | Special Education | Special Education | Bachelor of Science in Education (B.S.Ed.) |

*Not approved as a valid certification area in Tennessee

* The endorsements are listed only with the departments in which they are offered, but they may accompany any major.


## Undergraduate Academic Programs

| THE HERFF COLLEGE OF ENGINEERING |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentratlon 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) Solid State Electronics <br> (2) Energy Conversion <br> (3) Control Systems <br> (4) Computer Science <br> (5) Microwave and Antenna Systems | Bachelor of Science in Electrical Engineering (B.S.E.E.) |
| Geology | Geology |  | Bachelor of Science in Geology (B.S.G.) |
| Mechanical Engineering | Mechanical Engineering* | (1) Design and Manufacturing <br> (2) Energy Systems <br> (3) Mechanical Systems | Bachelor of Science in Mechanical Engineering (B.S.M.E.) |
| Engineering Technology | Architectural Technology* |  | Bachelor of Science in Engineering Technology (B.S.E.T.) |
|  | Computer Systems Technology ${ }^{\text {- }}$ |  | $\begin{aligned} & \text { Bachelor of Science in } \\ & \text { Engineering Technology (B.S.E.T.) } \\ & \hline \end{aligned}$ |
|  | Construction Technology* |  | Bachelor of Science in Engineering Technology (B.S.E.T.) |
|  | Electronics Technology* |  | $\begin{aligned} & \text { Bachelor of Science in } \\ & \text { Engineering Technology (B.S.E.T.) } \end{aligned}$ |
|  | Manufacturing Technology* |  | Bachelor of Science in Engineering Technology (B.S.E.T.) |
|  | Trade and Industrial VocationalTechnical Education | (1) General <br> (2) Industrial Arts | Bachelor of Science in Technology (B.S.T.) |

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

| THE UNIVERSITY COLLEGE |  |  |  |
| :--- | :--- | :--- | :--- |
| Department | Major | Concentratlon Within Major | Degree Offered |
| $*$ | Individual Studies | $* *$ | Bachelor of Liberal Studies (B.L.S.) <br> Bachelor of Professional Studies (B.P.S.) |

*The College is not comprised of departments. Its programs are interdisciplinary and may make use of all departments in the University.
**The student and an advisory committee design contract degrees.

| INDEPENDENT PROGRAMS |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentration Within Major | Degree Offered |
| Nursing | Nursing |  | Bachelor of Science in Nursing (B.S.N.) |
| Urban Studies | †Urban Studies |  | Bachelor of Arts (B.A.) |
| **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.
†Collateral Major recommended.


## Accreditation and Institutional Membership

The University is fully accredited by the Southern Association of Colleges and Schools and is a member of the Tennessee College Association, the American Association of Colleges for Teacher Education, and the National Collegiate Athletic Association. The various colleges, schools and departments and/or the curricula are accredited by, or are members of, the following:

American Assembly of Collegiate Schools of Business
American Association of State Colleges and Universities
American Association of University Women
American Bar Association
American Chemical Society
American College and University Concert Managers
American Council on Education for Journalism
American Dietetics Association
American Psychological Association
American Speech and Hearing Association
Association of American Law Schools
Association of University Evening Colleges
Board of Law Examiners of Tennessee
Council on Rehabilitation Education
Council on Social Work Education

National Association of Schools of Art National Association of Schools of Music
National Association of Summer Sessions
National Commission on Accrediting
National Council for Accreditation of Teacher Education
National League for Nursing
National Opera Association
Oak Ridge Associated Universities
Southern Universities Student Government Association
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology
Tennessee Board of Nursing
Tennessee Education Association

## FACILITIES AND SERVICES

The facilities and services described below are some of the many available to University students and faculty. Some of the other facilities and services are described in the particular college and department sections of the Bulletin

# Evening Academic Services 

R. WILSON WALKER, Dean

Administration Building, Room 167
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 academic advising; career, vocational, personal, and change of major counseling; registration assistance; transcript request and evaluations; course drop, add and withdrawals; financial aid, health service and other referrals; admissions and readmissions counseling; orientation information; traffic and parking fees, decals and tickets; Notary Public services.

## Library Facilities

LESTER J. POURCIAU, JR., Director Brister Library, Room 101A

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 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 $1,750,000$ 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 for a maximum assignment of one year to faculty members and graduate students engaged in research.

Memphis State University has agreements with Southwestern at Memphis, the University of Tennessee Medical Units, and with Christian Brothers College for a shared use of 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 academic computing system is a Sperry-Univac 1100/62 which has over eight million characters of main storage and which supports both time-sharing and remote batch job entry. Remote batch job entry stations are located in the Herff College of Engineer-
ing, the Fogelman College of Business and Economics, the Administration Building, and Winfield Dunn Building (Mathematics and Foreign Languages Building).

## Center for Instructional Services and Research <br> RAOUL A. ARREOLA, Director Brister Library, Room 202

The primary mission of the Center for Instructional Services and Research is to provide a series of. instructional support, development, and evaluation services to the University community. The services are provided by four primary divisions of the Center.
Instructional Design and Development Division provides a variety of services and programs which include consultation in designing instructional material and methodologies using educational technology. Faculty efforts in instructional improvement are also supported by the Instructional Improvement Awards Program which provides grants to faculty who wish to pursue well conceived instructional development projects. In addition, this division operates the Laboratory for Individualized Learning and Instruction, which is a service facility that enables faculty to place self-instructional modules in a central location where students may engage in individualized learning and instruction.

Evaluation Services Division operates the student rating of the instructional program, offers consultation services to faculty on techniques and procedures for evaluating student achievement, and provides a professional level test-scoring and analysis service.

Learning Media Center has a full array of media services including film previewing, graphic production, and video tape duplication. The LMC also operates the University's film and audio-visual equipment library. Graphic design and production services are provided through the production of slides, transparencies, and other graphic material required for instructional purposes.

Instructional Television Division operates a full range of professional television production services for use in classroom instruction. This division provides access to a modern television studio for use in the production of instructional videotapes for classroom use.

## University Advancement and Public Service <br> VAN N. OLIPHANT <br> Executive Assistant to the President

The Office of University Advancement and Public Service has overall responsibility for the coordination and development of University outreach activities. This office assists with the quarterly publications of Memphis State Magazine for friends and contributors to the University and The Columns, a newspaper for University alumni. Other outreach activities are directed through:

> Alumni
> The Memphis State University Alumni Center is located on campus at the corner of Normal and Spottswood. The staff serves the Memphis State University National Alumni Association providing 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. The Alumni Office may be contacted by phone at (901) 454-2701.

## Development

The Office of Development, located in the Administration Building, serves as the catalyst and coordinator for private financial support of Memphis State University's academic and athletic programs. With approximately fifty 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 private and corporate segments of the community in securing annual and endowed gifts which are used to enrich the academic and athletic programs as well as initiate new programs. The Development Office may be reached by phone at (901) 454-2155.

## Public Service

In recognition of the University's responsibility to serve the needs of a changing social and economic order, the Public Service Office serves as a prime contact for individuals and organizations outside the University. Through this Office, located in the Administration Building, access may be gained to University facilities and resources. Inquiries and requests should be directed to the staff at (901) 454-2584.

## Memphis State University Press

J. RALPH RANDOLPH, Director Administration Annex, Room 340

In 1968, Memphis State University Press was established as a book publishing department of Memphis State University. Its editorial policies are controlled by a committee composed of the Press's director and faculty members and administrators appointed by the President. The editorial policy of the Press is to promote the development and publication of scholarly books and books 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.

## Continuing Education and Special Programs

JOHN A. RHODES, Ph.D., Vice President Administration Building, Room 360

## Instructional Services

The Office of Continuing Education and Special Programs offers services enrich-
ing and extending the traditional full-time program. Each of these services is designed to increase the availability of the faculty and the facilities of the University as well as CEU (Continuing Education Unit) and non-credit activities, to metropolitan Memphis and the Mid-South region.

## Conference Services

The Division of Conferences and Seminars provides CEU and non-credit programs in various occupational, technical, and general education fields. It assists state agencies, educational institutions, recognized civic organizations, professional groups, and departments of the University in the development and presentation of conferences to provide a wide variety of educational opportunities for adults. Staff members assist in planning programs, preparing and distributing printed materials, and conducting conferences, seminars and workshops. Professional, business and cultural groups who wish to avail themselves of the services of the teaching staff and the facilities of the University, either on or off the main campus, are welcome to schedule instructional meetings through the Division of Conferences and Seminars (454-2021).

## Special Interest, Non-Credit Short Courses

These classes are for persons who have a particular interest in a subject but who do not wish to engage in the formalitites of admission, grades and examinations. The courses offered embrace a variety of topics focusing on personal enrichment and professional development. A catalog of non-credit courses to be offered is printed prior to the beginning of each semester and may be obtained by contacting the Division of Short Course Instruction (454-2700).

## Center for Nuclear Studies

The Center for Nuclear Studies conducts development programs in the fields of education and research for nuclear and other energy related fields. This center was designated as the nation's first regional center for nuclear manpower development by the Southern Interstate Nuclear Board. In the field of education, the Center develops programs directed toward matching University education to the needs of industry and government. Training programs in industrial specialties are offered both on campus and at industrial plant sites throughout the nation. In the field of research, the Center works with University faculty, administration, and other members of the community in developing new research projects related to industrial needs and in providing equipment necessary for the efficient pursuit of these projects. The equipment available through the Center for University research includes a nuclear reactor and specialized analysis equip-
ment. Educational programs in the Center for Nuclear Studies are administered through the Office of Continuing Education and Special Programs.

## Continuing Education Unit

The awarding of Conintuing Education Units (CEUs) is part of a national movement to provide records for participation in non-credit continuing education activities. Many organizations and professions are requiring adults to continue their education. The use of CEU is an effort to provide a standard unit of measurement by which these organizations and professions may grant the proper recognition to their constituents for having participated in continuing education programs. CEUs do not constitute academic credit earned at Memphis State University.

Participants in certain approved programs sponsored by the Office of Continuing Education and Special Programs are awarded Continuing Education Units. One unit is awarded for each ten hours of instruction, with decimal units given for fewer than ten hours. These units are recorded on a permanent transcript of CEUs earned by submitting a request to the University Records Office. Copies will be forwarded to designated groups, associations or emloyers when requested by the participant.

## International Training Program

The International Training Program, administered by the Office of Continuing Education and Special Programs, is responsible for developing 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 the 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 session each summer.

Students coming to Memphis State University for the specific purpose of studying English through the Intensive English program and who are issued an 1-20 by the University must enroll in the full-time course. Classes designed to meet special needs can also be arranged outside of regularly scheduled classes. Registration and credit in the form of Continuing Education Units (CEUs) are processed through Continuing Education, and students successfully completing the course of study receive a certificate of attendance.

For more information about Intensive Englih for Internationals or other training programs, contact the International Training Program at 454-2813.

## The Graduate School

EDMUND P. SEGNER, JR., B.S.C.E., M.S.C.E., Ph.D.

Associate Vice President for Research
ALICIA C. TILLEY, B.S., M.Ed., Ed.D.,
Dean for Graduate Studies Administration Building, Room 315

## Purpose

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 (a) to preserve and disseminate knowledge; (b) to extend knowledge through research; and (c) to prepare men and women to assume a more responsible and useful role in a changing society.

## Admission

The Graduate School is open to persons holding the bachelor's degree from colleges and universities recognized by standard, general and regional accrediting agencies, and whose undergraduate work has been of sufficient quality and scope to enable them to pursue graduate study profitably. Satisfactory entrance examination scores are required for all students who seek to be admitted to graduate study. A prospective student should contact The Graduate School Office to ascertain admission requirements and the appropriate examination to be taken.

The regulations and policies of The Graduate School are explained in greater detail in The Graduate School Bulletin. Application for admission must be made on the admission application form supplied by The Graduate School. Inquiries concerning The Graduate School should be addressed to the Dean of Graduate Studies.

## Programs

A student may study in thirty-nine departments with various majors and areas of specialization. The master's degree is offered by each of the thirtynine departments. The Doctor of Philosophy degree is offered through the departments of audiology and speech pathology, biology, chemistry, history, mathematical sciences, and psychology. The Doctor of Musical Arts is offered through the Department of Music. The Doctor of Education and Education Specialist degrees are offered through various departments within the College of Education. The Doctor of Business Administration degree is offered through the Fogelman College of Business and Economics.

## The Cecil C. Humphreys School of Law

NICHOLAS L. WHITE, J.D., Dean Room 209, Law School Building

## 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 and attend classes in the evening. A student in the full-time program may graduate in three academic years. A student in the part-time program may graduate in four academic years plus work in summer sessions. A student regu-
larly 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 on a 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 Admission Test administered by the Law School Admission Serv-
ices, Box 2000, Newtown, PA 18940. Questions concerning additional admissions requirements should be directed to the Director of Law Admissions and Student Recruitment.
Admission to advance standing may be given to a student who qualifies for admission and who is eligible for reenrollment in the law school in which his previous work has been taken, provided that such school is accredited by the American Bar Association.
The regulations and policies of The School of Law are set out in greater detail in a separate bulletin. Applications for admission must be made on forms supplied by The School of Law. Inquiries should be addressed to the Director of Law Admissions and Student Recruitment, Room 201, Law Building.

## GRADUATE ACADEMIC PROGRAMS

| Department | Major | Concentrations | Degree Offered |
| :---: | :---: | :---: | :---: |
| Accountancy | Accounting |  | Master of Science (M.S.) <br> Master of Professional Accountancy (M.P.Acc.) |
|  | Business Administration | Accountancy | Master of Business Administration (M.B.A.) Doctor of Business Administratıon (D.B.A.) |
| Anthropology | Anthropology | (1) Urban Anthoropology <br> (2) Medical Anthropology <br> (3) Archaeology | Master of Arts (M.A.) |
| Art | Studio Art | (1) Painting <br> (2) Sculpture <br> (3) Printmaking <br> (4) Graphic Design <br> (5) Interior Design <br> (6) Ceramics | Master of Fine Arts (M.F.A.) |
|  | Art | (1) Art History | Master of Arts (M.A.) |
|  |  | (2) Art Education | Master of Arts in Teaching (M.A.T.) |
| Audiology and Speech Pathology | Audiology and Speech Pathology | (1) Audiology <br> (2) Speech Pathology | $\begin{aligned} & \text { Master of Arts (M.A.) } \\ & \text { Doctor of Philosophy (Ph.D.) } \\ & \hline \end{aligned}$ |
| Biology | Biology | (1) Immunohematology | Master of Science (M.S.) |
|  |  | (2) Botany <br> (3) Cell Biology <br> (4) Invertebrate Zoology <br> (5) Microbiology <br> (6) Vertebrate Zoology | Master of Science (M.S.) Doctor of Philosophy (Ph.D.) |
| Business and Economics (Interdepartmental) | Business Administration | (1) Accountancy <br> (2) Finance, Insurance, Real Estate <br> (3) Law <br> (4) Management <br> (5) Management Science <br> (6) Economics <br> (7) Marketing <br> (8) Executive | Master of Business Administration (M.B.A.) |
|  |  | (1) Accountancy <br> (2) Applied Economics <br> (3) Finance <br> (4) Management <br> (5) Management Science <br> (6) Marketing | Doctor of Business Administration (D.B.A.) |
| Chemistry | Chemistry | (1) Inorganic <br> (2) Analytical Chemistry <br> (3) Organic <br> (4) Physical Chemistry <br> (5) Biochemistry | Master of Science (M.S.) Doctor of Philosophy (Ph.D.) |
| Civil Engineering | Civil Engineering | (1) Environmental Engineering <br> (2) Foundation Engineering <br> (3) Structural Engineering <br> (4) Transportation Engineering | Master of Science (M.S.) |


| GRADUATE ACADEMIC PROGRAMS |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentrations | Degree Offered |
| Counseling and Personnel Services | Counseling and Personnel Services | (1) Elementary School <br> Counseling and Guidance <br> (2) Secondary School Counseling and Guidance <br> (3) General Counseling and Guidance <br> (4) Community Agency Counseling <br> (5) Student Personnel Services <br> (6) Corrections Counseling | Master of Education (M.Ed.) <br> Master of Science (M.S.) |
|  | Personnel Services | (1) Counseling and Guidance | Education Specialist (Ed.S.) |
|  |  | (2) Counseling <br> (3) Higher Education | Doctor of Education (Ed.D.) |
| Crimınal Justice | Criminal Justice |  | Master of Arts (M.A.) |
| Economics | Economics |  | Master of Arts (M.A.) |
|  | Business Administration | Economics | Master of Business Administration (M.B.A.) |
|  |  | Applied Economics | Doctor of Business Administration (D.B.A) |
| Education(Interdepartmental) | Curriculum and Instruction | (1) Adult Education <br> (2) Higher Education | Master of Science (M.S.) |
|  |  | (3) Curriculum | Master of Education (M.Ed.) |
|  |  | (4) Business Education | Master of Arts in Teaching (M.A.T.) |
|  |  | (5) Instructional Design and Technology <br> (6) Reading | $\begin{aligned} & \text { Master of Science (M.S.) } \\ & \text { Master of Education (M.Ed.) } \end{aligned}$ |
|  |  | (7) Elementary Education <br> (8) English/Language Arts Education <br> (9) Foreign Language Education <br> (10) Mathematics Education <br> (11) Secondary Education <br> (12) Science Education <br> (13) Social Studies Education | Master of Education (M.Ed.) Master of Arts in Teaching (M.A.T.) |
|  |  | (14) Early Childhood Education <br> (1) Music Education | (M.S.) (M.Ed.) (M.A.T.) <br> Evucalion Specialist(Ed.S.) |
|  |  | (2) Adult Education <br> (3) Business Education <br> (4) Curriculum <br> (5) Early Childhood Education <br> (6) Elementary Education <br> (7) English/Language Arts Education <br> (8) Foreign Language Education <br> (9) Higher Education <br> (10) Instructional Design and Technology <br> (11) Mathematics Education <br> (12) Reading <br> (13) Science Education <br> (14) Secondary Education <br> (15) Social Studies Education | Education Specialist (Ed.S.) Doctor of Education (Ed.D.) |
| Educational Administration and Supervision | Educational Administration and Supervision | (1) General | Master of Science (M.S.) |
|  |  | (2) Elementary <br> (3) Secondary | Master of Education (M.Ed.) |
|  |  | (1) Superintendency <br> (2) Elementary <br> (3) Secondary | Education Specialist (Ed.S.) |
|  |  | (4) Higher Education | Education Specialist (Ed.S.) Doctor of Education (Ed.D.) |
|  |  | (1) General <br> (2) Adult, Continuing and Community Education | Doctor of Education (Ed.D.) |
| Electrical Engineering | Electrical Engineering | (1) Solid State Electronics <br> (2) Automatic Control Systems <br> (3) Engineering Computer Systems <br> (4) Microwave and Antenna Systems | Master of Science (M.S.) |
| Engineering Technology | Technical Education | (1) Architectural <br> (2) Construction <br> (3) Electronics <br> (4) Manufacturing <br> (5) Industrial Arts <br> (6) Trade and Industrial-Vocational Technical Education | Master of Science (M.S.) |
| English | English |  | Master of Arts (M.A.) |
| Finance, Insurance, and Real Estate | Finance |  | Master of Science (M.S.) |
|  | Business Administration | Finance, Insurance, Real Estate | Master of Business Administration (M.B.A.) |
|  |  | Finance | Doctor of Business Administration (D.B.A.) |


| GRADUATE ACADEMIC PROGRAMS |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentrations | Degree Offered |
| Foreign Languages | Romance Languages | (1) French <br> (2) Spanish | Master of Arts (M.A.) |
| Foundations of Education | Foundations of Education | (1) Cultural Foundations <br> (2) Educational Psychology <br> (3) Research Methodology and Statistics | Master of Science (M.S.) |
|  |  | (1) Cultural Foundations <br> (2) School Psychology <br> (3) Research Methodology and Statistics | $\begin{aligned} & \text { Education } \\ & \text { Specialist (Ed.S.) } \end{aligned}$ |
|  |  | (1) Cultural Foundations <br> (2) Educational Psychology <br> (3) Research Methodology and Statistics <br> (4) Higher Education | Doctor of Education (Ed.D.) |
| Geography | Geography |  | Master of Arts (M.A.) Master of Science (M.S.) |
| Geology | Geology |  | Master of Science (M.S.) |
| $\begin{aligned} & \text { Health, Physical } \\ & \text { Education and Recreation } \end{aligned}$ | $\begin{aligned} & \text { Health, Physical } \\ & \text { Education and Recreation } \end{aligned}$ | (1) School Health <br> (2) Physical Education | Master of Education (M.Ed.) |
|  |  | (3) Community Health <br> (4) Recreation | Master of Science (M.S.) |
| History | History |  | $\begin{aligned} & \text { Master of Arts (M.A.) } \\ & \text { Doctor of Philosophy (Ph.D.) } \end{aligned}$ |
| Home Economics and Distributive Education | Home Economics | (1) Home Economics Education <br> (2) Fashion Merchandising <br> (3) Housing and Home Furnishings <br> (4) Nutrition | Master of Science (M.S.) |
|  | Distributive Education |  | Master of Education (M,Ed.) |
| Interdepartmental Programs | Natural Science |  | Master of Science (M.S.) |
|  | Mathematical Sciences |  | Master of Science (M.S.) |
|  | Industrial Systems Analysis |  | Master of Science (M.S.) |
|  | Individual Studies | (by contract) | Master of Arts (M.A.) Master of Science (M.S.) |
| Library Science | Library Service |  | Master of Science (M.S.) |
| Management | Management |  | Master of Science (M.S.) |
|  | Business Administration | (1) Management <br> (2) Management Science | Master of Business Administration (M.B.A.) Doctor of Business Administration (D.B.A.) |
| Marketing | Marketing |  | Master of Science (M.S.) |
|  | Business Administration | Marketing | Master of Business Administration (M.B.A) Doctor of Business Administration (D.B.A.) |
| Mathematical Sciences | Mathematics | (1) General Mathematics <br> (2) Statistics <br> (3) Computer Sciences | Master of Science (M.S.) |
|  |  | (1) College Teaching <br> (2) Applied Statistics | Doctor of Philosophy (Ph.D.) |
| Mechanical Engıneering | Mechanical Engineering | (1) Design and Manufacturing <br> (2) Energy Systems <br> (3) Fluid Power Systems <br> (4) Mechanical Systems | Master of Science (M.S.) |
| Music | Music | (1) Applied Music <br> (a) Composition <br> (b) Piano <br> (c) Vocal Pedagogy <br> (d) Vocal Performance <br> (e) Organ <br> (f) Strings Pedagogy <br> (g) Strings Performance <br> (h) Brasses <br> (i) Woodwinds <br> (j) Percussion <br> (k) Harpsichord <br> (I) Opera Production and Directing <br> (2) Sacred Music <br> (3) Music Theory <br> (4) Music History <br> (5) Orft-Schulwerk <br> (6) Suzuki Pedagogy (Piano) | Master of Music (M.Mu.) |
|  |  | (7) Musical Arts: Ethnic Music (South Central Region) | Master of Arts (M.A.) |
|  | Musical Arts | (1) Composition <br> (2) Musicology: Regional Studies <br> (3) Music Education <br> (4) Performance <br> (5) Sacred Music | Doctor of Musical Arts (D.M.A.) |
| Office Administration | Business Education and Office Management | Business Education | Master of Education (M.Ed.) Master of Science (M.S.) |
| Philosophy | Philosophy |  | Master of Arts (M.A.) |
| Physics | Physics |  | Master of Science (M.S.) |


| Department | GRADUATE ACADEMIC PROGRAMS |  |  |
| :---: | :---: | :---: | :---: |
|  | Major | Concentrations | Degree Offered |
| Planning | City and Regional Planning | (1) Developmental Planning <br> (2) Urban Revitalization Planning <br> (3) Natural and Environmental Resources Planning | Master of City and Regional Planning (M.C.R.P.) |
| Political Science | Political Science |  | Master of Arts (M.A.) |
|  | Public Administration | (1) Urban Management and Planning <br> (2) Comparative and Development Administration <br> (3) General <br> (4) Health Services Administration <br> (5) Public Policy Analysis / Program Evaluation <br> (6) Criminal Justice Administration | Master in Public Administration (M.P.A.) |
| Psychology | Psychology | (1) General Psychology | Master of Science (M.S.) |
|  | School Psychology |  | Master of Arts (M.A.) |
|  | Psychology | (1) Clinical Psychology <br> (a) Neuropsychology <br> (b) Child Clinical <br> (2) Experimental Psychology <br> (a) Biopsychology <br> (b) Learning Behavior Analysis <br> (c) Sensory Processes <br> (d) Neuropsychology <br> (e) Behavior Management <br> (f) Human Developmental Retardation <br> (g) Industrial Psychology <br> (h) Personality-Cognitive Processes <br> (i) Social Psychology | Doctor of Philosophy (Ph.D.) |
| Sociology and Social Work | Sociology |  | Master of Arts (M.A.) |
| Special Education and Rehabilitation | Special Education and Rehabilitation | (1) Educationally Handicapping Conditions <br> (2) Pre-School Education of Exceptional Children <br> (3) Multihandicapped | Master of Education (M.Ed.) |
|  |  | (4) General <br> (5) Rehabilitation Counseling | Master of Science (M.S.) |
|  |  |  | Education Specialist (Ed.S.) Doctor of Education (Ed.D.) |
| Theatre and Communication Arts | Communication | (1) Radio-TV-Film <br> (2) Rhetoric and Communication Arts <br> (3) Theatre | Master of Arts (M.A.) |
|  | Theatre |  | Master of Fine Arts (M.F.A.) |



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## 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 of the regular semesters or at the beginning of any term of the summer session.
An application for admission is in the back of this Bulletin. The established deadlines for submitting regular undergraduate 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 will be considered only for one of the special categories listed later in this section. All applications must be accompanied by a five-dollar (\$5.00) non-refundable appli-
cation fee. This fee is payable one time only regardless of the level for which the student is applying.

Certain instructional programs of the University are subject to special admission requirements. These programs necessitate special admission requirements and are subject to change due 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 certification, nursing, University College, and Nuclear Studies.

The applicant is advised to have all credentials on file well in advance (preferably thirty days) of the registration period for the term for which 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.

## ADMISSION AS REGULAR UNDERGRADUATES

## Freshmen Applicants

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

## 1. High School Graduation

A. By a transcript of credits showing graduation from an approved or an accredited high school. Graduates of an unapproved or a non-accredited high school must take the General Educational Development test and earn an aver age standard score of at least 45. This GED requirement is waived for students who earn the minimum ACT 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.
B. By General Educational Development Test Applicants 18 years of age or older who are not high school graduates may satisfy the graduation requirement by submitting G.E.D. scores averaging 45 or more. Testing may be arranged by contacting the local Board of Education.

## 2. Entrance Examination

Applicants must submit acceptable scores earned on the test administered by the American College Testing Program. These scores may be furnished by your high school or directly from the testing agency. (American College Testing Program, P.O. Box 414, Iowa City, lowa, 52243) Applicants who have been out of high school for a period of six months or more are eligible to take
an admission test administered by Memphis State University. Students are urged to visit or telephone the Office of Admissions (prior to or after making application) for additional information or clarification of test score requirements Special testing arrangements may be made for handicapped persons by contacting the Testing Center or by telephoning (901) 454-2428.
NOTE: In cases involving the availability of the ACT or the timeliness of a test administration, the SAT may be considered.
The Admission Requirements are as follow:
A. Guaranteed Admission

Minimum ACT 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 ACT composite score of 16 or 17 OR at least 2.00 cumulative high school grade point average on a 4.00 scale will be considered for admission by committee. Applicants who fall in 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) reason applicant wants to attend college and specifically Memphis State University. 2. Recommendations from at least one of the following: counselor, principal, or teacher.
C. Special Circumstances

Applicants with special talents or circumstances who do not meet requirements for guaranteed admission or for committee review may be considered. For further information contact the Office of Admissions (901) 454-2390.
3. Age

An applicant must be at least 16 years of age

## Transfer Applicants

An applicant who has attended any accredited college or university must apply as a transfer student. The established deadlines for applying are August 1 for the fall semester; December 1 for the spring semester, and May 1 for the summer session. The applicant must request that a transcript from each college attended be sent directly to the Office of Admissions. Concealment of previous college attendance may be cause for rejection or cancellation of admission.

Admission will be granted only to an applicant who has honorable dismissal from an accredited institution and whose cumulative quality point average (QPA) meets the required minimum QPA established by the Tennessee State Board of Regents. See section 5, Academic Regulations, for the listing of minimum QPA required.

Transfer applicants who have been suspended from another college or university for the term immediately preceding their intended term of entry at Memphis State University will not be eligible for admission for at least one regular semester, not including the summer session.

Transfer applicants with less than 15 semester hours must meet the admission requirements for Freshmen Applicants. Those applicants not meeting the State Board of Regents standards must submit acceptable ACT or SAT scores or take an examination administered by Memphis State University and earn an acceptable score.
Transfer applicants who qualify and are approved for admission will be entered on academic probation if (1) not in good
standing at the last school attended or (2) the quality point average is below the minimum requirements listed in the retention scale in section 5, Academic Regulations.
A transfer applicant who is denied admission should contact the transfer affairs section of the Office of Admissions to discuss any alternatives to or the possibilities for attending Memphis State University in the future (901) 454-2111.

## 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 Background: List on the form provided by the University every school you have
attended, beginning with the time you entered primary school, to the present, including each primary, secondary, and post secondary institution.
2. Required Transcripts: You must arrange for the Office of Admissions to receive official copies of your academic records from your attendance at secondary school, college, university, and professional institutions of learning. These transcripts must be sent directly from your 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, you 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, 08540, U.S.A. All test scores must be sent directly from the testing agency to Memphis State University.
4. Freshman Test Required: Applicants to the firstyear 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, 08540, U.S.A. For information on the ACT, write to American College Testing, P.O.Box 414, Iowa City, lowa, 52243, U.S.A. All test scores must be sent directly from the testing agency to Memphis State University.
5. 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 family 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.
6. If transferring from an American college or university, a personnel evaluation form must be completed by the last school attended and returned to the Memphis State University Dean of Students Office. This form will be sent to you upon receipt of your application.
7. Send two recent passport size photos of yourself to the Office of Admissions, Memphis State University. Memphis, Tennessee, 38152, U.S.A.
8. 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 licensedU.S. physician that such enr ollment does not present a risk to others and upon the student's compliance with any prescribed medical treatment program.
9. All International students must purchase health insurance before they are allowed to enroll.
10. 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 on campus approximately one week prior to registration for the proposed term of entry.
11. International students will not normally be allowed to register as transient students during summer sessions. Exceptions may be granted only in cases where a student has an outstanding record and unusual circumstances are present.
12. International students who wish to apply for readmission to the University must meet the deadlines stated above.
13. The International student must become familiar with the regulations of the Immigration and Naturalization Service and assume responsibility for complying with these regulations.

## 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 earned a baccalaureate degree from an accredited institution who desires to take only a limited number of undergraduate courses and 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 earn a limited amount of regular college credit may do so by applying for admission as an unclassified student and meeting one of the two conditions listed below:

1. A student who has not attended another college or university must provide proof of high school graduation or the equivalent, or be at least 18 years of age.
2. A student currently/previously enrolled in an accredited college or university must submit evidence of eligibility to reenroll at that school. Clearance will be for one term only. Subsequent enrollment will require an application for readmission.
NOTE: Transient students should apply in the unclassified category
Those who are admitted as unclassified students are assigned to the Academic Counseling Unit. 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, unless they have enrolled as a regular student in another college 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 procedure and requirements are the same as those for regular undergraduate applicants, or by earning a cumulative QPA of 2.00 on 12 semester hours or more of non-activity courses at Memphis State. After the student is admitted as a regular undergraduate, any credit that he may have earned as an unclassified student will apply toward degree programs as outlined in the section of the Bulletin for the college from which a degree is sought.

## Combination Student (MSU Senior Only)

An undergraduate student at Memphis State University who is enrolled for courses which complete his/her undergraduate degree may apply for admission to begin graduate study and, in special cases, be allowed to register for graduate courses not to exceed a total of 15 semester hours of combined course work. The student must meet all graduation requirements except for the number of hours and meet admission requirements as a graduate masters student.

## 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 the following criteria are met:

1. The applicant must be at least 16 years of age before the end of the calendar year in which the applicant desires to enroll.
2. A minimum high school cumulative grade point average of 3.00 on a 4.00 scale.
3. An ACT composite score of 20 or above.
4. A recommendation from the applicant's high school principal or guidance counselor.
5. Any other admission criteria established by the department which offers the course selected by the applicant.

## 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. Persons suffering from a permanent disability which totally incapacitates such person from working at an occupation which brings him an income, and persons sixty (60) 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.

## Former Students

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 college since last attending Memphis State University, he must have a transcript and a Personnel Evaluation Form forwarded to the Admissions Office. An applicant will receive favorable consideration only if he is eligible for readmission under all University regulations, including the quality point average for transfer students. (NOTE: International students who wish to apply for readmission to the University must meet the deadlines for new admission for International Students.)

## MISCELLANEOUS INFORMATION

1. Advanced Standing Credit: Credit toward a degree will be accepted only from accredited 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.

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 his quality point average computed using all courses attempted at that institution.

Credit earned 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 teacher certification.

In the case of students enrolled in the University College, credit may also be granted for experiential learning, that is, learning obtained from sources other than academic institutions.
2. 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 taking 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.
3. 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.
4. Veterans: The Veterans Administration requires that each veteran declare a program of education, regardless of category, in order to receive an educational assistance allowance. It is therefore necessary for each veteran in a special category to declare a program of education whether he expects to complete that program at Memphis State University or elsewhere. Veterans in the special category of "Unclassified" at the freshman and sophomore levels may declare their program of education as bachelor's degree and their major as undecided. Veterans in unclassified category at the junior or above level and all veterans in the special undergraduate category must declare a specific degree objective and a major whether the degree is to be earned at Memphis State University or elsewhere.
5. Residency Classification: All determinations concerning the classification of students as in-state or out-of-state for fee-paying and other purposes are made in the Office of Admissions and Records. The determinations are based on the guidelines of the State Board of Regents. A copy of the guidelines used in the classification of students for fee-paying purposes is found with the application in the back of this Bulletin. If, for any reason, there is a question about a student's residency classification for fee-paying purposes, it is his or her responsibility to check with the Admissions Advisor for Residency.

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## Fees and Charges

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## EXPENSES AT UNIVERSITY

The matter of expenses while attending the University is of importance to every student. It is difficult, however, to give specific information about yearly expenditures; expenses vary according to the nature of the curriculum, the place of residence (whether in Tennessee or in another state or country), and the student's own habits and needs. In any student body there are so many different tastes, as well as such a wide range of financial resources, that each student
must determine his budget in keeping with his own needs and financial condition. It is possible to live simply, and to participate moderately in the life of the student community, on a modest budget. The best help the University authorities can offer the student in planning his budget is to inform him of certain definite expense items and to acquaint him with others for which he will in all probability have to provide.
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 bulletins 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 Bulletin is published. As a condition of registration each student will pay the fees in effect at the time he registers.

APPLICATION FEE: Each student submitting an application for admission to the University must pay, at the time he submits his first application, a one-time, nonrefundable 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 Master Card cards if the card is issued to the student, student's spouse, or student's parents. 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 $\$ 35.00$ per semester hour, not to exceed a maximum of $\$ 416.00$. 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 student level. Undergraduate students pay undergraduate rates for graduate courses.

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 $\$ 35.00$ for maintenance fees and an additional $\$ 76.00$ 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 $\$ 879.00$ per semester for full-time students or $\$ 76.00$ per semester hour for part-time students Thus, an out-of-state full-time student is charged $\$ 1295.00$. An out-ofstate student who is enrolled part-time is charged $\$ 111.00$ per semester hour.

The Office of Admissions and Records is charged with the responsibility of assigning a residency classification to each student using guidelines provided by the Board of Regents. The student may appeal the decision to the Committee on Residency. Residency guidelines of the Board of Regents and information on appeals procedures are available in the Office of Admissions and Records. A copy of the guidelines for residency classification is also found with the application in the back of this Bulletin.

## 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 $\$ 17.50$ per undergraduate semester hour, or $\$ 24.00$ 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, or telephone 454-2671
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 $\$ 25.00$.
COMMERCIAL MUSIC FEES: Students who wish to apply for credit for experien-
tial 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.
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 assignent 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.
COURSES IN APPLIED MUSIC: The fee for applied music shall be $\$ 30.00$ per semester for each one-half hour lesson.
STUDENT ACTIVITY FEE: All students enrolled for one credit hour or more will pay a $\$ 1.00$ student activity fee. The amount is $\$ 1.00$ regardless of the total number of hours for which the student is enrolled. There is no activity fee during the summer terms.

## REFUND OF FEES (MAINTENANCE

 FEES, OUT-OF-STATE TUITION, MUSIC FEES): The following refund percentages apply to students who withdraw from the University or who drop to an hourly load below full-time:1. $100 \%$ 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 $25 \%$ 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.

If a student withdraws during the $75 \%$ period, all of the student activity fee is refundable. There is no refund of the student activity fee after this period.

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 con-
trol 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 clases begin and usually should be completed five weeks after classes begin.
RESIDENCE HALLS: Charges for rooms in University residence halls are indicated below. For information concerning application for rooms, see section 4, Student Life and Financial Aid. There is a request form for information with the application in the back of this Bulletin.

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 ASSIGNMENT, OR TO TERMINATE A RESIDENT'S OCCUPANCY, FOR JUSTIFIABLE CAUSE.

CONTRACT PERIOD AND CONDITIONS: Fall assignment/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 $\$ 100$ application/security deposit. Residents who fail to cancel by $4: 30$ P.M. on the second day of undergraduate registration will forfeit the entire $\$ 100$ deposit. The application/security deposit, once submitted with the application, covers your 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 re-admittance 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 second day of undergraduate registration (NO SHOW DATE) will forfeit $\$ 50$ of their $\$ 100$ deposit, but will not be subject to any other penalties. New applicants who fail to cancel by 4:30 P.M. on the second day of undergraduate registration will forfeit their entire $\$ 100$ 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 <br> Room | Semester Rate*** |
| :---: | :---: | :---: |
| Browning | Double | \$335 |
|  | Single | 460 |
| Hayden | Double | 385 |
|  | Single | 500 |
| McCord | Double | 375 |
|  | Single | 500 |
| Mynders | Double* | 400 |
|  | Small Single ${ }^{*}$ | 520 |
|  | Middle |  |
|  | Single* | 550 |
|  | Large |  |
|  | Single * | 575 |
|  | Large |  |
|  | Single** | 610 |
| Rawls | Double | 430 |
|  | Single | 570 |
| Richardson Towers | Double* | 475 |
|  | Single* | 620 |
| Robison | Double | 430 |
|  | Single | 570 |
| Smuth | Double | 375 |
|  | Single | 500 |
| West | Double | 375. |
|  | Single | $500{ }^{\circ}$ |
| *Semi-Private Bath <br> * Private Bath |  |  |

MARRIED HOUSING: The University has 126 apartments for married students 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 monthly rental rates are as follows: one-bedroom apartment, \$175;
two-bedroom apartment, \$200. Electrical utilities are paid by the tenant

Application forms may be obtained from the Office of Residence Life in Room 108, Jones Hall, Main Campus. A $\$ 50$ deposit is required when the application is submitted.
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.
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.
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.
PHYSICAL EDUCATION 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.
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.
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.
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.
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.

## CREDIT BY EXAMINATION OR PLACE-

 MENT EXAMINATION: The fee for taking an examination for credit is $\$ 15.00$ minimum and an additional $\$ 5.00$ 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.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 (Room 151, Administration Building). 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.

IDENTIFICATION CARDS: The University issues to each student an identification card, which bears his photograph, social security number, and certification that he is enrolled as a student in the University. The card is required for registration, the borrowing of library books, and other purposes. The card remains the property of Memphis State University and will be surrendered upon request of a University official. A student will be charged $\$ 10.00$ to replace a card that has been damaged, stolen, or lost. A student will be charged $\$ 2.00$ to make any change in data on his card.

Part-time students who are enrolled for at least six semester hours of credit courses will be given full-time I.D. card validation (Also, see section 4, Student Life and Financial Aid).

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

RETURNED CHECKS: It is expected that a check given the University, for any reason, will clear the bank on which it is drawn. A $\$ 10.00$ service charge will be assessed for each returned check whether given in payment of any fee or cashed by the University for the convenience of the student. Check cashing privileges will be revoked for any student who has had checks returned by his bank more than once within a twelve-month period.

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.

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; his determination may be appealed to the Vice President for Business and Finance; and his determination may be appealed to the President of the University. Traffic fines are subject to a separate appeal procedure.

## SUMMARY OF EXPENSES

|  | Per Hour (Summer and Part-Time) | Fall and Spring Semester Per Semester (Full Time) |
| :---: | :---: | :---: |
| Undergraduate: |  |  |
| In-State Maintenance | \$35.00 | \$41600 |
| Out-of-State Tuition | 76.00 | 879.00 |
| Out-of-State Total | 111.00 | 1295.00 |

Student Housing
(See listing earlier in this section)
Applied Music Courses:
(See information earlier in this section)
Incidental Charges
Activity Fee
Adding or dropping courses. per form
Applicatıon for admıssion, first applicatıon
Automobile Registration, per automobile
Diploma, payable once
Late Registration after official Registration period
Transcripts, per copy after first five copies per request
School and College Ability Test
Residual American College Test
Orientation Services
(New Student Orientation)
P.E. locker and towel. per semester

## Deposits:

Air Force ROTC Uniform
(refundable less charges for loss $\$ 10.00$ or damage)
Dormitory Rooms
refundable less charges, upon
termination of occupancy $\quad 100.00$
Laboratory breakage
(refundable less charges) Variable
Music locker deposit,
per semester, per year
4.00

## Additional Charges

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.

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## STUDENT DEVELOPMENT

Student Development is an administrative area within the Division of Student Educational Services. It is comprised of four departments: (1) Center for Student Development, (2) Student Aid, (3) University Placement, and (4) Health Services. Specialized services are provided by each department to facilitate problem resolution, personal growth, and self-actualization. Students may receive assistance on a walk-in basis or by appointment. Further information may be obtained by contacting the Associate Dean for Student Development (4542291).

## The Center For Student Development

Scates Hall, Room 111
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. By emphasizing developmentally oriented activities, the center strives for maximum contact with the university community. The primary activities of the center include the following:

## individual and group counseling

personal and educational enrichment programming
consultation and training for individuals and campus organizations
tutorial services
The Center for Student Development encompasses a wide variety of free counseling and helping activities through its various components: Academic Counseling, Career Counseling, Personal Counseling, the Testing Center, and the Educational Support Program.
The Center for Student Development gives each student the opportunity to deal with any matters of concern. Because the Center provides a staff of diversified professionals in a centralized location, students and referral agents alike are assured of a complete and comprehensive package to suit their particular needs. The center is viewed as a useful resource for any individual who has a concern (no matter how small) or a crisis (no matter how large). For the opportunity for assistance in any of the activities named below, the student should contact the office of the Center for Student Development (454-2067).

## Personal/Psychological Counseling Scates Hall, Room 111

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. Staffed
by professional psychologists and coun selors, the personal counseling unit is committed to helping students grow in self-understanding so that they may use their assets effectively and move toward meaningful future goals. Problems in interpersonal relationships, feelings of loneliness or inadequacy, family or marriage difficulties, depression, lack of confidence, 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. (454-2067)

## Academic Counseling

Scates Hall, Room 107 (454-2062)
All freshmen, transfer, and readmitted students without an academic major are assigned to an academic counselor. The purpose is to provide academic counsel ing which will prepare students for enroll ment in one of the degree-granting colleges once they have chosen an academic major. The counselor is availa ble to discuss with the student the many academic programs offered by Memphis State University and to acquaint him with the requirements of the various programs.

The academic counseling unit of the Center for Student Development provides an atmosphere in which a student can freely explore educational and devel opmental goals with the assistance of a full-time counselor who can provide infor mation and referral for faculty assist ance, career counseling, vocational testing, and help with any personal problems related to academic success and adjustment to the University environment.

## Career Counseling

Scates Hall, Room 104 (454-2228)
Career counseling at the Center for Student Development affords students an opportunity to explore career options, obtain information relating academic majors to career choices, evaluate employment outlook information, match education to careers, reinforce decision making skills, and develop realistic career goals. The counselors are trained and experienced in working with students who are uncertain or confused about selecting among the many career options available to them. Through testing, counseling, and confronting the issues, each person is given the opportunity to make a well-considered choice. For persons ready to face the job market, the career counseling unit provides related workshops and assistance. Special careerrelated programs are available to individuals and interest groups.

## The Testing Center

Scates Hall, Room 103 (454-2428)
The testing center provides testing services for university and professional school admissions purposes as well as for
icensure and certification in a variety of orofessional areas. A wide variety of tests ncluding the ACT Test, Miller Analogies Test, the Graduate Record Exam, the -aw School Admissions Test, The Senior -evel Achievement tests, the Medical College Admissions Test, and the Gradute School Foreign Language Test and thers are administered under the ausices of the testing center.

## Educational Support Program <br> Winfield Dunn Building, Room 143 (454-2704)

The Educational Support Program provides assistance to students in developing and improving the skills necessary for a successful academic experience. In addition to tutorial programs in reading, English composition, mathematics, foreign language, and learning skills, counseling referrals are also available for persons wishing to discuss educational and personal concerns. Individual and group consultation as well as audio-visual and programmed instruction are available on a walk-in, voluntary basis. Moreover, a oster of private tutors for specific courses is maintained. Periodic workshops in academic survival skills are presented in a variety of settings.

## University Health Center

## Location and Hours

The University maintains on the main campus a health center which is located at the corner of University and Desoto Avenues. The University Health Center is open Monday through Friday, 8:00 a.m. to $4: 30 \mathrm{p} . \mathrm{m}$. Additional information about the center services may be obtained by calling 454-2287.

## Eligibility for Care

Students will be given priority for services; however, all medical services are available to faculty and staff members. Except in cases of emergency, each visit to the health center requires that the individual present his validated identification card before treatment.
Permission for Treatment: Those patients under 18 years of age must have a permission for treatment form signed by their parent or legal guardian. Patients under 18 years of age who do not have the signed treatment forms cannot be treated at the University Health Center except in cases of emergency. Patients who are 18 year of age or older may sign the permission form themselves. The permission for treatment forms may be obtained at the center.
Medical Record: Prior to treatment in the Health Center, the patient is required to complete a short personal medical record. A physician's examination is not necessary. All medical records of patients are privileged communication, and information is not released to any
source without the written, valid consent of the patient, except when required by law and / or court order.

## Services

The University Health Center is staffed with a physician, nurse practitioner, registered nurses, medical and x-ray technologist, and various administrative support personnel. The Center's major emphasis is on the diagnosis and treatment of short-term, acute, episodic, medical illnesses on an outpatient basis. Specialty clinics are provided in nutrition and dermatology during the Fall and Spring semesters, by appointment only. A Family Planning Clinic is provided by the Memphis and Shelby County Public Health Department in the Health Center on Wednesday and Thursday afternoons all year. The Family Planning Clinic provides birth control information and examinations. If the patient cannot keep an appointment for one of the specialty clinics, he should call 454-2287 to cancel so that the time may be given to another patient.
Physicals: No routine physicals are performed by the University Health Center. Immunizations: Allergens and other series preparations will be administered by the Center personnel when requested by the patient's private physican.
Equipment Loan: The Center will loan crutches and wheel chairs to eligible patients on a short-term basis. The patient will assume financial responsibility in the event of damage or loss of the loaned equipment.
Verification of Totally Disabled Persons: The Center shall examine certification of permanent disability (not the applicant) and determine the eligibility of the applicant under the applicable legislation to audit credit courses offered without charge on a space available basis. This certification of permanent disability shall be a current letter from the individual's attending physician which states that the individual is unable to engage in income producing activities, or Social Security Disability Form SSA- 2458 which specifies the nature of the disability and states that the student is receiving payment for total disability; or a medicare card if the individual is under 65 years of age. The certification or copies will remain in the Center. Eligibility for this program will be certified to the Office of Admissions and Records. These same guidelines apply to determine eligibility of totally disabled students to enroll in the "Disabled or $65+$ " program for credit at a reduced fee.
Handicapped Parking Spaces: Upon receipt of a current letter from the attending physician or the Director of Handicapped Student Services giving the name of the individual, the diagnosis, indication that the individual's condition will be aggravated by parking several blocks from the classroom and the length of time the condition will probably exist, the Center will recommend that a Handicapped Parking permit be issued. Parking permits will be issued by Security, 151 Administration Building.

Excuses: Excuses for class absence are the prerogative of the faculty member involved; therefore excuses for class absence are not given out by the Health Center personnel. A form stating the student's name, date, and time of the visit to the University Health Center will be provided upon request. No information will be released without prior written consent from the patient.
Add/Drop/Withdrawal: In order for a patient to receive a recommendation for a medical drop from the University Health Center, the patient's current attending physician must certify in writing that the patient is unable to complete the semester and that so doing would be injurious to his health.

## Emergencies

In the event of injury or sudden illness occurring in the classroom or on the campus, the senior faculty or staff member present will evaluate the situation to the best of his capabitity, call the University Health Center (extension 2287), and provide the nurse or physician with the following information:

1. Name of person calling, location and phone number.
2. Name of patient, nature of illness or injury, and the patient's Social Security number.
3. Location of the patient.

Upon receipt of such a call, the Health Center nurse or staff physician will evaluate the situation and make appropriate disposition. If removal of the patient to the University Health Center is considered possibly injurious to the patient, on the scene evaluation will be made. In the event that removal of the patient to the University Health Center is considered safe and advisable, the Health Center staff will notify the Security Office whose personnel will move the patient to the University Health Center with due care and dispatch.
After Hour Emergencies: Emergency medical conditions which occur at times other than when the University Health Center is open will be coordinated by the professional University Security Service, extension 2212. The patient may be transferred to a local medical facility if conditions warrant, and the patient will be responsible for the cost of transfer and care at that facility.

## Charges

Routine diagnosis and treatment, $x$ rays, most laboratory analysis, and specialized clinics are free of charge. The Family Planning unit will charge patients on a sliding scale basis. When more indepth treatment is needed and the patient is referred off-campus, the patient is responsible for all charges incurred for these services. There are no charges at the Health Center for laboratory services except for pregnancy tests, pap smears, and certain highly specialized tests which have to be sent to an outside pathological laboratory. The
patient will be asked to pay the Health Center directly prior to the performance of the pregnancy test, pap smear, or specialized tests. The charges for these tests will be at cost.

## Health Insurance

Since major medical care is occasionally needed on an emergency basis or short notice, students are strongly encouraged to make arrangements to obtain health and accident insurance coverage. In the event that this insurance is desired, the University has authorized and approved a private insurance company to provide coverage, which the student pays for directly. Details pertaining to this insurance is available at the time of registering and in the Health Center. Since no fees are charged for the majority of services provided by the University Health Center, insurance papers will not be completed by the Health Center personnel (i.e. Workman's Compensation, etc.).

## Student Aid Office

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 financial assistance must submit the American College Testing Program Family Financial Statement. All undergraduate students 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. All awards are made on an academic year basis. All students must submit a new application each year.

All inquiries concerning financial aid should be addressed to the Director of Student Aid unless some other procedure is specifically indicated in the following description of scholarships and loans. A detailed listing of all policies, rules, regulations, selection process, and other information pertaining to governance of student aid programs is available in the Student Aid Office. A request form for additional information is found in the back of the Bulletin with the application blank.

## Scholarships

The University awards several hundred scholarships each year in varying amounts from $\$ 50$ to $\$ 2,000$. Most scholarships awarded cover the amount of registration fees, but the stipend is determined by the student's need for financial assistance. Scholastic achievement, personal and leadership qualities and need
are the 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 twenty-five percent of their high school graduating classes. Currently enrolled students must have at least a 2.5 overall grade point average. Scholar ships are awarded on an academic year basis. Each student wishing scholarship consideration must submit an application each academic year. Information on special scholarships may be obtained from the Student Aid Office.

## State Board of Regents Scholarship

The 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 and the State's ten public community colleges. 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.

For applications and further information on this program, qualified students should contact the Student Aid Office.

## Cecil C. Humphreys Presidential Scholars Program

Twelve $\$ 8,000$ four-year scholarships 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:

1. An ACT score of 28 or higher, or the corresponding SAT score.
2. High school transcript
3. Excellence of performance in an area of interest.
4. Quantity and quality of extra curricular and extra-mural activities.
5. Evidence of sound character, work habits, and attitude.

The scholarship program is funded by contributions to the Memphis State University Annual Fund from Alumni and other friends and by Athletic Department revenues. The scholarship program is named for Dr. Cecil C. Humphreys, President Emeritus of Memphis State University.

## General Scholarships

THE GENERAL UNIVERSITY SCHOLARSHIP FUND provides scholarships varying in amount and duration to outstanding high school students.

THE MEMPHIS STATE UNIVERSITY ANNUAL FUND each yea provides a sum of money to be awarded to students wi outstanding academic records. These scholarships vary mined by the student's need for assistance and academi potential. The fund is supported by gifts from alumni an friends of the University.
THE UNIVERSITY WIVES' CLUB JUNIOR SCHOLARSHI AWARD is annually presented to the wornan member of the junior class who has attained the highest scholastic average THE C. M. GOOCH SCHOLARSHIP FUND was established from proceeds of the estate of the late Mr. C.M. Gooch. Its purposis to provide grants to students who without such assistano would not be able to attend college. The maximum a studen may expect to receive in a calendar year is $\$ 300$. The studen must be in good academic standing and must show need fo assistance as determined through application procedures o the Student Ald Office.
THE TAYLOR AND MARY RICHARDSON SCHOLARSHIP awarded to a graduate of Lake County High School in Tipton ville. Tennessee. Applicants must apply and be accepted as freshmen, demonstrate academic ability and financial need.
THE UNIVERSITY PROGRAMS FASHION BOARD SCHOLAR SHIP is based on applications from members of the Fashion Board who exhibit academic excellance and have performec well as members of the Board.
THE COMMUNITY COLLEGE PRESIDENTIAL SCHOLARSHIP is a turtion scholarshıp awarded to a student of each of Tennessee's ten community colleges.
THE BILLY M. JONES SCHOLARSHIP was established to honor the former President of Memphis State University. Dr. honor the former President of Memphis State Univer sity. Dr.
Billy M. Jones. The $\$ 750$ scholarship is awarded to an under-
graduate student studying marketing commercial arts, any graduate student studying marketing, commercial arts, any any proposed course in institutional development or area relating to the Division of University Community Relations. THE EDWARD A. HAMILTON FIRE FIGHTER SCHOLARSHIP is awarded to a fire fighter or a dependent of a fire fighter who is in need of financial assistance.
THE ALUMNI FRESHMEN SCHOLARSHIP covers registration fees for beginning freshmen who reside in a county which has been awarded an alumni funded scholarship based on participation in the MSU Annual Fund Program for the preceding pation
THE STUDENT GOVERNMENT ASSOCIATION SCHOLARSHIP is an in-state tuition award given to students who are planning to attend Memphis State University full-time. In-coming freshmen must have made at least a 21 on the ACT or an equivalent SAT score. Transfers and currently enrolled students mus
maintain a 2.75 cumulative grade point average. The scholar maintain a 2.75 cumulative grade point average. The scholar ship is non-renewable.
THE MSU UNIVERSITY WIVES SCHOLARSHIP is awarded to a student who has at least a sophomore standing. a 3.0 minimum GPA, and demonstrates financial need.
THE JAMES E. McGEHEE MORTGAGE COMPANY SCHOLARSHIP was endowed in 1966 by the McGehee Mortgage Company with a $\$ 10,000$ donation. Interest from the investment of these funds is used to award an annual scholarship to an outstanding high school graduate.
THE MEMPHIS STATE UNIVERSITY FACULTY-STAFF SCHOLARSHIP was established in 1971 as an endowment program. Several scholarships are awarded annually on the basis of financial need and scholastic ability.
THE BILLY J. MURPHY SCHOLARSHIP was established in 1974 to honor former MSU Athletic Director Billy J. Murphy for his long service to the school. The $\$ 725$ scholarship award is made to a Memphis area student who has demonstrated financial need and shows scholastic ability.
THE HATTIE G. WATKINS SCHOLARSHIP annually provides frve scholarships at $\$ 500$ each to students on the basis of scholastic standing and inancial need. These scholarships are awarded to students who are employed part-time to help finance educational expenses.
THE HORACE H. WILLIS MEMORIAL SCHOLARSHIP of $\$ 250$ is awarded from tume to time 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 demonone scholarship to a Shelby county resident, who demon-
strates exceptional academic achievement and financial strates.
THE LESLIE GRUBER SCHOLARSHIP is awarded annually to an incorning Tennessee high school graduate who has shown academic ability of at least a 3.0 GPA on a 4.0 scale and, 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 graduates of Memphis high scho

## College of Arts and Sciences

THE BELLE McWILLIAMS SCHOLARSHIP recipients must be enrolled in the College of Arts and Sciences demonstrating an above average interest in American History, have diverse extra-curricular activities, and outstanding academicachievement. The recipient must be a sophomore or above with a least a 3.0 GPA .
THE CARROLL BOWMAN SCHOLARSHIP is awarded to a Philosophy major with demonstrated financial need and academic potential.
THE BOTANY BOOK AND SCHOLARSHIP is awarded to a student in Botany or Biology with minimum of 2.5 GPA .
THE CHILD WELFARE SCHOLARSHIP is maintained by the Opportunity Foundation Corporation and the State of Tennes-
see. Several scholarships in the amount of $\$ 500$ each are
awarded annually to full-time juniors or seniors majoring in socialwork. Recipients are selectedjointly by the faculty in the social work. Recipients are selected jointly by the faculty in the
Division of Social Work and the Student Aid Office. Awards are Division of Social Work and the Student Aid Otfice
based on scholastic standing and financial need THE OPPORTUNITY FOUNDA TION PAUL SCHWARTZ SCHOLARSHIP covers malntenance fees for
are seniors with a 2.5 minimum GPA.

## The Fogelman College of Business and Economics

## THE MEMPHIS STATE UNIVERSITY BETA ALPHA PSI ALUM-

 NI SCHOLARSHIP is awarded to an accounting major who hasachieved at least junior standing and a minimum of 3.0 achieved at leas
curnulative GPA.
THE AMERICAN SOCIETY OF WOMEN ACCOUNT. ANTS-MEMPHIS CHAPTER annually awards a one year, ful
in-state tuition scholarship based on scholarship and need to in-state tuition scholarship based on schol
THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNT. ANTS SCHOLARSHIP-MEMPHIS CHAPTER presents one or more scholarships to accounting majors based on good scholTHE INSURANCE WOMEN OF MEMPHIS SCHOLARSHIP is awarded to an insurance major who has at least sophomore
standing. Applications can be obtained through the Finance, standing. Applications can be obtained
Insurance and Real Estate Department.
THE MEMPHIS CHAPTER OF THE SOCIETY OF CHARTERED check and a plaque to the outstanding student in the field of insurance.
NATIONAL SECRETARIES ASSOCIATION, MEMPHIS CHAP. TER annually awards a $\$ 300$ scholarship to a graduating high school se
secretary.
secretary.
FINANCIAL EXECUTIVES INSTITUTE SCHOLARSHIP of $\$ 250$
is awarded annually to a second semester junior in The is awarded annually to a second semester junior in The
Fogeiman College of Business and Economics based on ability. need and an interest in controllership or financial management.
THE MID-SOUTH SPECIALITY ADVERTISING ASSOCIATION offers one $\$ 1000.00$ scholarshıp to a marketing major who
has interest in a career opportunity in the specialty advertising field.
THE UNION PLANTERS NATIONAL BANK: MEMPHIS STATE UNIVERSITY FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS ALUMNI CHAPTER SCHOLASTIC ACHIEVEMENT
AWARDS are given three times per year at $\$ 200$ per semester. The awards are based on the student's grade point average. THE DELTA LIFE AND ANNUITY SCHOLARSHIP covers tuition THE ROBERT HUNTING, JR., WHITE STATION OPTIMIST CLUB SCHOLARSHIP is awar ded to a student inter OPted in the field of banking who has at least a 2.5 GPA and needs financial field of banking who has at least a 2.5 GPA and $n$.
assist ance to attend Memphis State University.
THE BOBBIE BROOKS SCHOLARSHIP is awarded to a market-
ing / sales major. ing/sales major
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
member of Rho Epsilon Real Estate Professional Fraternity.
THE THOMAS Y. OWEN SCHOLARSHIP is awarded to a U.S. resident, accounting major, demonstrating both financial need and outstanding academic achievement
THE ETHEL LEWIS SCHOLARSHIP is an award sponsored by
the University Career Women of Memphis State University the University Career Women of Memphis State University
This award in the amount of the annual registration fee is This award in the amount of the annual registration fee is
available to a junior or senior student majoring in office admınistration 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.
THE MEMPHIS HOUSEWARES CLUB provides an annual scholarship in the amount of registration fees to a student majoring in marketing
THE MEMPHIS LEGAL SECRETARIES ASSOCIATION SCHOL-
ARSHIP provides one scholarship annually in the amount of ARSHIP provides one scholarship annually in the amount of $\$ 500$ to a junıor or senior students majoring in office adminis-
tration or secretarial sciences and who intends to enter the tration or secretarial sciences and who intends to enter the
legal secretary profession. This scholarship is awarded on the legal secretary profession. This scholarship
basis of scholastic ability and financial need.

## College of Communication and Fine Arts

THE VARIETY CLUB: ROBERT S. JOHNSON SCHOLARSHIP was endowed in 1974 to honor the late noted writer for the Memphis Press Scimitar. A $\$ 500$ scholarship is given to a
junior or senior majoring in journalism and seeking a career in some phase of that profession. Both financial need and scholarship are factors in the selection of the recipient.
WILLIAM B. TANNER SCHOLARSHIP IN COMMERCIAL students in commercial music artistry, business or technolo-

## gy CO

COTERIE CLUB DRAMA SCHOLARSHIP of $\$ 200$ is awarded annual
major.
HERBERT HERMANN MEMORIAL PIANO SCHOLARSHIP IS awarded to a pianist with at least a 20 ACT or a 3.0 GPA.
Auditions for jury board exams will be considered. The scholarship selection is coordinated by the Music Department Piano Facuity and the Student Aid Office.
THE FRANK M. McGEARY FILM SCHOLARSHIP provides $\$ 400$ annually in lab services at Motion Pictures Labs, Inc., to a film student in good standing majoring in Theatre and Communica-
tion Arts.

ELEANOR B. O'NEILL SCHOLARSHIP of $\$ 500$ is awarded to a junior or senior student in journalism, public relations or advertising who shows promise in the field.
JAN GARDNER AND ASSOCIATES INC., ADVERTISING SCHOLARSHIP of $\$ 500$ is awarded annually to a deserving ournalism student planning a career in advertising or a related leld
MEMPHIS ADVERTISING FEDERATION ASSISTANTSHIP of $\$ 2200.00$ is designed to encourage young people with outstanding scholastic and journalistic ability.
MEMPHIS GRIDIRON MIKE MCGEE MEMORIAL SCHOLARSHIP is awarded to an upper classman majoring in journalism who has demonstrated outstanding scholastic and journalistic ablity.
SCRIPPS-HOWARD FOUNDATION, EDWARD J. MEEMAN SHOLARSHIP in the amount $\$ 500$ is annually awarded to a unior or senior student in journalism who intends to enter the field of newspaper journalism.
WILLIAM RANDOLPH HEARST FOUNDATION SCHOLARSHIP of $\$ 250$ is awarded annually to an upperclassman majoring in journalism who intends to enter newspaper journalism.
HAIR SCOLARSHIPS are awarded annually to students majoring in theatre and communicaton arts on the basis of financial need and promising talent
ISSAC HAYES EVENING OF SOUL SCHOLARSHIPS are awarded annually to students majoring in theatre and communica tion arts on the basis of financial need and demonstrated competence in communication and/or theatre arts.
MEMPHIS AREA BROADCASTERS SCHOLARSHIP is awarded annually to an outstanding undergraduate in the area of broadcasting.
THE TERRY PIANO SCHOLARSHIP is awarded annually to a deserving pianist
THE HAROLD KRELSTEIN SCHOLARSHIP is awarded to a student planning to pursue a career in radio. TV or film and who has demonstrated financial need and academic achievement.
THE ELBA GANDY MEMORIAL MUSIC SCHOLARSHIP is awarded to a student studying music at Memphis State University.
THE LUCILLE BIGBEE SCHOLARSHIP is awarded to a deserving music major
THE MEMPHIS CHAPTER, PUBLIC RELATIONS SOCIETY OF AMERICA SCHOLARSHIP is awarded to a senior majoring in the public relations sequence with a GPA of 3.0 through the
junior year and who is an active member of the MSU PRSSA junior year and who is an active member of the MSU PRSSA chapter.
THE SERTOMA CLUB, ROBERT TELLY JOURNALISM SCHOLARSHIP was established to honor a long-time member of the editorial staff of the Memphis Commercial Appeai Each year the Sertoma Club of Memphis awards a scholarship valued up o $\$ 350$ to an advanced journalism student who has done outstanding work at Memphis State University Applications tion and Fine Arts.
THE TENNESSEE ASSOCIATION OF BROADCASTERS SCHOLARSHIP provides one annual scholarship of $\$ 300$. This scholarship is awarded to the full-time junior or senior radiotelevision major with the highest cumulative grade point average for the previous semester

## College of Education

SARAH P. EATON SCHOLARSHIP, funded by a gift from the estate of Sarah Prewett Eaton, provides scholarships for elementary education students from Critenden and St Francis counties in Arkansas.
KERMIT G. HANCOCK SCHOLARSHIP FOR DISTRIBUTIVE EDUCATION provides scholarships to students who plan to EDUCATION provides scholarships to students who plan to
major in Distributive Education and become teachers of major in Distributive Education and become teachers of
Marketing and Distributive Education in high schools in the Marketing and Distr
State of Tennessee.
MSU COLLEGIATE DECA SCHOLARSHIP is presented annually to outstanding Memphis area high school distrit'tive education students who plan to attend Memphis State University and major in distributive education.
RALPH AND RUTH HATLEY SCHOLARSHIP is presented by the HPER Wives Club to a junior or senior who is majoring in one of the degree programs of the department, and shows excellence in scholarship, leadership, service and professional attitude.
MEMPHIS HOME FURNISHINGS ASSOCIATION SCHOLARSHIP is awarded annually to junior or senior who has demonstrated high academic achievement and plans a career in the field
KIWANIS CLUB OF EAST MEMPHIS MEMORIAL SCHOLARSHIP is presented to a junior or senior majoring in special
education and demonstrating high achievement and need. education and demonstrating high achievement and need The recipient must be a resident of Shelby County.
THE DOWN'S PARENTS OF MEMPHIS SCHOLARSHIP is awarded to an outstanding junior majoring in special educaton. The student must have earned 55 hours but no more than 84 hours. Criteria: leadership, service to the community scholarship.
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 assistance.
HAROLD W. PERRY SCHOLARSHIP is presented annually to a student majoring in special education and rehabilitation who. in training as a teacher to work with the multihandicapped, demonstrates high scholastic achievement, experience and a willingness to work with the handicapped.
KATHERINE B. SEVEDGE SCHOLARSHIP is presented to a senior who is a degree candidate in elementary education, a esident of Shelby County. has demonstrated high academic eaching teaching.

MYRLEE WRIGHT SCHOLARSHIP is presented to a student who is seeking a degree in elementary education, a resident of McNarry County area and planning to pursue the profession of teaching.
ALPHA DELTA KAPPA (AIpha Chapter) SCHOLARSHIP is presented to a junior or senior who is resident of Shelby County. has demonstrated high academic achievement and need and plans to pursue the profession of teaching
ALPHA DELTA KAPPA (Lambda Chapter) SCHOLARSHIP is presented to a junior or senior who is a resident of West
Tennessee and has demonstrated high academic achievement and plans to pursue the profession of teaching.
THE ALLEN SHACKELFORD EAST MEMPHIS EXCHANGE SCHOLARSHIP is awarded to a hearing impaired or deaf applicant is chosen, the award is to go to a student training to 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 applicant must demonstrate need and maintain a 3.0 overall GPA.

## The Herff College of Engineering

THE MEMPHIS SOCIETY OF PROFESSIONAL ENGINEERS SCHOLARSHIP is awarded to an upcoming junior engineering student.
THE MINORITY ENGINEERING SCHOLARSHIPS are for fulltime engineering students who are U.S. citizens or nationals
who are Black. Chicano/Mexican American, Puerto Rican or who are Black. Chicano/Mexican American, Puerto Rican or
American Indian, who are enrolled in engineering programs for the first time and who need some financial assistance in or der to pursue an engineering education.
THE RAYMOND JOHN AND MYRLIE FENNER COLTHARP MEMORIAL SCHOLARSHIP is awarded to an undergraduate engineering techno
THE INSTITUTE OF NUCLEAR POWER OPERATIONS SCHOLARSHIPS are awarded on the basis of merit to students with excellent academic records and demonstrated interest in and potential for nuclear utility careers.
THE DEMPSEY B. MORRISON, JR., MEMORIAL SCHOLAR-
SHIP is awarded to an undergraduate engineering technology SHIP is awarded to an undergraduate engineering technology student who has at least a 3.0 GPA and financial need.
THE BRUCE TUCKER MEMORIAL ASSOCIATED GENERAL CONTRACTORS SCHOLARSHIP is awarded to one student in the junior year, who is pur suing a civil engineering or construction technology degree.
THE RICHARD E. WHITMORE SCHOLARSHIP is awarded to a Tennessee resident who is a sophomore, junior or senior in the
Herff College of Engineering demonstrating both financial Herff College of Engineering demonstrating both financial
need and academic acheivement, preferably majoring in construction and an active member of the student chapter of AGC.
THE ASSOCIATED GENERAL CONTRACTORS OF MEMPHIS 1973, provides $\$ 500$ grant with preference given to a student majoring in Construction Engineering Technology at MSU.
THE ASSOCIATED GENERAL CONTRACTORS OF MIDDLE TENNESSEE CONSTRUCTION INDUSTRY ADVANCEMENT
FUND SCHOLARSHIP was established in 1974 The $\$ 500$ FUND SCHOLARSHIP was established in 1974 The $\$ 500$
grant is made to a student from the Middle Tennessee area majoring in Construction Engineering Technology and planning a career in that profession.
THE HERFF ENGINEERING SCHOLARSHIPS provided annually through the Herbert Herff Estate are avaalable to beginning and currently enrolled students who have a demonstrated aptıtude for engineering Applications for these scholarships are submitted through the Herff College of Engineering
HOME BUILDERS ASSOCIATION OF MEMPHIS-LADIES AUXILIARY OF MEMPHIS provides two scholarships at $\$ 500$ each per year. The recipients are selected by the Division of Engineering Technology with approval of such by the Ladies Auxiliary Applicants must be Technology students in need.
THE W. F. JAMESON MEMORIAL SCHOLARSHIP is awarded THE W. F. JAMESON MEMORIAL SCHOLARSHIP is awarded
annually to a freshman student in the Herff College of Engiannually to a freshman student in the Herff College of Engi-
neering. The recıpient of this scholarship must intend to pursue a career in construction engineering.
THE MEMPHIS CHAPTER OF THE TENNESSEE SOCIETY OF PROFESSIONAL ENGINEERS AND THE MEMPHIS STATE
UNIVERSITY FOUNDATION Jointly sponsor two scholarships annually for a junior and senior year engineering student Applications for these scholarships are submitted through the Herff College of Engineering.
ASHLAND-WARREN SCHOLARSHIP provides a $\$ 425$ scholarship annually to one junior or senior student majoring in construction technology with priority being given to students taking a course( $\$$ ) in bituminous products. Selection is based on needs as well as acadernic ability. Application can be made through the Division of Engineering Technology with final selection being made by Ashland-Warren Company
THE WHIRLPOOL MANUFACTURING TECHNOLOGY SCHOLARSHIP provides two $\$ 350$ scholarships annually to junior and senior students majoring in engineering technology with interest in metal products manufacturing.
TENNESSEE ROAD BUILDERS ASSOCIATION provides four scholarships per year at $\$ 400$ each. Students must be interested in following a transportation career and construction related to road building. Selection is made by the Tennessee Road Builders Association.

## Department of Nursing

THE SHARON L. HANSARD MEMORIAL SCHOLARSHIP IS awarded to a student enrolled in MSU's Department of Nurs-
to service to others, possess academic ability and have a need for linancial assistance to attend MSU
THE DEBRA ANN BOONE SCHOLARSHIP is awarded to a junior or senior majoring in Nursing, who demonstrates financıal need and maintains at least a 25 GPA.
THE NURSING ALUMNI SCHOLARSHIP is designed to assist deserving students in pursuing a nur sing career. The applicant must maintain a 3.0 or better GPA

## Special Scholarships

ARMED FORCES COMMUNICATIONS AND ELECTRONICS ASSOCIATION (AFCEA) awards one $\$ 500$ scholarship annually to a sophomore AFROTC cadet for undergraduate study in a course relating to AFCEA's sphere of interest (Electrical. a course relating to AFCEA's sphere of interest (Electrical.
Electronics or Communications Engineering: or technical photography). The winning cadet receives two checks for $\$ 500$ tography). The winning cadet receives two checks for $\$ 500$ year. Inquiries should be directed to the Department of Aear. Inquirles sho
AFROTC COLLEGE SCHOLARSHIPS cover full tuition, laboraAFROTC COLLEGE SCHOLARSHIPS cover full tuition, labor a-
tory fees, incidental fees, remmbursement for textbooks and $\$ 100$ per month in nontaxable pay are available to those enrolled in the Aer ospace Studies program. Such scholarships may be awarded for two. three, or four years and must be applied for during the school year preceding their activation Four-year scholar ships are available only to those qualified to enter the flying training. Eligible students apply to Air Force ROTC, Four Year Scholarship Branch. Maxwell AFB, AL, 36112, not later than December 15 of their senior year in high school. Applications for other scholarships (2nd and 3rd year) are handled through the Department of Aerospace Studies and must be submitted by Spring Commencement of the preceding year.
BAND SCHOLARSHIPS varying in amounts from $\$ 50$ to $\$ 250$ are awarded annually to University band students. Inquiries should be addressed to the Director of Bands.
THE JAKE FONDREN SCHOLARSHIP recipient must be a U.S citizen, in good academic standing, demonstrate financia need, be an undergraduate and exhibit a definite interest in golf.
THE MEMPHIS AMATEUR BOXING ASSOCIATION SCHOLARSHIP provides two scholarships annually in the amount of $\$ 500$ each. Priority is given to full-tıme students who are members of this Association. The purpose of this scholarship 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 U.S. RACQUETBALL ASSOCIATION, INC., SCHOLARSHIP is achieved through direct competition with players and teams from 33 universities across the country The scholar ship is avallable only if the team wins the championship. THE KODAK EMPLOYEE/ALUMNI GRANTS are awarded on the basis of Memphis State graduates that are celebrating their fifth anniversary with Eastman Kodak. Scholarships are given to colleges from which the alumni graduated

## 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 one-half his 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.

## Law Enforcement Education Program

The Law Enforcement Education Program, as enacted by the Omnibus Crime Control and Safe Streets Act of 1968 , offers assistance in the form of loans and grants to law enforcement officers desiring to continue their education in the law enforcement field.

## 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 nine months after a student graduates or interrupts his course of study; then 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 or Vista.

## 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 is as follows:
THE AMERICAN ASSOCIATION OF UNIVERSITY WOMEN LOAN FUND OF $\$ 200$ admınistered 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 shortterm. 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 if. 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-tıme graduate students who are planning to be teachers.
TENNESSEE ASSOCIATION OF PUBLIC ACCOUNTANTS LOAN FUND was established to enable a needy junior or senior student in the Department of Accountancy to remain in the University. Loans are non-interest as long as 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. 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 short term educational loans to assist students with registration costs and to assist students who have educationally related emergency situations. Eligibility is based upon a 2.0 GPA , a semester of previous enrollment, and the student must not have any 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 registration fees. In order to apply, a student must submit a financial statement to the following:
Tennessee Student Assistance Corporation
B-3 Capitol Towers, Suite 9
Nashville, Tennessee 37219

The ACT Code number for the Tennessee Student Assistance Corporation is 4015. Applications for this grant may be obtained through the Student Aid Office or by writing to the above address. Determination as to grant recipients is made by the Agency in Nashville. For more information, write to the Tennessee Student Assistance Corporation.

## Pell Grant

The Pell Grant is a non-repayable, federally funded, grant program for undergraduate students only. 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 for the program. Applicants who submit the ACT Family Financial Statement or Pell Grant Application may expect to receive a Student Eligibility Report (SER) 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

There are several reliable plans under which parents may make loans to help defray the cost of college expenses. These plans provide loans at nominal rates of interest and are repayable in monthly installments. One such plan is Tuition Plan, Inc. Parents interested in securing additional information about college financing of this type can obtain more information by writing to the following:
The Tuition Plan, Inc.
Concord
New Hampshire 03301
The Tennessee Educational Loan Corporation, in cooperation with the federal government, guarantees 100 per cent of loans made by Tennessee banks or other lending institutions to students from Tennessee who need to borrow money for their college education. This program enables lending institutions to provide long-term, low interest loans to students with a guarantee of receiving payment. In most cases the federal government will pay the interest on these loans while the student is enrolled in college, and repayment does not begin until the borrower leaves college. Applications may be obtained from participating lending institutions and will be furnished by the University upon request. Similar programs known as Guaranteed Student Loans or Federally Insured Student Loans are available for non-residents through their home states. The Student Aid Office maintains a listing of all state agencies.

## 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 Regu-
lar Work Program. Students seeking employment should contact the University Student Employment Office in Scates Hall (Room 314). 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, Pell Grant and show financial need. The Tennessee Department of Employment Security maintains an office on campus for assisting students with off-campus employment.

## 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 cumulative hours for which they receive financial aid payment.
2. Cumulative Progress: Students, in addition to the above, must meet the academic retentıon 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 enroliment or they must have met the requirements of satisfactory financial aid progress at the previous institution.
Financial Aid Probation
6. 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.
7. A student who is placed on academic probation is automatically on Financial Aid Probation.

## Removal from Probation

1. A student will be removed from Financial Aid Probation at the end of the probation term if he/she satisfactorily completes the term and meets the requirements of Progress Standards.
Removal from Financial Aid
2. A student on Financial Aid Probation who fails to meet the standards of progress in the probation term of enrollment will not be able to receive additional financial aid until such time as he/she meets the standards for removal from Financial Aid Probation.
3. Any student who has a GPA of 0.0 for the second time will be removed from financial aid for one term of enrollment.
4. Any student who withdraws for the second time from the University will be removed from financial aid. A third withdrawal will result in the student's being permamently 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 can take the appeal 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 acceptable for the appeal are:

1. Serious illness or accident to the student This will normally require a medical statement from a physician.
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 fallure to meet the requirements of satisfactory academic progress.
2. All awards are tentative, subject to:
a. Legislative appropriation and receipt 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. Students meeting and maintaining 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 enroliment from the University must notify the Student Aid Office.
5. All awards (loans, scholarships and grants) admınistered by the University are subject to the University's Refund Policy and the Student Aid Refund/Repayment Policy.
6. College Work Study awards do not pay tuition/dorm fees. College Work Study is a part-time job; do not expect to study during work hours. 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 interivew prior to leaving the University.
8. All award recipients (scholarships, loans, grants, and College Work Study) must reapply by April 1 of each year. It is the student's responsibility to secure and complete the appropriate application materials.
9. Loan, grant and scholarship awards are disbursed in one-half 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 an in some circumstances subject to criminal prosecution.

## Student Aid Refund Repayment Policy

The formula prescribing the amount 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 Aid Office will determine according to the federal formula 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 aid 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 times the MSU computed refund equals the amount returned to the student. The remainder of the refund will then be distributed according to 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 recieves financial aid and one of the following situations occur: (a) the student is issued a contingency fee card which is not honored by the fund agency involved; (b) the student receives an overpayment due to non-eligibility 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.

## University Placement

Placement services are provided to assist graduating seniors and alumni communicate with prospective employers for full-time, permanent employ-
ment. Services include personal data files, on-campus interviews, listings of employment opportunities, employer information library and assistance in the techniques of interviewing. Registration with Placement is required prior to being referred for employment and should be completed two semesters prior to graduation.

Similar placement services are offered by the Teacher Placement Office. This office serves students in the teacher education program and alumni desiring information concerning job vacancies in education
A branch office of Tennessee Employment Security assists students seeking part-time employment. Attempts are made to place students in part-time jobs which are in keeping with their ultimate career goals.

## STUDENT LIFE

Student Life is one of many components of the university community that combine to offer students a wide variety of learning experiences outside the formal classroom setting. These learning experiences, often classified in terms of co-curricular or student developmental activities, are available through group and individual experiences.

A major facet of student development falls under the administrative responsibility of the Division of Student Educational Services and in particular, the Associate Dean for Student Life. Included in the area of Student Life are Student Organizations, Greek Activities, Commuter Services, New Student Orientation, University Programming, Religious Affairs, Volunteer Services, the University Center, Who's Who, Cheerleaders and PomPon Squad. Information on these and other co-curricular activities may be obtained in the Office of the Associate Dean for Student Life, University Center 419.

Participation in student groups and organizations is beneficial to an individual while a student and in his chosen profession. Participation in student developmental activities supplements formal classroom learning by providing a real life laboratory in which students can grow and develop individual competencies. Students in good academic standing are encouraged to become involved in these activities.

Some organizations, because of their individualized requirements, may necessitate the student's meeting certain academic or other requirements. Invitation to membership, when required, is extended by the organization.

Complete information on the many and varied student developmental activities is available from the Student Handbook and the Student Organizations and Activities Directory. Copies are available at registration or in the Office of the Associate Dean for Student Life. The following
section is a brief description of some of the major activities.

## Student Government

The Student Government Association office is located in the University Center (Suite 410) (454-2051). Through authority delegated to it by the University, the SGA represents student opinion in working with other University components. Elected annually, the SGA is composed of the Executive Branch, which consists of the President, Vice President, Attorney General, Secretary of State, and the Secretary of Campus Affairs; a Senate, which consists of the Speaker and 32 senators; a Judiciary, which consists of the Chief Justice and 9 court Justices.

## Publications

Students write and edit The Helmsman, newspaper ( 4 issues per week); and the DeSoto, University yearbook, under the auspices of the Department of Journalism; The Phoenix, literary magazine sponsored by the Department of English; and the Student Handbook, under the auspices of the Division of Student Educational Services.

## 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 the University 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), InterFaith Council, Jewish Student Union, Latter Day Saint Student Association (Mormon), Marantha Christian Fellowship (Charismatic), Muslim Student Association, Navigators, United Students for Christ, The Way International, Wesley Foundation (United Methodist), Westminister House (Presbyterian).

## Art and Music

The Department of Art sponsors lectures, films, and shows as part of its yearly program. Galleries are located in The Communication and Fine Arts Building.

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 owned and operated. Two state-of-the-art television/film studios also offer students the opportunity to participate in broadcasting quality productions.

## The 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.

## Social Fraternities and Sororities

Sixteen national fraternities and eleven national sororities are active on the Memphis State campus. The University strives to maintain a strong Greek system through coordination of Greek activities provided by the Office of Student Organizations.
Fraternities: Most fraternities maintain chapter houses close to campus to provide living and meeting facilities for fraternity members. Student direction and guidance are provided through the Interfraternity Council and Pan-Hellenic Council. The national fraternities include Alpha Phi Alpha, Kappa Alpha, Kappa Alpha Psi, Kappa Sigma, Lambda Chi Alpha, Omega Psi Phi, Phi Beta Sigma, Phi Gamma Delta, Delta Upsilon, Phi Sigma Kappa, Pi Kappa Alpha, Pi Kappa Phi, Sigma Alpha Epsilon, Sigma Chi, Sigma Phi Epsilon, and Tau Kappa Epsilon.
Sororities: Most sororities maintain suites in the Panhellenic Building located on the corner of Veterans and Patterson. Student direction and guidance are provided through the Panhellenic and PanHellenic Councils. The national sororities include Alpha Gamma Delta, Alpha Delta Pi, Alpha Kappa Alpha, Delta Gamma, Delta Sigma Theta, Delta Zeta, Gamma Phi Beta, Phi Mu, Pi Beta Phi, Sigma Gamma Rho, Sigma Kappa, and Zeta Phi Beta.
Additional information about the Memphis State Greek system can be obtained from the Office of Student Organizations and Greek Affairs (901) 454-2093.

## University Center

The University Center, located in the heart of the campus, is the focal point for activities and events for the University
community. The facility is an integral and vital part of the educational life of the campus, sharing goals of academic and personal development. The Center is an organization and a program designed to encourage students and other members of the community to meet and share interests, talents, ideals in an actionlearning setting.

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, Stero-Listening Rooms, Vending, Copy Machine, Public Phones, and Central Scheduling and Information Area. The Center's continuing goal is the creation of an atmosphere that encourages individual self-development as a concerned, humane citizen and to serve as a unifying force in the life of the University.

## University Programs

University Programs is the principal programming body for the university community. It is composed of students selected and appointed with the purpose of providing social, cultural, recreational and educational activities, and events that appeal to all tastes. University Programs endeavors to develop the individual, broaden his interest, stimulate creativity, encourage display of talents and stress leadership and group interaction. Talent shows, Miss Memphis State, lectures, movies, speakers and tours are just a few of the many activities planned and facilitated by University Programs. For additional information, call 4542035.

## 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 educational 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 excelIent facilities 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. Detailed information regarding programs and events may be
obtained from the various offices within the Physical Education Building.

The H.P.E.R. Complex consists of the Physical Education Building at Spottswood and Echles streets; and the Field House on the eastern border of the main campus. 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 racquetballhandball 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.

## Honor, Recognition, and Professional Organizations

Memphis State University is proud to have many national honor and recognition societies devoted to encouraging high standards of scholarship, leadership, and professional competence. These societies, through their programs and professional activities, provide an additional aspect of student development which would not ordinarily be obtained. Detailed information concerning these societies, including requirements for membership, purposes, and specific activities, can be found in the Student Handbook, from sponsoring university departments and in the Office of Student Organizations, 454-2093.

## Honors and Awards

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& \text { THE COLLEGE OF ARTS } \\
& \text { AND SCIENCES }
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THE BETA BETA BETA AWARD is annually presented to the graduating senior and member of the Society who graduates with the highest grade point average in biology.
THE AMERICAN INSTITUTE OF CHEMISTRY AWARD is presented to the graduating chemistry major who best demonstrates leadership, ability, character and scholastic ability. THE DEPARTMENT OF ENGLISH offers several awards:
a. The Distinguished Scholarship A ward 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. Presented for creative excellence shown by freshman 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 Department of Foreign Languages, awards each year one or more assistantships in France for the teaching of English in secondary schools.
DEPARTMENT OF GEOGRAPHY presents each year the Paul H. Sisco Award to the outstanding senıor geography major. THE DEPARTMENT 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 DEPARTMENT OF PHILOSOPHY OUTSTANDING STUDENT AWARD is presented to that student of philosophy
chosen on the basis of high scholastic achievement. papers written, and performance in senior honors seminars.
THE DEPARTMENT OF POLITICAL SCIENCE presents the Outstanding Student Award each year to the graduating senior majoring in political science who has compiled the 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 originated and conducted by an undergraduate student in psychology.
THE DEPARTMENT OF SOCIOLOGY annually presents The Outstanding Student A ward to the senior student judged to be the outstanding sociology major. Also, the DIVISION OF SOCIAL WORK presents the Graduate with Distinction Award to the graduate who has been selected for dedication. achievement, and potential for professional service.
ALPHA EPSILON DELTA, 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 AWARDS: The student who has attained the highest academic average during his four years of study in each of the following disciplines: Biology, Chemıstry, Geology, Mathematical Sciences, Physics, and Psychology is honored by having his name inscribed on a plaque.

## THE FOGELMAN COLLEGE OF BUSINESS

 AND ECONOMICSTHE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS AWARD, Memphis Chapter, is presented annually 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 UNDERWRITERS annually awards a check and a plaque to the outstanding student in the field of insurance.
SOCIETY FOR ADVANCEMENT OF MANAGEMENT SCHOLAR-
SHIP is annually awarded to that member of SAM who has SHIP is annually awarded to that member of SAM who has
served the society in an exemplary manner and demonstrated served the society in an exemplary manner and demonstrated leadership in the field of management.
THE NATIONAL BUSINESS EDUCATION ASSOCIATION annually 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 Assoclation to the outstanding graduating sentor who has majored in the field of business education.
PHI GAMMA 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 College of Business Adminıstration.
DELTA SIGMA PI, international business fraternity, annually awards ascholarshipkey to the man in The College of Business Administration graduating with the highest academic average in business.

## THE COLLEGE OF COMMUNICATION

 AND FINE ARTSDEAN'S ACADEMIC ACHIEVEMENT AWARD is available to a student majoring in a discipline within the College of Communication and Fine Arts. It recognizes the graduating student with the highest grade point average.
DEAN'S CREATIVE ACHIEVENENT AWARD is based on outStanding creative activity in the areas encompassed by the College of Communication and Fine Arts.
SIGMA DELTA CHI CITATION, Memphis Chapter, annually presents a certificate of achievement to the student chosen as outstanding in the field of journalism.
SOCIETY FOR COLLEGIATE JOURNALISTS annually awards the Medal of Merit for outstanding achievement on campus publications.
SOCIETY OF PROFESSIONAL JOURNALISTS, SIGMA DELTA CHI MARK OF EXCELLENCE AWARDS, Arkansas, Louisiana, Mississippi, West Tennessee Region, annually presents first place awards for Best TV Broadcasting, Best Editorial Car toon, Best Feature Article, and Best Photography Feature. SIGMA ALPHA IOTA COLLEGE HONOR AWARD annually presents an award band on musicianship, scholarship, and general contribution to the Collegiate Chapter
SIGMA ALPHA IOTA HONOR CERTIFICATE is presented annually to the music major graduating with the highest academic average.
PAUL EAHEART MEMPHIS WOODWIND QUINTET SCHOLARSHIP is presented in honor of Paul Eaheart for excellence in wind performance.
NAOMI C. HAIMSOHN AWARD IN CLASSICAL MUSIC COMPOSITION is presented to a student in composition for excellence in composition. The scholarshıp is made avaulable by the Chickasaw Branch of the National League of Penwomen in honor of Mrs. Haimsohn, composer and pianist.
HERMANN PIANO AWARD is presented annually in memory of Professor Herbert Hermann for excellence in piano performance.
LUBRANI CLARINET AWARD, in memory of Professor Frederic Lubrani, is presented for performance ability. general scholarship, service to the Music Department, and potential in the profession.
SMIT COMPOSITION AWARD is presented in memory of Professor Johannes Smit for excellence in composition.

## THE COLLEGE OF EDUCATION

THE DEPARTMENT OF DISTRIBUTIVE EDUCATION OUTSTANDING SENIOR AWARD is presented each year to the graduating senior in the department with the highest academic average.
DECA SERVICE AWARDIs presented annually to the senior majoring in distributive education who has made the most outstanding contribution to the Memphis State Chapter.
ELEANOR MAE FERGUSON AWARD is presented each year to the outstanding junior or senior woman physical education the outstanding junior or senior woman physical education
major who displays strong leadership, outstanding character. high scholarship and an active role in departmental and high scholarship
campus activities.
DEPARTMENT OF FOUNDATIONS OF EDUCATION OUT. STANDING GRADUATE STUDENT AWARD is annually presented to the most outstanding student based on scholarship.
accomplished or planned research, teaching competency or professional involvement, and faculty rating.
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. OUTSTANDING STUDENT IN RECREATION AND PARKS AWARD is presented in recognition of meritorious scholarship. leadership, and service to the Univer sity, the community, and the profession.
HOLIDAY INN HOME ECONOMICS AWARD is presented each year to the graduating senior with the highest academic grade point average in home economics.
DEPARTMENT OF SPECIAL EDUCATION AND REHABILITA. TION OUTSTANDING STUDENT AWARD is annually presented by the Student Council for Exceptional Children to the outstanding student majoring in the department who displays strong leadership, outstanding character, scholarship and an active role in departmental and campus activities.
KAPPA DELTA PI AWARDS: Junior Academic Award is presented to the outstanding junior in The College of Education, Senıor Academic Achievement Award is presented to the outstanding senior enrolled in The College of Education.
MEMPHIS EDUCATION ASSOCIATION AWARD is presented each year to the graduating senuor who, having graduated from the Memphis City Schools System and completed all college level work in a teacher education prograrn at the University, has attained the highest grade point average of the students in this category
HEBER E. RUMBLE, OUTSTANDING STUDENT TEACHER AWARD is presented each year to the student whose performance in student teaching is judged to be the most oustanding
DEAN'S AWARD IN THE COLLEGE OF EDUCATION is presented on the basis of scholarship, professionalism. Ieadership. and service to the College of Education, the University. and/or professional organizations.

## THE HERFF COLLEGE OF ENGINEERING

OUTSTANDING SENIOR AWARDS in the College of Engineering are presented to the outstanding senior in each of the five departments: Civil Engineering. Electrical Engineering, Mechanical Engıneering, Geology, and Engineerıng Technology based on scholarship, leadership and service.
OUTSTANDING STUDENT MEMBER OF IEEE is presented an award by The Institute of Electrical and Electronics Engineers. student chapter
ENGINEERING TECHNOLOGY SOCIETY AWARD is annually presented to the outstanding student by the student chapter. AMERICAN INSTITUTE OF ARCHITECTS presents annually the outstanding achievement award.
ASSOCIATED GENERAL CONTRACTORS AWARD Is presented annually by the student chapter for outstanding achievement. ENGINEERING DEAN'S AWARD is presented annually to the graduating student who has compiled the highest academic achievement in the college.

## UNIVERSITY COLLEGE

DISTINGUISHED SPECIAL PROJECT AWARD is presented to each student whose spectal project has been judged out standing by the Faculty Council of University College

## DEPARTMENT OF AEROSPACE STUDIES

LEGION OF VALOR BRONZE CROSS OF ACHIEVEMENT recognizes one outstanding Air Force ROTC senıor cadet in the Ohio Valley for performance and achievements as an AFROTC cadet.
AMERICAN FIGHTER ACES ASSOCIATION AWARD recognizes the outstanding graduating AFROTC pilot candidate in the southeast based on performance and achievements as an AFROTC cadet and performance in the Flying Instruction Program.
THE PRESIDENT'S AWARD IS PRESENTED annually to the MSU Freshman or Sophomore AFROTC cadet who has demonstrated outstanding attributes of leader ship and high moral character. Selection is made by AFROTC with final approval by the University President.
ANGEL OF THE YEAR AWARD 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 AWARD is presented to the member of Arnold Air Society who has given the most in service to the campus and the community

## SPECIAL AWARDS

MARIA LEONARD SCHOLARSHIP AWARD is presented annually by Alpha Lambda Delta, national scholastic honor society. o the senior member of the society with the highest academic average.
GOLDEN KEY NATIONAL HONOR 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 SCHOLARSHIP AWARD is presented annually to a member of the society who graduates with the highest academic average.
THE INTERFRATERNITY COUNCIL SCHOLARSHIPS of $\$ 200$ each are awarded annually to the pledge/associate from the previous fall or spring semester who attained the highest grade point average; and, to the fraternity member with the highest grade point average over the past two consecutive semesters.
THE PANHELLENIC COUNCIL 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
initiation fee is awarded to the fall semester pledge who attanned the highest average for the semester
WOMEN'S INTERCOLLEGIATE ATHLETICS SCHOLAR AWARD is presented annually to the woman athlete who has main tained the highest grade point average while at the University THE ELMA ROANE OUTSTANDING WOMAN ATHLETE AWARD is presented to the junior or senior woman athlete who best exemplifies the following qualities: drive, enthusiasm, determination, concern for others, the love for athletics, asm, determination, concern inor others, the love sor athietics, in all aspects of life.
CAMPUS RECREATION AND INTRAMURALS AWARDS are presented annually to the intramural Greek, intramural Indepen-
dent Resident, Panhellenic Manager of the Year; and to the Outstanding Official of the Year who shows leadership and interest in the intramural program.
THE STUDENT GOVERNMENT ASSOCIATION presents at each commencement convocation a plaque to the graduating senior who has attained the highest cumulative average.

## STUDENT HOUSING

The University operates four residence halls for men and six residence halls for women. No one is required to live in a residence hall, and students who wish to do so should make application at the earliest possible date. Application for housing must be made independently of the application for admission to the University, and forms may be obtained from the Residence Life Office. Completed applications should be returned to the Residence Life Office. A request form for additional information is found in the back of the Bulletin with the application form. For information concerning residence hall rents and deposits see section

## 3, Fees and Charges

APPLICATION PROCEDURES: Applications for resident 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 ASSIGNMENT, OR TO TERMINATE A RESIDENT'S OCCUPANCY, FOR JUSTIFIABLE CAUSE.

ELIGIBILITY: The University requires no one to live in a residence hall. To be eligible for occupancy in a residence hall, an applicant must be unmarried, accepted as a student at the University and enrolled for a minimum of 12 undergraduate or 6 graduate semester hours of credit at the University by the close of registration period for which housing is requested ( 6 and 3 respectively for summer sessions). Permission for married and/or part-time students to live in a residence hall must be requested in writing at the time of filing the application. Such applicants should not assume that their requests have been approved until
written acknowigement is received. If a student ceases to attend classes for any reason, he may be asked to withdraw from the University. He must vacate his residence hall accommodation within 24 hours as a condition of his withdrawal.

## HANDICAPPED STUDENT SERVICES

The Handicapped Student Service Program provides specialized support services aimed at helping students have full access to the educational programs, services and activities available at Memphis State University. Services include:
preregistration planning and orientation
preferential scheduling and registration
coordination of modified housing facilities

## attendant referral

arranging readers, tutors, notetakers, interpreters
assistance in securing special materials, equipment and adaptive aids
assistance with wheelchair maintenance
Handi-Van transporation
consultation with faculty regarding academic adaptations
liasion with state rehabilitation agencies.

For more specific information and assistance, all handicapped applicants and students should contact the Director of Handicapped Student Services. Telephone and TTY (901) 454-2880.

## 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. DD 214 (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 the 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 semester hours is full-time 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.

## CERTIFICATION REMINDERS

1. Register with Veterans Services every semester by completing a Veteran Data Sheet and Certification Requirement.
2. Report credit allowed for prior training in cooperatıon with your advisor by completing the form, Request for Reevaluation of Prior Credit. Forms are available from Veterans Services Office.
3. Inform Veterans Services Office of any changes in: major and degree pursued. address, marital status, number of dependents claimed.
4. After registering, report immediately all changes in class scheduling including: adds. drops, section changes, cancelled courses, withdrawal.
5. Obtain a degree posting sheet (formal degree plan) from advisor, furnish a copy to the Veterans Services Office and keep a copy for personal file.
Contact the Veterans Services Office for more information on eligibility requirements and monthly pay rates.

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

## OTHER INFORMATION

## 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.

## The Student Identification Card

The University issues to each student an identification card which bears his photograph and social security number. 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.
If an ID 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 his card.

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

Fraudulent use of the ID 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.

## 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 acquainting himself with the campus traffic and parking regulations, copies of which are available in the Security Office.

## Bookstore

The University Bôokstore, located in the University Center, is owned and operated by the University for the convenience of its students, faculty, staff, and their guests. 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, and gift items; it is the only source for purchase of the official Memphis State University class ring.

## Post Office

The University Post Office, located on the first floor of Jones Hall, 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.

## National Alumni Association

The Memphis State University Alumni Association is the main communication link to the University for graduates and former students. Emphasizing its role as a service organization, the National Alumni Association sponsors such events as: Women's Day, Tiger Uproars (pep rallies), an international "Travelin Tigers" tour program, group insurance, and member loan (direct mail loans to alumni). Alumni publications include the Memphis State Alumni Review (quarterly magazine sent to all contributors to the Annual Fund, coordinated by the University Development Office) and the Columns tabloid, mailed quarterly to all alumni. The National Alumni Association also offers special events for students and sponsors the Student Ambassador Board. The MSU Alumni Center, located on the corner of Normal and Spottswood streets on campus, contains the offices of the Natronal Alumni Association staff. (901) 454-2701.

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## 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 Bulletin himself and fulfilling all of the requirements therein for his particular goal. It is expected that by no later than the time a student has attained senior standing he will consult with the dean of his college in regard to the fulfilling of requirements for his chosen degree.

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 Bulletin. 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 his official registration material. Registration is not complete until all fees for the semester have been paid.

## APPEALS TO UNIVERSITY POLICY

The University recognizes that in the application of policies to individual situations extenuating circumstances may occur; therefore, the student has a right to appeal University policies. If the student feels that his particular circumstances warrant such an appeal, he must originate the request for appeal in the university office responsible for the administration of the policy.

## CLASS ATTENDANCE

Although students at Memphis State University may be engaged in a variety of activities, curricular and extra-curricular, on and off campus, they are expected to give first consideration to their scholastic obligations. When they register for classes they make a commitment to and assume a responsibility for their academic success. They are expected, therefore, to attend classes promptly and regularly, to participate appropriately in these classes, to seek out all the help which the University makes available to them, to complete all course requirements, and to perform to the best of their abilities.

The importance of prompt and regular class attendance cannot be overemphasized. Although class.attendance as such is used in computing grades only under the conditions stated in the following paragraph, students must understand that their academic success will be determined by the way they perform on all measuring instruments - tests, daily quizzes, class participation, in-class essays, class reports, etc. - and that failure to attend and participate in class (or to meet similar responsibilities in laboratories, intern programs, and the like) will undoubtedly affect that performance. Absence from class is not a valid excuse for failure to complete assignments or for tardiness in completing them; permission to make up assignments or to turn them in late can be given only by the teacher of the class upon specific request; students should not assume that such permission is granted routinely.

Class attendance as such is not used in computing grades except in those courses for which teachers request specific exemptions. Such special attendance policies are valid only (1) if the department chairman annually approves them in writing prior to the first class meeting with a copy of that approval forwarded for information to the dean and (2) if a full statement of the policy is presented to all students present at the first and second meetings of the class. In the case of courses which have multiple sections and multiple teachers, the chairman's approval permits all teachers to use class attendance in computing grades. Lists of exemptions are kept in the dean's office.

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 Courses

After the official registration period is over, the student may make adjustments in his schedule through the process of
adding and/or dropping courses. Courses may be added only during the first five days of classes (three days in the six-week summer term and four days during the extended term). 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 Bulletin). 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 section 3, 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. The student must complete an application for withdrawal and present for invalidation his student identification card at the time of withdrawal. Failure to officially withdraw will result in the student's receiving grades of F for the courses in which he 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 (in the front of this Bulletin) for that term (the date on which one-half of the term is completed). Exceptions are made to this policy only in cases of such extreme circumstances as serious personal illness, 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 table below.

## Classification Semester Hours

| Freshman $0-24$ <br> Sophomore $25-54$ <br> Junior $55-84$ <br> Senior 85 or more <br> Special Students not working on a degree <br> Students who have completed the <br> required number of hours to be classified   |
| :--- | :--- | 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 he is carrying a maximum credit hour load.

## ACADEMIC FULL-TIME CLASSIFICATION AND MAXIMUM LOAD

| Term | Minimum <br> Hours | Maximum |
| :--- | :---: | :---: |
| Hours |  |  |

*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 his college, schedule a maximum of twentyone 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 summer terms 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

## Grades

At 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 his class standing and his 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 his 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 | Quallty <br> Points | Grade | Quality <br> Points |
| :--- | :---: | :--- | :---: |
| A, Excellent | 4 | T (See below) | 0 |
| B, Good | 3 | CR, Credit | 0 |
| C, Satisfac- | 2 | DP. Drop | 0 |
| tory | 1 | W. Withdrew | 0 |
| D. Poor | 0 | AD, Audit | 0 |
| F, Failure | 0 | *S, Satisfactory | 0 |
| I, Incom- |  |  |  |
| plete |  | U., Unsatisfac- <br> tory | 0 |

*IP (In Progress) is sometimes given for courses graded on S/U basis. The S/U grade is limited to certain types of courses such as practicums, practice teaching, etc. It is 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 his 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 his instructor. Unless the student completes the requirements for removal of " $I$ " 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 absence from the campus makes it impossible for the student to remove the incomplete. 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 faculty Committee on Entrance and Credits. 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 his 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 "I" grade if the faculty member feels that the work can be completed in 45 days. (If an " " "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. Award a " $T$ " 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 linitation 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 samie course.

The student's quality point average will be computed as follows:

| Attempt | Grade(s) Included <br> In Computation |
| :---: | :--- |
| 1 st | Original grade earned <br> 2nd <br> 3rd |
| Only grade in 2nd attempt |  |
| subsequent | Only grade in 3rd attempt <br> Grade earned in 3rd <br> attempt <br> averaged with grade(s) <br> earned in ALL subsequent <br> 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. A student auditing a course will receive "audit" on his transcript only if in the judgment of the instructor he has 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.

## Senior Citizen/Handicapped Audit and Credit Courses

Persons suffering from a permanent disability which totally incapacitates such persons from working at an occupation which brings them an income, and persons sixty (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 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 sixty-five (65) years of age or older during the semester in which such persons begin classes, and who are domiciled in Tennessee, may enroll for courses for credit at the cost of $\$ 17.50$ per undergraduate credit hours and $\$ 24$ per graduate credit hour, not to exceed $\$ 75$ 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, or telephone 454-2671.

## Credit-No-Credit Courses

The University, wishing to encourage mature students to broaden their range of interest without jeopardizing their grades, allows any student who has earned at least 60 semester hours with a minimum grade point average of 3.0 to enroll in credit-no-credit courses as determined by his 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 section 6, 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 he were 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 his graduation. These hours will not be used in the computation of his quality point average.

## Student Grade Appeal Procedure

This appeal procedure is designed to provide any undergraduate or graduate student at Memphis State University with a clearly defined avenue for appealing the assignment of a course grade which he 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 his complaint and in his request for a hearing. If any party fails to pursue timely any
step of the procedure, the disposition of the student's complaint made in the last previous step shall be final. The procedure will be terminated at the level at which the instructor and the student are brought into agreement on the appealed grade. All correspondence and records will be retained in the office in which the complaint is finally resolved.
Step 1 The student shall first consult with the instructor in an effort to provide a satisfactory resolution of his complaint. In the event the student cannot schedule a meeting with the instructor, he 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 his 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 (including the pre-summer term) will constitute a single term. (Students enrolled in courses during any summer term shall have fortyfive 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 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 himself, the written complaint of the student shall be submitted to the dean of the college.
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 request in writing that the chairman forward his complaint to the dean. The chairman must forward the student's complaint to the dean within five days. The chairman will provide the dean with a copy of all correspondence and records pertaining to the complaint.
The dean may utilize any resources available to his office to resolve the grade conflict within a fifteen-day period. The dean's decision in this matter will be formally announced at a meeting of the dean, the chairman, the instructor, and the student. 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 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 committe shall make the final decision unless there is an appeal of the committee's decision, by etther 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 rase 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, two 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 his 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 satisfacto-ry-unsatisfactory 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; he has thus accumulated quality points in the amount of $12,9,6,0,0$, for a total of 27. In computing his 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

A student is in good standing so long as his quality point average is equal to the minimum cumulative QPA 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 QPA of 2.0. Any time that a student's cumulative QPA falls below this 2.0, he receives a warning on his grade report and he should consult immediately with his academic advisor.

## Academic Probation

A student will be placed on academic probation at the completion of any regular semester or summer session when his 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 |
| 68.00 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 his next term of enrollment, fails to raise his QPA to at least the required minimum in 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
emester or summer session during which he earns a term average of 2.00 .
A student who incurs a first suspension nust remain out of the University a minimum of one regular term (i.e., fall or spring). A student suspended for the first ime at the completion of the spring femester will not be allowed to enroll in he subsequent fall semester, after emaining out the summer session. A student who incurs a second suspension must remain out of the University one full calendar year. Three or more suspensions result in an indefinite suspension. If there is adequate evidence of the student's ability, interest, maturity and motivation, he may be reinstated by the Academic Status and Retention Office or the Retention Appeals Committee. The office is located in Room 167 of the 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 section 4, Student Life and Financial Aid, and in the descriptions of the various honors programs.

## The Dean's List

The Dean's List is composed of those students who complete a minimum of fifteen semester hours with a quality point average of at least 3.4 for the semester.

## 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 | $3.2500-3.4999$ |
| :--- | :--- |
| magna 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 QPA used for determining graduation with distinction be higher than that earned on courses taken at Memphis State University.

A student who already holds a baccalaureate 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 this 1981-82 Bulletin or the complete set in the Bulletin governing the degree requirements for the student's graduation may be used to determine honors.

## 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
Gamma Theta Upsilon, a national honorary society for geography students
Kappa Delta Pi, a national honor society in education
Omicron Delta Kappa, the National Leadership and Scholarship Honor Society
Phi Eta Sigma, a national freshman honor society
Phi Kappa Phi, a national interdisciplinary honor society
Pi Sigma Alpha, the national honor society in political science
Psi Chi, the national honor society in psychology
Sigma Delta Pi, the national Spanish honor society
Tau Beta Pi, a national engineering academic honor society

## ADDITIONAL MEANS OF EARNING CREDIT

## 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 Office of Admissions and Records.

## Transfer Credit

In order for completed additional course work to be transferred from another university and recorded on the student's permanent record, the student must request that an evaluation of the additional course work be completed by the Transfer Affairs section of the Admissions Office. After the student has been admitted as a regular undergraduate, whether he is a beginning freshman or a transfer student, it is recommended that he consult with his advisor or the Transfer Affairs section of the Admissions Office if he anticipates enrolling at another college or university for the purpose of transferring credit to Memphis State University.
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 (for official definition of "regular undergraduate," see section 2, Admission to the University), 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 he is a beginning freshman or a transfer student, he will not be given credit applicable to any Memphis State University degree for subsequent correspondence or extension courses unless he has obtained, prior to his enrollment in such courses, written permission from the dean of the college in which he is majoring.

No student is permitted to enroll for correspondence or extension courses while he is 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 restric-
tion 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 section 6, 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-by-examination, 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.

## Departmental Examinations

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 extension-may 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.
3. The form of the examination, the method of administering it, and the time of examination are left to the discretion of college 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 he should be placed. A student taking the proficiency test may apply immediately for the hours of credit warranted by the test score. He must make written application to the chairman of the department and make payment of appropriate fees for such credit to be recorded.
2. A student may enroll in a course at the level for which he feels previous training qualifies him. In the Department of Foreign Languages, recording of credit for the lower numbered course may be requested by the student upon completion of the course in which he was enrolled and is contingent upon his having earned 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 section 3, Fees and Charges.

## University Credit for Experiential Learning

Students seeking degrees in the College of Communication and Fine Arts, the Herff College of Engineering (Trade and Industrial Vocational Technical Education majors only), and the University College may be granted credit for collegelevel knowledge and understanding gained from work experience, life experience, or for certain non-traditional 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 Section 3, Fees and Charges.


## DEGREES OFFERED

The degrees conferred by Memphis State University are offered through the College of Arts and Sciences, The Fogelman College of Business and Economics, The College of Communication and Fine Arts, The College of Education, The Herff College of Engineering, The University College, The Department of Nursing, The Cecil C. Humphreys School of Law, and The Graduate School, as follow:
The College of Arts and Sciences: Bachelor of Arts, Bachelor of Science, Bachelor of Science in Chemistry, Bachelor of Science in Medical Technology.
The Fogelman College of Business and Economics: Bachelor of Business Administration
The College of Communication and Fine Arts: Bachelor of Fine Arts, Bachelor of Arts, Bachelor of Music.
The College of Education: Bachelor of Science in Education, Bachelor of Science in Home Economics, Bachelor of Music Education.
The Herff College of Engineering: Bachelor of Science in Civil Engineering, Bachelor of Science in Electrical Engineering, Bachelor of Science in Mechanical Engineering, Bachelor of Science in Engineering Technology, Bachelor of Science in Technology, Bachelor of Science in Geology.
The University College: Bachelor of Liberal Studies, Bachelor of Professional Studies.
The Graduate School: Doctor of Philosophy, Doctor of Education, Doctor of Musical Arts, Doctor of Business Administration, Specialist in Education, Master of Arts, Master of Arts in Teaching, Master of Business Administration, Master of City and Regional Planning, Master of Education, Master of Fine Arts, Master of Music, Master of Public Administration, Master of Science
The Cecil C. Humphreys School of Law: Juris Doctor.
The Department of Nursing: Bachelor of Science in Nursing.

Courses required for all baccalaureate degrees are outlined in the section which follows; specific requirements for the individual degrees will be found in section 7, Colleges and Degree Programs. Requirements for the Juris Doctor degree will be found in the Bulletin of The School of Law; requirements for graduate degrees will be found in the Bulletin of The Graduate School.

## GENERAL REQUIREMENTS

The following have been established as minimum requirements by University for all undergraduate degrees offered. In addition, the student must meet the
requirements for his 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, and any two of the following: English 2101, 2102 , $2103,2104,2105,2106$ or their equivalents. These two sequences must be scheduled in consecutive semesters through the freshman and sophomore years or until completed. English 1101 and 1102 must be taken in sequence; no credit will be allowed for English 1102 until 1101 has been completed successfully.

Every student at Memphis State is required to demonstrate his proficiency in English by making a grade of Cor better in English 1101 and 1102 (or their equivalents).

## 2. History

(6 semester hours.) All students must complete successfully History 2601 and 2602 , or their equivalents. (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. 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 his 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 his college residency. The student may select the activity courses of his choice from the Department of Health, Physical Education and Recreation, or any 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.

## 7. 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.

## 8. 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 his degree. (A student transferring credts from a two-year collegiate institution must complete, as a requirement for the paccalaureate degree, a minimum of sixy semester hours in an accredited senior nstitution.) In addition, the student must meet the residence requirements for his -pecific degree as established by the college in which it is offered. Exceptions o residence requirements can be authoized by the appropriate dean.
Residence requirements for specific Jegrees within each college may be ound in section 7, Colleges and Degree Frograms. For more details, the student should inquire in the office of the dean of the appropriate college.

## 9. 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 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.

## PRE-PROFESSIONAL DEGREE PROGRAM

A student completing specified undergraduate work before entering medical, dental, pharmacy, or law 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 minımum 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 his college of his intentions no later than the beginning of his sophomore year and should, with the guidance of his advisor, plan his program at that time.

## REQUIREMENTS FOR TEACHER CERTIFICATION

An undergraduate student can receive certification to teach in the elementary or secondary schools of Tennessee by completing all degree requirements in one of the following programs:

1. For programs leading to full certification in all areas except secondary, the student must enroll in the College of Education. These programs will lead to a Bachelor of Science in Education degree.
2. For programs leading to full certification at the secondary level, the student may enroll either (a) in the College of Education or (b) in the College that offers a major in a specific subject for which certification is desired.
a. College of Education: The student must complete one or more endorsement areas and all other degree requirements outlined for the Bachelor of Science in Education. Such a program will lead to a Bachelor of Science in Education degree or a Bachelor of Music Education degree.
b. Other Colleges: The student must complete the major program and all degree requirements of the college in which he is officially enrolled. In addition, he must complete requirements for a minor in Secondary Education, consisting of General Education ( 45 semester hours), Professional Education (30-33 semester hours) and a major endor sement in one specific subject. The requirements are listed in Sections I, II, and V of the description of the Bachelor of Science in Education degree. Such a program will lead to a degree designated by the college in which the degree is taken.
A student in any of the programs described above must (1) file an application to the teacher education program in Room 215, College of Education; (2) fulfill the requirements and application proce-
dures for the student teaching program; (3) register in the Teacher Certification and Placement Office, and (4) have a cumulative QPA in all courses of at least 2.25 and a minimum QPA of 2.25 in all Professional Education courses, required or elective, and in the endorsement area.

Graduate, special, and transfer students who wish certification should confer with the Director of Certification concerning their individual requirements, particularly the credit to be allowed on courses taken elsewhere or at an earlier time.

## BULLETIN APPLICABILITY

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 bulletin applies. A student may complete the requirements for his initial degree under the provisions of any valid MSU bulletin provided the effective date of that bulletin is not earlier than his initial admission to MSU or some other accredited institution of higher learning. (This issue of the bulletin is valid through summer of 1989).

## 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 bulletin or any other valid bulletin 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 bulletin regulations applicable to transfer students.

If a student completes the requirements from a valid bulletin 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.


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# The College of Arts and Sciences 

JOHN H. WAKELEY, Ph.D., Dean

Room 217, 219, Mitchell Hall

| ACADEMIC PROGRAMS |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentration 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) Vertebrate Zoology | Bachelor of Arts (B.A.) 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 |  | Bachelor of Arts (B.A.) |
| $\dagger$ Foreign Languages | Foreign Languages <br> (With Single <br> language concentration <br> from the first <br> five or multiple <br> 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 | Geography | (1) Cartography <br> (2) Environmental and Earth Science <br> (3) Geography <br> (4) Human Geography <br> (5) Urban Geography | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| 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.) 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 | Comparative Liter ature |  | Bachelor of Arts (B.A.) |
|  | Medical Technology |  | Bachelor of Science in Medical Technology (B.S.M.T.) |

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## 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 encour age 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 pre-professional 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 fourteen departments: Anthropology, Biology, Chemistry, Criminal Justice, English, Foreign Languages, Geography, 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 fourteen 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.
NATURAL SCIENCES: biology, chemistry, geology (administered by The Herff College of Engineering), physical geography, mathematics, physics.
SOCIAL SCIENCES: anthropology, criminal justice, economics (administered by The Fogelman College of Business and Economics), geography (other than physical), history, philosophy, political science, psychology, sociology.

## Lower and Upper Divisions

The Lower Division comprises the freshman and sophomore years, the first four semesters of undergraduate work; courses in the lower division are numbered from 1000 through 2999. The Upper Division comprises the junior and senior years, the last four semesters of undergraduate work; courses offered in the Upper Division are numbered above 2999.

## The Institute of Governmental Studies and Research

## (Department of Political Science)

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 and consulting assistance to governmental agencies at the local, regional, state, national, and international levels. The focus of the Institute is upon public decision makers. Working directly with the faculty of the Department of Political Science and with the availability of the faculty resources of other departments, the Institute undertakes functions of research and service germane to public policy and governmental affairs. The functions of the Institute include the following:
I. Research: The Institute sponsors public policy research in order to develop and disseminate new knowledge related to both theory and practice. It enters into contracts for "institutional" research in addition to encouraging members of the faculty to engage in individual research. Research findings are published in the Institute's Public Affairs Forum, and in periodic monographs.
II. Consulting, advisory, and technical assistance: The Institute renders services to a wide spectrum of deci-sion-makers, including private citizens and organizations as well as officials and government agencies, on a contractual basis. These activities also help to relate teaching and research to the present and future needs of public institutions and provide expanded research opportunities for faculty and students.
III. Community Service: The Institute is actively engaged in community service by conducting post-graduate and profes-
sional training programs, institutes, and seminars for those already in public service. Of special interest to the Institute is the academic program which prepares students for employment in public service by placing them as interns with governmental agencies. This affords practical experience in the area of public service to graduate students, especially those interested in a public service career in Tennessee.

## Chucalissa Indian Village and Museum <br> (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, west of Highway 61 South, off Mitchell Road. The facility is open to the public throughout the year except during Christmas-New Year and University holidays.

## ADMISSION

Requirements for admission to The College of Arts and Sciences are those set up for the University as a whole; see section 2, Admission to the University.

## RESIDENCE REQUIREMENTS

University residence requirements are explained in detail in section 6, Graduation from the University. A transfer student in The College of Arts and Sciences must earn at least 6 semester hours in residence in his major subject and at least 3 semester hours in his 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 edu-
cation, be granted a baccalaureate degree from Memphis State University, provided that the requirements set forth in the pre-professional 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 for their pre-law training are encouraged to enter immediately one of the degree programs offered by the college.

## 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. Detailed certification requirements are outlined under Requirements for Teacher Certification. An application to enter the teacher education program must be filed with the College of Education General Advisor, Room 215, The College of Education.

## 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 his training qualifies him. He can best determine this initial course 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.) 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 section 3, Fees and Charges. If he chooses not to take the placement test, he may initially enroll in any course above the beginning one and upon completing it with a grade of ' C ' or better apply for credit for the preceding courses. In either case, he must make written application to the chairman of the Department of Foreign Languages (application forms are available in the Foreign Language office). 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: Lowerdivision credit in the native language will be given when he has demonstrated the English proficiency required for graduation (see section 6, Graduation from the University, for details), and has proven his proficiency in the native language to the satisfaction of the Department of Foreign Languages. He then must make written application to the chairman of the Department of Foreign Languages.

## 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. No more than 18 semester hours may be taken outside The College of Arts and Sciences except for courses required for either (1) a minor or (2) teacher certification, but not both; the required or optional courses included in the degree requirements are not a part of these 18 semester hours. Detailed requirements are as follows:
Engllsh: ENGL 1101, 1102 with a minımumgrade of $C$; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106.
Forelgn Language: 12 semester hours, or the equivalent, in one foreign language.
History: HIST 2601, 2602.
Natural Sclence: 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 1200,1600 ; CHEM 1051 , 1052; or CHEM 1111, 1112, or PSCI 1031, 1032; GEOG 1101, 1102; GEOL 1101, 1201 (not more than two courses may be taken in geography 1111,1112 , or 1811,1812 , or 2111,2112 , or $2511,2512$.
Soclal Sclence: 15 semester hours with no more than 6 semester hours in a single discipline. Courses from which 1200 or 1400 selected are ANTH 1100 or 1300 , and ANTH 1200 or 1400; CJUS 1100; ECON 1010, 2110,2120 G 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.

Mathematics/Phillosophy: 9 semester hours as follow 3 of mathematics plus 3 of philosophy plus 3 of either. The following courses are acceptable. MATH 1181, 1182, 1203 or $1211 ; 1212,1312$ 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.

Physical Education: for details see section 6, Graduation 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 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, 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. No more than 18 semester hours may be taken outside The College of Arts and Sciences except for courses required for either (1) a minor or (2) teacher certification, but not both; the required or optional courses included in the degree requirements are not a part of these 18 semester hours. Detailed requirements are as follows:
Engllsh: ENGL 1101, 1102 with a minimum grade of C; and two of the following 2101, 2102, 2103, 2104, 2105, 2106
Forelgn Language: 12 semester hours, or the equivalent, in one foreign language.
History: HIST 2601, 2602.
Mathematics: 6 semester hours selected from the following MATH 1181, 1182,1203 or 1211, 1212, 1312 or 1321 1401, 1402, 2291, 2321, 2322, 2401, 2402, 2581.
Natural Sclence: One of the following two-semester sequences outside the major field: BIOL 1200, 1600; CHEM
1051,1052 ; CHEM 1111, 1112; GEOG 1101,1102 ; GEOL 1051, 1052; CHEM 1111, 1112; GEOG 1101, 1102; GEOL 1101, 1201; PHYS 1111, 1112; or 1811, 1812; or 2111, 2112, or $2511,2512$.
Soclal Sclence: 12 semester hours from the following with no 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, 1101,2301, 2501: PSYC 1101, 1102 ; SOCI 1111,1112 ; no more than 6 hours from the following courses: JOUR 1700; COMM 1781 1782
FIne Arts: Two of the following courses: ART 1101; MUHL 1101; THEA 1551.
Physical Educatlon: for details see section 6, Graduation 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 raduation, at least 45 semester hours must be in courses from the Upper Division. No more than 18 semester hours may be in courses outside The College of arts and Sciences except for courses required for teacher certification. The equired or optional courses included in the degree requirements are not a part of these 18 semester hours. Detailed requirements are as follow:
Engiish: ENGL 1101, 1102 with a minimumgrade of C, and two of the following: 2101. 2102, 2103, 2104, 2105, 2106. Foreign Language: GERM 1101, 1102, 2201, and 2203. History: HIST 2601. 2602.
Mathematics: MATH 1212, 1321, 2321, 2322.
Physics: PHYS 2511, 2512, or 2111,2112 (by permission). Chemistry: CHEM 1111, 1112, 3201, 3211, 3301, 3303. $3311,3312,3402,3411,3412,3604,4111,49911$, and
seven additional semester hours in senior chemistry seven additional semester hours in senior chemistry courses. No more than three credit hours of research may be counted toward the chemistry requirements.
Social Sciences: Three semester hours from one and six semester hours from another of the following areas: anthropology, economics, geography (excluding earth sclence courses and GEOG 3501,3502, and 4510), history (excludpsychology, and sociology.
Fine Arts: One of the following courses: ART 1101; MUHL 1101; THEA 1551
Physical Education: for detalls see section 6, Graduation from the University. (NOTE: The College of Arts and Sciences accepts a maximum of four semester hours in physical education activity courses toward the fulfiliment 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. Should a student decide to enter one of these schools after completing successfully the preparatory curriculum, he should apply directly to the school of his choice nine to twelve months in advance of the time he wishes to enter. After the completion of his clinical year he 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:

Foreign Language: 6 semester hours in one language
HIST 2601, 2602
PSYC 1101 or SOCI 1111 or PHIL 1111
PSYC 1102
MATH 1212
BIOL 1600, 2000, 3070, 3500, 3730, 3800, 4440
CHEM 1111, 1112, 3201, 3211, 3301, 3302, 3311, 3312.
PHYS 2111, 2112
Two of the following courses: ART 1101, MUHL 1101, THEA 1551
Physical Education: see section 6, Graduation from the University. (NOTE: The College of Arts and Sciences accepts a maximum of four semester hours in physical education activity counts.)
ment
(Courses strongly recommended are. PSYC 2301, BIOL 4444, 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 pre-professional degree program. Only those students who enroll in the Schools of Medical Technology of the Baptist Memorial Hospital, the Methodist Hospital, or St. Francis Hospital, all located in Memphis, can qualify for the degree of Bachelor of Science in Medical Technology from Memphis State University.

## 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 minimumgrade 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 him classification as a major or minor in the discipline concerned; he 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, he may require additional work, the repetition of courses, or other evidences of acceptable scholarship.

## 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 must 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 at least junior standing, (d) have completed successfully Anthropology 1100 or 1300,1200 or 1400 , and one upper-division anthropology course, (e) maintained a cumulative grade point average of at least 3.00 in overall studies, (f) maintained a cumulative grade point average of at least 3.25 in anthropology. (g) completion of four honors
courses in anthropology (at least one of which must be an independent study culminating in a research paper / thesis or research report) and a minimum of six hours in honors courses outside anthropology. 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 Anthropology. "Moreover, the student's diploma and the record at Memphis State University will reflect this. Details of the program are available at the Department of Anthropology office.

## BIOLOGY

The Major: 36 semester hours in biology courses, including BIOL 1200, 1600, 2000, 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 1200 and BIOL 1600 shall be required before enrolling in any upper division course which is acceptable for a major.
a. 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.
b. MICROBIOLOGY: BIOL 3500, 3560; two courses chosen from 4440, 4444, 4460, 4560; and upper division hours in biology (chosen in conference with the advisor) to bring the total semester hours in biology to 36.
c. INVERTEBRATE ZOOLOGY OR ENTOMOLOGY: 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.
d. VERTEBRATE ZOOLOGY: BIOL 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 1200 and 1600), 7 of which must be upper division hours. Completion of both BIOL 1200 and 1600 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 below are for majors and minors for the Bachelor of Arts or Bachelor of Science degrees; for detailed requirements for the Bachelor of Science in Chemistry, a professional degree, see degree requirements described earlier in this section.)

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 1212, 1321 , and two of the following courses: MATH 2321, 2322, 4611, and 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 who plan 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 (or PHYS 2111, 2112); and
additional upper division hours in chemistry and/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.

## COMPARATIVE LITERATURE

Comparative Literature is an interdepartmental program focusing on international literary relations and critical theory, offered jointly by the departments of Engligh and Foreign Languages. Under the guidance of a Comparative Literature Program advisor, students pursuing a major or a minor in this discipline develop a coherent program of study by choosing courses from the two departments.
The Major
12 lower division hours or equivalent proficiency in at least one foreign language; a minimum of 24 upper division semester hours, including COLI 4400 , so arranged as to provide a concentration in two literatures. One of these literatures will be American or English; the other will be a foreign language. Students are expected to devote some portion of their program to comparative study of the interrelations of their literary specialties.

## The Minor:

12 lower division hours or equivalent proficiency in one foreign language; a minimum of 15 semester hours in upper division literature courses, including COLI 4400 .
See the upper division literature course listings for English and Foreign Languages.

## COMPUTER SCIENCE

The Major: 58 to 60 semester hours consisting of MATH 1321, 2321, 2701, 4241, 4613; COMP 1000, 2010, 3230, 3420, 4040, 4150, 4160, 4270 and an elective sequence which is a coherent package of $17-19$ hours of comput-er-oriented courses designed by the student and his 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 B.S. degree. This major is offered through the Department of Mathematical Sciences.

## 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 requirements 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 procedure is available in the Criminal Justice Department office.

## ECONOMICS

The Major: 30 semester hours, including ECON 1010 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 B 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. Thosestudents who complete the program 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); 9-12 hours in one of the following areas to be selected with the approval of an adviser (British 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 areas and assist students in developing an appropriate program.
The Minor: 12 upper division semester hours in English.
NOTE: Students who wish to satisfy the requirements for both the English major and endorsement to teach English in high school should consult the certification requirements listed in the College of Education section of this Bulletin.
Students who intend to major in English are strongly advised to take ENGL 2101 and 2102.
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 British and American literature and of modern language theory.

## Honors Program:

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 if 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.
B. 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 threelanguage concentrations require prior consultation with and approval of the department 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.
NOTE: With the consent of the International Business advisor and an advisor in the Foreign Languages department, Foreign Languages may also be a collateral major for the B.B.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 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 Business and Economics section are all upper divisionn and require corresponding lower division courses. Therefore, a minor will include, normally. 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 B, below
A. Courses numbered 1101, 1102, 2201, and either 2202 or 2203 (or their equivalents) in the foreign language 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 fore,gn language concentration or a collateral major outside the Department of Foreign Languages.

## GEOGRAPHY

The Major: 31 semester hours in geography courses including one course from each of the core subject areas for a total of 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)
d. Cartography: GEOG 3502 or 4501 (3)

Concentrations:
a. GEOGRAPHY: 18 semester hours of geography with a minimum of 12 upper division
hours.
b. 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, 4211, 4231 , and 4251 .
c. CARTOGRAPHY: 18 semester hours of geography with a minimum of 12 upper division hours selected from GEOG $3501,3502,4501,4502$, $4510,4511,4521$, and 4531 .
d. URBAN GEOGRAPHY: 18 semester hours of geography with a minimum of 12 upper division hours selected from GEOG 3430, 3451, 4201, 4431, 4434, and 4531.
e. HUMAN GEOGRAPHY: 18 semester hours of geography with a minimum of 12 upper division hours selected from GEOG 3221, 3430, 3501, 4251, 4421, 4442, 4443, and 4453.
The Minor: 20 semester hours in geography courses, at least 9 of which must be upper division hours.

## 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 required for the major, a maximum of 12 may be taken in any one field (United States, Latin American. Ancient/ Byzantine, European, Russian, Far Eastern, African).
The Minor: 24 semester hours in history courses, including HIST $1301,1302,2601,2602$, and 12 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 B.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.
(a) MATHEMATICS: MATH 4350; three of the following courses-MATH 4261, 4351, 4361 and 4411 ; and 9 upper division semester hours of electives in the mathematical sciences.
(b) APPLIED MATHEMATICS: MATH 3391, 4350 , 4391, 4392; and 9 upper division semester hours of electives in the mathematical sciences.
(c) STATISTICS: MATH 4611, 4612, 4613, 4631, COMP 4001; and 6 upper division semester hours of electives in the mathematical sciences.
The Minor: 18 semester hours in mathematical science courses, including MATH 1321, 2321, and 2322; or 6 upper division semester hours in courses in mathematical sciences.
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 concerning combination undergraduate-graduate students as set forth on page five of Policies of the Graduate School) regardless of the formal course prerequisites. The second two years of the honors program are thus characterized by a 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 minimum of 21 hours of upper-division courses in Mathematical Sciences, including Senior Honors Seminar, with a QPA of 3.5 or better in these courses; courses to be determined in consultation with the student's advisor and with the approval of the departmental Honors Committee.
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 Mathematical Sciences. " Moreover, the student's diploma and the record at Memphis State University will reflect this. The Honors Committee of the Department of Mathematical Sciences will make all decisions concerning admissions to the program.

## PHILOSOPHY

The Major: 30 semester hours in philosophy courses 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.
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 honor.

## PHYSICAL SCIENCE (See Chemistry)

## PHYSICS

The Major: 37 semester hours in physics courses. including PHYS 2511, 2512 (PHYS 2111, 2112 are acceptable but not recommended) and additional upper division hours.
CHEM 1111 and 1112; MATH 1321, 2321, 2322, and 3391, or equivalent courses.
The 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 Relations, 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, 4101, and a minimum of 15 additional semester hours in political science, at least 12 of which must be upper division hours. Only 9 semester hours of internship courses may be counted toward the 30 semester hour requirement.

## The Minors:

POLITICAL SCIENCE: 18 semester hour s in political science courses, including POLS 1101 and at least 6 semester hours from the upper division.
PUBLIC ADMINISTRATION: 18 semester hours in political science courses including POLS 1100 , 3213, 3601 and 9 additional semester hours to be selected from the following: POLS 3211 $3224,4213,4214,4221,4224,4231,4321$. $4602,4603,4604,4611$, and 4702.

## Honors Program:

The department offers an honors program to qualified majors who choose to pursue a more sophisticated knowledge of the discipline, a more rigorous level of analysis, and a deeper understanding of politics. Students who have completed about 55 hours of course work (with at least 9 hours in Political Science) and have a minimum over-all grade point average of 3.0 (with a minimum in Political Science of 3.25 ), or can present equivalent qualifications, are invited to apply for admission to the program. The program requires 18 hours of honors course work, 12 or more of which must be upperdivision Political Science courses, and minimum final grade point averages of 3.00 overall, 3.25 in Political Science, and 3.25 in honors coursework. Those students who complete the program and the regular college requirements will be recognized at the commencement ceremony by having their degrees conferred "With Honors in Political Science." Moreover, the student's diploma and the record at Memphis State University will reflect this. Details of the program are available in the Political Science Office.

## PSYCHOLOGY

The Major: 33 semester hours in psychology courses, including PSYC 1101, 1102, 2301, $2302,4101,4504$; at least one course 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 PSYC 1101, 1102, 2301 (or equivalent), 2302, and 6 additional hours at or above the 3000 level.
Honors Program:
Psychology majors who have completed at least 55 hours of course work may apply for admission to the Psychology Honors Program provided they meet these requirements: (a) an overall grade-point average of 3.00 or better, (b) completion of PSYC 1101, 1102, 2301 and 2302 and (c) a grade-point average of 3.25 or better in all psychology courses taken. Students in the program participate in an Honors Seminar (PSYC 3600) during the junior year and write an Honors Thesis (PSYC 4600) during their senior year.
To graduate with Honors in Psychology, the student must have met these requirements: (a) completion of 18 hours of honors course work. including the Psychology Honors Seminar (PSYC 3600) and the Honors Thesis (PSYC 4600). At least 12 hours of honors course work must have been acquired in upper division courses. Grades of A or B must have been received in all honors courses; (b) completion of at least 132 hours of college course work with an overall GPA of 3.25 or better; (c) completion of requirements for a psychology major with an overall GPA in psychology courses of 3.50 or better. Those students who complete the program and the regular college requirements will be recognized at the commencement ceremony by having their degrees conferred "With Honors in Psychology." Moreover, the student's diploma and the record at Memphis State University will reflect this. A detailed description of the program, together with application forms for admission, may be obtained in the Psychology Department.

## SOCIOLOGY AND SOCIAL WORK

## SOCIOLOGY

IMPORTANT NOTE: The social research minor may be elected only by students who have majors in the social sciences.
The Major: 30 semester hours in sociology, including SOCl 1111, 3311, 3322, 4210 or 4211, and completion of requirements in one of the following areas of concentration.

GENERAL SOCIOLOGY: 18 additional semester hours in sociology including at least 9 upper division hours.
MANPOWER: This concentration is open to the student who majors in sociology and who is accepted into the interdisciplinary 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 following: SOCI 4340, 4632, 4730 4912; plus 9 additional semester hours in sociology.
URBAN SOCIOLOGY: This concentration is open to the student who elects a double major in Sociology and Urban Studies. SOCI 4420, 4620, 4631, and 9 additional semester hours in sociology; plus 24 additional semester hours from the Urban Studies Curriculum.

## The Minors:

SOCIOLOGY: 18 semester hours in sociology. including SOCI 1111.
SOCIAL RESEARCH: 18 semester hours in sociology, including SOCI 1111, 3311,3322 , and 9 hours selected from the following: SOCI 4340, 4632, 4730, 4912.

## SOCIAL WORK

The Major: 39 semester hours including SOCl 1111; SWRK 2911, 3901, 3902, 3903, 3904. 3905, 3912, 4830, 4932, 4933, and one upper division course in social research. A minimum of 33 upper division hours is required. BIOL 1600 (or its equivalent) is 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 social work courses.


# The Fogelman College of Business and Economics 

M. E. BOND, Ph.D., Dean<br>Room 432, The College of Business<br>Administration Building

## PURPOSES

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 for himself.
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.

## ACADEMIC PROGRAMS

| Department |  |  |
| :--- | :--- | :--- | :--- |
|  | Major | Concentration Within Major |$\quad$ Degree Offered (B.B.A.)

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

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 continued 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.

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. Certification requirements are listed in section 7. Colleges and Degree Programs, with descriptions of programs for The College of Education. For information concerning careers in this field students should see the chairman of the Department of Distributive Education.
CAREERS AS PROFESSIONAL SECRETARIES, 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 in section 7, Colleges and Degree Programs.

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 student with broad
theoretical and practical skills that will prepare him 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 prepare himself 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 Bulletin, should be followed.

## ORGANIZATION OF THE COLLEGE

The Fogelman College of Business and Economics comprises six academic departments: Accountancy; Finance, Insurance and Real Estate; Economics; Management; 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 undergrad-
uate 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.

The college curriculum is organized into a lower division and an upper division:
THE LOWER DIVISION 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 comprises the junior and senior years of undergraduate work; courses offered in the upper division are numbered from 3000 through 4999. One of the prerequisites for any 3000 or 4000 numbered business course is junior standing (minimum of 55 semester hours credit).

## 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 Bulletin himself and fulfilling all the requirements for his degree.

## Laboratory Facilities

The Fogelman College of Business and Economics occupies modern, air-conditioned buildings with comfortable classrooms and more than 10 laboratories for student development. Among these are facilities for accounting, secretarial practice, and data processing; modern com-puter-linked terminal rooms, a sales lab, and a unique classroom specifically designed for The Fogelman College of Business and Economics' Executive Master of Business Administration (MBA) program.

## Bureau of Business and Economic Research

The Bureau of Business and Economic Research conducts research designed to contribute to economic and business knowledge. The primary emphasis of the bureau effort is on Memphis, Tennessee, and the Mid-South. The bureau has four specific functions:

1. To develop and disseminate data on current business and economic conditions.
2. To furnish to business concerns and governmental agencies special studies which will contribute to economic development.
3. To develop economic base studies for various counties and regions in an effort to help them plan the economic development of their area.
4. To train graduate students in business and economic research and to provide research facilities for faculty members.
The bureau maintains the Mid-South Information Center. This Center contains approximately 20,000 books, censuses, periodicals, studies, and brochures, and has numerous files which contain statistical data provided by national, state, and local sources. In addition to regional economic data, there is also extensive information available on business, agriculture, labor, population, finance, government, and resources. There is a working arrangement between this center and the main library of Memphis State University, and books and other information available in the Cossitt-Goodwyn Technical Library of Memphis can be obtained on a loan arrangement.

## Center for Manpower Studies

The center offers graduate and undergraduate instruction in manpower topics within an interdisciplinary framework including economics, education, management, political science, psychology and sociology. Opportunities for student research projects, including theses, and an internship program will be provided by the center. The instructional program will be provided on an inter-institutional basis with Memphis State University and the University of Mississippi.

In addition the center will sponsor and conduct research on problems of manpower allocation, policy and alternatives to existing practices.

## ADMISSION

Requirements for admission to The Fogelman College of Business and Economics are those set up for the University as a whole; see section 2, Admission to the University.

## RESIDENCE REQUIREMENTS

Residence requirements for a degree in business administration are as follow: The senior year must be in residence; at least 33 hours of upper-division business courses must be taken at Memphis State University; 12 of these hours must be in the major field.
In order to earn a minor in this college, a transfer student majoring in one of the
other colleges of the University must earn at Memphis State University at least 6 upper division hours of the total number of hours required for that minor.

University residence requirements are explained in detail in section 6, Graduation from the University.

## DEGREE REQUIREMENTS

The Fogelman College of Business and Economics offers the degree of Bachelor of Business Administration. To qualify for this degree the student must complete 132 semester hours with a quality point average of 2.0. A grade of C or better must be earned for each course required for the major or minor. A student majoring in The Fogelman College of Business and Economics is not required to have a minor.

All courses used to satisfy specific degree requirements of this college must be taken on a "letter-grade credit" basis or "credit by examination." 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.

A minimum of $40 \%$ ( 53 hours) of the 132 semester hours required for the degree must be from outside business and economics (except for the Principles of Economics) and a minimum of $40 \%$ (53 hours) of the 132 semester hours required for the degree must be taken within the college. At least 51 hours must be in business courses from upper division or other approved business related upper division courses.

In addition to the requirements cited above, electives must be selected by the student to bring the total hours to 132 semester hours required for graduation. No BBA student may apply more than four (4) semester hours of physical education activity courses to the minimum degree requirements of 132 semester hours. Specific requirements are outlined in the sections which follow.

## 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 Bulletin 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.

## Transfer Credits

A student transferring credits from a two-year collegiate institution must complete a minimum of 60 semester hours in
an accredited senior institution. If a student transfers credit in required business courses which are classified as upper division level courses in this College but were taken as lower division credit or taken at a two-year institution, these courses will be repeated or validated by examination.

## General Requirements

General requirements for the degree include the successful completion of the following:

## I. Required Courses in the Lower Division

A degree seeking student whose major is in The Fogelman College of Business and Economics is expected to complete all of the required Lower Division (LD) course work before enrolling in any of the Upper Division (UD) courses offered in this college.
(Figures in parentheses indicate semester hours credit. One-semester courses may be taken either semester.)


NOTES:
It is recommended that all business students have typewriting ability. Those who do not have this skill are encouraged to enroll in a typewriting course.
A. Must make grade of C or better.
B. The two science courses required do not have to be in the same discipline, but each must have laboratory experience. (Minimum 6 hours). Marketing majors with an Agrimarketing concentration must have a minimum of 6 semester hours of biology and/or chemistry. See description of major for more detals.
C. Freshmen only will receive credit toward the BBA Degree.
D. Only 4 semester hours of P.E. credit may be applied toward the 132 required hours for the BBA Degree.
E. It is recommended that students who do not have a strong mathematics background take MATH 1100 before they attempt MATH 1203.
F. Any student with two years of high school Algebra should take MATH 1203 If fewer than 2 years, should take MATH 1100 prior to attempting 1203. If no high school Algebra, start with MATH 1000.
G. Any two cour ses from ENGL 2101, 2102,2103, 2104. 2105, and 2106.
H. Select one of the following ( 3 hours): ART 1101. MUHL 1101, THEA 1551, HIST 1301 or 1302, PHIL 1111, or a foreign language.

## II. Required Core Courses in the UPPER DIVISION (COURSES NUMBERED 3000-4999):

Every student enrolled for the degree of Bachelor of Business Administration must complete successfully the following courses and select two Upper Division (UD) Business Administration (BA) electives. See exception below.

Students seeking a Bachelor of Business Administration degree must have a grade of " $C$ " or better in each of the required Core courses in the Upper Division (courses numbered 3000-4999).
(PREREQUISITE: JUNIOR STANDING)

| ECON 4111 | Managerial Economics | (3) |
| :---: | :---: | :---: |
| FIR 3011 | Business Law | (3) |
| FIR 3130 | Legal, Social and Political | 3) |
| FIR 3410 | Business Finance | (3) |
| MGMT 3110 | Organization and Management | (3) |
| -MGMT 4710 | Business Policy | (3) |
| MKTG 3010 | Basic Marketing | (3) |
| OFAD 3510 | Business Communications | (3) |
| **UD BA | Electives (See Advisor) | (6) |
| TOTAL |  | 30 |

* Course not to be taken before last or next to last semester before graduation.
* EXCEPTION: Accounting majors and Marketing majors with an Agrimarketing concentration are required to take only one UD BA elective.


## III. The Major

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

## IV. Sample Schedule

The following sample schedule of courses is suggested for students completing their junior and senior years. A sufficient number of general electives (business and non-business, either lower or upper division courses) are to be selected by each BBA student to complete the minimum of 132 semester hours required for graduation.

| JUNIOR |  |  |  |
| :---: | :---: | :---: | :---: |
| FIR 3011 <br> FIR 3410 <br> MGMT 3110 <br> MKTG 3010 <br> *U.D. Business Elective OR <br> *ACCT Majors: ACCT 31 (See Note) | (3) | Major | (3) |
|  | (3) | Major | (3) |
|  | (3) | FIR 3130 | (3) |
|  | (3) | OFAD 3510 | (3) |
|  | (3) | General Elective | (3) |
|  |  | Non-Business Elective | (3) |
|  | 15 |  | 18 |
| SENIOR |  |  |  |
| Major <br> Major Major ECON 4111 <br> U.D. Business Elective | (3) | Major | (3) |
|  | (3) | Major | (3) |
|  | (3) | MGMT 4710 | (3) |
|  | (3) | General Elective | (3) |
|  | (3) | General Elective | (3) |
|  | 15 |  | 15 |

*NOTE: Accounting majors and Marketing majors with an Agrimarketing concentration need one less U.D. business elective.

## V. 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.)

## PRE-PROFESSIONAL BUSINESS ADMINISTRATION MINOR

The Fogelman College of Business and Economics offers a pre-professional minor ( 27 hours) for students whose major is in another college of the University. Requirements are as follow:

ACCT 2010, 2020
ECON 2110, 2120
FIR 3130

FIR 3410
MGMT 2710, 2750, 3110
Prerequisites: Accounting, Economics, and junior standing are prerequisites for 3000 level courses.

## VI. Certificate in Entrepreneurship

The Certificate in"Entrepreneurship is awarded to a student upon completion of the following courses with a grade of C or better: MGMT 4810, 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, 3010; MKTG 3010.

## DEPARTMENTAL REQUIREMENTS FOR MAJORS AND MINORS

## Department of Accountancy

The Department of Accountancy offers a comprehensive background in accountancy; area specialization (tax, public accounting, managerial) may be obtained at the graduate level. An accounting major or minor must have a grade of C or better in every course attempted in the Department of Accountancy.

## ACCOUNTING

The Major: ACCT 2720 (Laboratory) and 24 upper division semester hours in accounting courses as follow
ACCT 3110 and $3120,3310,3510,4210,4240,4450$, 4610.

The Minor:
For students whose major is In another college of the Unlversity:
ACCT 2010, 2020, 2720, 3110, 3120. One of the following: 3010, 3310. One of the following: $3510,4240,4450$.
For students whose major is In another department In the Fogelman College of BusIness and Economics:
ACCT 2010. 2020, 2720, 3110, 3120. One of the following: 3010, 3310.

## CPA PREPARATION PROGRAM

The CPA Preparation Program is a nondegree series of credit courses in accounting which provides the accounting "core" courses in an accelerated and convenient format. The program is designed especially for those who are planning to take the CPA exam, but who lack credit for the specific accounting courses required by the State Board of Accountancy. Others who will benefit
from the program are those desiring to enter a graduate program requiring all or some of these courses as prerequisites.

The Tennessee State Board of Accountancy requires that applicants for the CPA exam have either an accounting degree or a non-accounting degree plus credit for 24 hours of accounting course credit. The CPA Preparation Program offers a feasible means of attaining credit for these specific courses: ACCT 2010, 2020, 3110, 3120, 4210, 3510, 3310, 4240. NOTE: An additional 12 hours is required by the Board from the areas of economics, computers, business law, money and banking, mathematics, or statistics. Applicants who lack previous credit in these areas should discuss with the Program director the alternative means available for obtaining that credit.
Because of prerequisite requirements, several of these courses must be taken in sequential order. Accordingly, the time normally necessary to obtain credit for these 24 hours can be substantial. By offering these courses sequentially in seven week segments, the program allows participants to earn 24 hours credit in thirteen and one-half months instead of the two or more years equivalent instruction might involve. Additionally, the course schedule requires only two evenings per week and consistency in schedules is maintained from course to course. Classes are held on Tuesday and Thursday evenings, 6:00 P.M. to 9:00 P.M. Each course is seven weeks (14 meetings -42 class hours) in length. The eight-course sequence generally begins each September and January with Fundamentals of Accounting 2010. If a person has credit (at least a C) for one or more of the courses, that person can begin the program with the next course in the sequence, or, to refresh the memory, can retake on an "audit" basis the courses for which a grade has been previously earned.

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.

[^1]Admission to Fifth Year 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 will be awarded to those who have completed all of the above requirements for graduation.
Graduate Accounting Requirements: see the Memphis State University Graduate Bulletin.

## 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.

Ingeneral, 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 Major (B.A., College of Arts and Sciences): The student will be 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 additional upper-division courses, for a total of 30 semes ter hours, selected with the approval of the departmen advisor.
The Minor:
For students whose major is in another college of the University:
18 semester hours in economic 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 majors are in The Fogelman College of Business and 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 Depart mental Honors Committee. A student must maintain an average grade of at least 3.25 in economics to contınue in the program and must have an average grade of 3.5 or better in economics to graduate with honors in econom ics. Honor students take special courses during the junior and senior years, particularly the honors sections of ECON 3310 and 3320, and write a sentor research paper At commencement they are awarded the special distinction "with honors in Economics"' Details of the program are avallable at the Economics Department office.

## Department of Finance, Insurance, and Real Estate

The 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 theo$r y$, risk management, life, health,
and property-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 manımum of 21 upper division semester hours in courses as follows:
FIR 3710, 3720, 4440, 4610, and nine additional upper division hours in courses selected with the approval of the advisor.
The Minor
For the student whose major is in The Fogeiman College of Business and Economics:
Nine upper division hours in finance approved by the department charman.
For the student whose major is within another college of the University:

ACCT 2010 and 2020; ECON 2110, 2120, 3610; FIR 3410. 3710. Three additional upper division hours approved by 3710. Three additional upper
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 major is in The Fogieman Coliege of Business and Economics:
FIR 3810 and six additional upper division hours in insurance approved by the department chairman.
For the student whose major is within another coliege 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 minımum 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 upper divisionh
The Minor
For the student whose major is in The Fogeiman College of Business and Economics:
FIR 3310 and six additional upper division hours in real estate approved by the department chairman.
For the student whose major is within another 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 his 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; (3) production man-
agement; and (4) quantitative methods and business systems.

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.

Quantitative methods and business systems involve the use of mathematical and statistical techniques to solve business problems. Such techniques often require the utilization of computers for their solution. Thus this curriculum incorporates three related areas of study: Statistics, mathematical methods (operations research), and computer utilization.

## MANAGEMENT

The Major: a mınımum of 21 upper division semester hours,
including MGMT 3510, 4420, and courses as listed in the
following concentration areas.

## GENERAL MANAGEMENT

MGMT 4210, 4790; ACCT 3010. The remaining 6 hours of the MGMT 4210, 4790; ACCT 3010. The remaining 6 hours of the
21 hour minimum for the major will be selected from any 21 hour minimum for the major will be selected from any
upper division semester hours in Management or any 3 upper upper division semester hours in Management or any 3 upper
division hours in Management and one of the following courses division hours in Management and one of the following courses
or two of the following courses with not more than one in any or two of the following courses with not more than one in any
department: ACCT 3310; ECON 3610; FIR 4440; MKTG 3140 . depart
3610.

## PERSONNEL ADMINISTRATION AND <br> INDUSTRIAL RELATIONS

MGMT 4210, 4220, 4230, 4240. The remaining 3 hours of the 21 hour minımum for the major will be selected from the following courses: MGMT 3215; ECON 3210; PSYC 350 (Note. Prerequisites: PSYC 2301, 3101), 3508; TECH 3386.

## 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 millowing courses: MGMT 3760; ACCT 3010, 3310; ECON
for 4120: MK TG 4220 .

## QUANTITATIVE METHODS AND BUSINESS SYSTEMS

MGMT $3750,3760,3780,4755,4780$.
The Minor For the student whose major is within another 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 Economics.
For students whose major is in other departments in The
Fogelman College of BusIness and Economics:
upper division coursework in management.
upper division coursework in management.

## Department of Marketing

The objective of the Department of Marketing is to provide a broad concept of the marketing process and to develop an understanding of all the factors involved in the assembly and distribution of goods and services. Marketing majors may choose from among six areas of a 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.

A marketing major or minor must have a grade of " $C$ " or better in every marketing course attempted.

## 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 (Marketıng-Communications) Mass communication media, advertising agencies, advertising departments, advertising decisions, and other advertising actıvities. MKTG $3140,3170,4150$.
TRANSPORTATION AND LOGISTICS: Background for careers with transportation companies, industrial firms or governmental agencies. Interfaces among the nation's transportation system, the furm's logistics network, and public policy. Total of nine hours selected from these courses:
3.6 hours from: MKTG 3620, 3630
plus: 3-6 hours from: MKTG 4610, 4620, 4692.
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 . 4530 .
RETAILING: Background in the operation and management of retail establishments: MKTG 3320,3330, 4330.

SALES: Field of sales from basic salesmanship through sales management; both theoretical and practical aspects: MKTG 3410, 4410, and one of the following courses. MKTG 4210, 4420, 4430
AGRIMARKETING: ( 12 hours) Careers in marketing in the non-farm business industry MKTG 3710, 4720, 4750 , and FIR 3770. Note: agrimarketing concentration requires one less upper division BA elective and six hours of natural science with lab from among the following courses: BIOL 1001, 1002, 1600, 3050; CHEM 1051, 1052, 1111, 1112. Students in this concentration are encouraged to select courses in Geography and/or Geology as general electives.
The Minor:
For the student whose major is In another college of the Unlverslty:
ACCT 2010; ECON 2110; and either
(1) MKTG 3010; 9 semester hours from the marketing core (MKTG 3012. 3610, 4080, 4901); and 6 hours from one of the marketing areas of concentration upon approval of the department chairman.
(2) MKTG 3010; 3 hours from the following courses: MKTG 3012, 3610, 4080, and any 9 hours of marketing courses approved by the department chairman.
For the student whose major is In The Fogelman College of Business and Economics:
Twelve (12) hours of marketing courses approved by the department chairman.

## Department of Office 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 his freshman year OFAD 1210 and 1220, Elementary Typewriting and Intermediate Typewriting. If he has had previous training in typewriting, he will omit 1210 and take 1220 and a higher-numbered typewriting course, or one semester of an approved elective.
The student planning an area of concentration in office administrationsecretarial will take in his sophomore year OFAD 2120 and 2130, Fundamentals of Shorthand and Intermediate Shorthand. If he has had previous training in shorthand, he will omit 2120 and take 2130 and a higher-numbered short-
hand course, or one semester of an approved elective. Students planning an area of concentration in office adminis-tration-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 requirements by a student with high school credit in typewriting.
A student must earn a grade of C or better in typewriting or shorthand courses before he can register for the next course in the subject.

## OFFICE ADMINISTRATION

The Certificate (LegalAssistant): a 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 a non-business elective, and 3 hours in one of the following PSYC 1101. SOCI 1111. POLS 1100 , or ANTH 1400
33 hours in Office Administration as follows: OFAD 2210, 2211, 2212, 2213, 2214, 2215. AND five of the following OFAD 2216, 2221, 3217, 3218, 3219, and 3220 .
The Major (Legal Office Management Concentration): in addition to the 33 semester hours in Office Administration
courses listed above for the Legal Administration Certificourses listed above for the Legal Administration Certificate, a minimum of 21 upper division hours in courses as
follows. OFAD $3250,4330,4340,4350,4410 ;$ CJUS 3521. 3522.

The Major (Secretarial Concentration): a minımum of 21 upper division semester hours of office administration and two of the following courses, selected in conference and two of the following courses, selected in cor
with advisor. OFAD $4161-63,4340,4410,4420$.
The Mmor (Secretarial Concentration).
For the student whose major Is In another college of the
Unlversity: Unlversity:
OFAD 1210, 1220, 2120, 2130, 3140, and upper division hours in two or three additional approved courses in office administration approved by the department chairman. (If the student can demonstrate proficiency in either typewriting or shorthand, he may omit etther OFAD 1210 or 2120 , thus reducing the hours required for the minor from 21 to 18 , a minimum of 18 semester hours is required.)

For the student with a major In other departments of The
Fogelman College of Business and Economics:
Upper division hours in three additional courses in Office Administration approved by the department chairman
The Major (Managerial Concentration): a minumum of 21 upper-division semester hours of courses as follows: OFAD 4320, 4330, 4410, 4420; ACCT 3010; and two of sor MGMT 4210, 4420, 3750; FIR 4610, MKTG 4330.
The Minor (Management Concentration):
For the student whose major Is In another college of the Unlversity:
ACCT 2010, 2020: ECON 2110. 21 20; OFAD 3510, 4410. and upper division hours in two additional courses in office administration approved by the advisor
For the student with a major In other departments of The Fogelman College of Business and Economics:
Upper division hours in three additional courses in office administration approved by the department chairman.

## THE PROGRAM IN INTERNATIONAL BUSINESS

## ASSOCIATE PROFESSOR JOHN J. REID, Advisor

## Business Administration 426C

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 his knowledge to the solution of problems faced by the company.

## INTERNATIONAL BUSINESS

The Major
The student majoring in International Business must complete the same courses required of all students working toward the B.B.A. degree. For additional requirements during the sophomore and junior years, see the International Business advisor. Students majoring in International Business are required to take six credit hours in toreign language. It is also strongly suggested that the students take more than six hours. Students meeting all the requirements established by The Fogerman College of Business and Economics and the University for the B.B.A. degree and also meeting the language requirements established by the Foreign Language Department for a major in Foreign Language will be conterred a B.B.A. degree with a major in International Business and a second major in Foreign Language.
In his senior year, the student will take 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 ACCT 4310, International Accounting BA 4000 , Internship in International Business ECON 4340 . Comparative Economic Systems ECON 4350, International Economics FIR 4550 , International Finance
MGMT 4810, International Management MKTG 4530. International Marketing
6 semester hours (2 courses) from the following group
ECON 4120. Economic Forecasting
FIR 4440, Managerial Finance
MGMT 3760. Operations Research
MGMT 4780. Systems Design for Business Activities MKTG 4080, Marketing Research
Two courses from the College of Arts and Sciences are also required in the senior year. See the advisor
The Minor
For the student who is majoring within The Fogeiman College of Buslness and Economics:

Nine hours from the following courses with the approval of the International Business advisor: ACCT 4310, BA 4000, ECON 4340, 4350. FIR 4550. MGMT 4810. MKTG 4530

For the student who is majoring within another college of the Universlty:

The student will take a minumum of 18 hours within The Fogelman College of Business and Economics, at least 9 hours of which must be chosen from the following: ACCT 4310, BA 4000. ECON 4340, 4350, FIR 4550, MGMT 4810. MKTG 4530.

The necessary prerequisites for the above courses are in parentheses below
ACCT 4310 (ACCT 2010, 2020); BA 4000 (Consent of the International 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).

# 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 |
| :---: | :---: | :---: | :---: |
| 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 (Magazine) (Newspaper) (Photojournalism) <br> (4) Public Relations | Bachelor of Arts (B.A.) |
| Music | Music | (1) Brass Instruments <br> (2) Church Music (Choral) (Organ) <br> (3) Composition <br> (4) Music History <br> (5) Music Theory <br> (6) Organ <br> (7) Percussion <br> (8) Piano and/or Harpsichord (Chamber Music) (Pedagogy) (Performance) <br> (9) Strings <br> (10) Voice/Opera (Voice) (Opera) <br> (11) Woodwinds | 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) General Speech and Theatre <br> (2) Broadcasting <br> (3) Communication <br> (4) Film and Videotape Production <br> (5) Theatre | Bachelor of Arts (B.A.) |
|  | Theatre | (1) Performance <br> (2) 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 wide compass of opportunity 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.

## ADMISSION

The requirements for admission to the College of Communication and Fine Arts are those established by the University as a whole: see section 2, Admission to the University. See the descriptions of the specific degree requirements for any special admissions requirements.

## RESIDENCE REQUIREMENTS

University residence requirements are explained in detail in section 6, Graduation from the University. A transfer student in The College of Communication and Fine Arts must earn at least 6 semester hours in residence in his major subject and at least 3 semester hours in his 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 section 7, Graduation from the University. An application to enter the teacher education program must be filed with the education analyst, room 215 The College of Education.

## 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. Requirements for the Bachelor of Fine

Arts and the Bachelor of Music degrees are outlined later in this section. The Bachelor of Music Education degree is jointly administered with The College of Education. Requirements for this degree are outlined with descriptions of majors for The College of Education. 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 him classification as a major or minor in the discipline concerned; he 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, he may require additional work, the repetition of courses, or other evidences of superior scholarship.

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 four semester hours 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 with the prefix DANC ( 1000 level) may be taken to fulfill physical education requirements.

## 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 he has under 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 a minimum grade of C, and two of
Humanitles: six semester hours to be chosen from communications, English, foreign languages, hustory, music history, philosophy, or theatre history.
History: HIST 2601, 2602.
Natural/Physical Sclence: 6 semester hours (A sequence is required only for those students with a concentration in Art Education and who are seeking state certification,) in biology, chemistry, GEOG 1101, 1102; GEOG 1101. GEOL 1101. GEOL 1101, 1201: PSCI 1031 1032: or physics.
Mathematics: One-semester course ( 3 semester hours) MATH $1181,1182,1203,1211$, or 1212 ; or PHIL 1611
Physical Education: for details see section 6, Graduation from the University
2. Basic Art Courses (39 hours)

ART 1311, 1314, 2313; 1201, 1204, 2201, 2202; 2101. 2102.

Art History: 12 upper division semester hours in art history courses; no more than 3 hours of museum studies may be used to satisty this requirement. (Stu3104 . in Art Education, 3104; in Art Education, students are required to take only ART 4167 and 4168 .)

## 3. Concentration Areas:

a. Ceramics, Painting, Printmaking, and Sculpture (42 hours):
ART 2314, 4321; 3523, 3524, 4521, 4522; 2351, 3351 4351: 2511, 3511, 4511; 3331, 3332, 4331, 4332; 621, 4622; 4611
NOTE: Selection of fourteen (14) appropriate courses from the nineteen (19) courses listed above
b. Graphic Deslgn ( 42 hours):

ART 2213, 2221, 2312, 2351; 3221, 3222, 4221, 4222; 3223, 3541; 4321, 4341, 4342, 4611
c. Interlor Design ( 42 hours): ART, $2233,2234,2312,3233,3234,3235,3236$. 3237, 3238, 4237, 4238, 4239, 4240, 4611.
d. Art Education ( 51 hours): ART $2314,3523,4321,4322,4424 ; 3411,3413.3421$. 4421: EDFD 2011: EDPS 2111, 3121: SPER 2000; SCED 4441, 4841.
(Art education majors must also complete all general education courses outlined in section ll of the Requirements for Teacher Certification as listed.
e. Design ( 39 hours): 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 Department 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 give strong evidence of potential for significant achievement while working with the business or recording areas of the music industry. Two concentrations are offered: I. Music Business and II. Recording Engineering.
Admission: An interview is required of all students entering this program in order to gain an appreciation of the student so that preliminary estimates of student commitment and potential success can be made. One or more representatives of the Music Industry Advisory Board will be invited to participate in the preliminary assessment. Stringent quality control is essential. upon admission, the student will be assigned a faculty advisor.
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 Section 3, 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 femester by the faculty in Commercial Music. Academic excellence and personal commitment to a career in the music ndustry as evidenced by involvement in projects of the student's own invention apart from classroom assignments will lso be assessed.
Graduation from the Program: For the B.F.A. in Commercial Music, 142 semester hours are required for graduation. A minimum grade of $C$ and an average GPA of 3.0 are required in Commercial Music and Business courses.

## 1. GENERAL EDUCATION COURSES

Engllsh: ENGL 1101,1102 with a minimum
grade of C: and two of the following: 2101.
2102, 2103, 2104, 2105, 2106
Humanities: six semester hours to be chosen from communications, English, foreignianguages, history
theatre history, philosophy, or art history
History: HIST 2601, 2602
Natural/Physical Sclences: (sequence not required)
Mathematics: MATH 1213 or higher
Physical Education: for details see Section 6, Gradu-
ation from the University.
2. COMMERCIAL MUSIC CORE(49-51 hours):
ACCT 2010; MUTC 1001, 1002; MUHL 3302 or 4802 ; CMUS 1811, $3861,4602,4603,3100,3101,3823,4898$ or 4899; two of the following: CMUS 3824, 4831; JOUR 2300, 3400: CJUS 3152, 4233

## 3. CONCENTRATION AREAS

a. Music Business ( 39 hours):

ACCT 2020; CMUS 2213, 2221, 3223; COMM 4811. ECON 2110, 2120; FIR 3130, 3410; MGMT 2750 , 2710, 3110; MKTG 3010.
. Recording Engineering ( 39 hours):
CMUS $3800,3801,4800,4801,4802,4803,4804$.
4805 ; COMM 3821; three of the following: ACCT 2020; ECON 2110; FIR 3130, 3410; MGMT 2750 , 2710, 3110; MKTG 3010; COMM 3011 .

## 4. ELECTIVES

Elective courses to bring the total to a minimum of 142 hours. These courses will be chosen by the student in consultation with the advisor and major professor.

## 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 his 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. 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 his specialized training at the end of the sophomore year.
Admission: Admission to the B.F.A. program in Theatre Arts 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 Production area. The student will submit a portfolio of his 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 his work will be assessed by the theatre faculty. His artistic growth, his development of technical facility, his continuing commitment to creative excellence-all will be evaluated. Permission to continue in the program will be based upon his 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,
$2102,2103,2104,2105,2106$

## Humanitles:

Six semester hours to be chosen from comtory. music history, philosophy, or art history. History: HIST 2601, 2602
Natural/Physical Sclences:
(Sequence not required)
Physlcal Education (THEA 2501 or
2502 may be substituted for one (1) P.E. course)

## 2. BASIC THEATRE CORE COURSES (36

 hours):THEA 1411, 1551, 1561, 2501, 2511 or 2512, 2531. 3412,3541 (2 hours), 3542 ( 4 hours), 4551 or 4552 , 4582, and COMM 1781.

## 3. CONCENTRATION AREAS

## Performance, 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:
a. Performance (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. Production (Design / Theatre Technology Sequence): THEA 2511 or 2512 (whichever one was not taken as part of Theatre core requirement), 3511, 3512 , $3513,3542,3561,4541,4551$ or 4552 (to comple$4564,4565,4567,4569,4591,4592 ; 16$ hours of elective courses chosen in conference with the student's advisor.
c. Dance

THEA 2532, 3541, 3542, 4541; DANC 1821, 1822. 1823, 1825, 1826, 1827, 1831, 1832; PHED 3403; workshops and directed individual studies selected from THEA 4553 or DANC 4102., 4303, 4903: 10 elective hours to be determined in conference with advisor: Theatre movement chosen with advisor ( 6 tions and Pas de Deux; Dance Techniques; Dance tions and Pas de
Performance Lab).

NOTE: THEA 4541 Internship (see course description in section 8.) The intent of this degree 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 B.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 Section 3, 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 are required for graduation. A minimum grade of $C$ and an average GPA of 3.0 are required for courses in the major, with an overall GPA of not less than a 2.0.

1. GENERAL EDUCATION COURSES (37-39 semester hours)
English: ENGL 1101, 1102 with a minumum grade of C ; and two of the following: ENGL2101, 2102,2103.2104, 2105. 2106(12)
Forelgn Languages: 6 semester hours in one foreign language (6). For detais see advisor.
HIstory: HIST 2601,2601 (6)
Sclence: a two-semester sequence course ( 6 semester hours or more) in boology; chemistry: GEOG 1101, 1102; geology; or physics (6-8)
Mathematics: MATH 1213 or higher (3)
Physical Education: for details see Section 6. Graduation from the University. (4)
2. COMMERCIAL MUSIC CORE COURSES (15-17 semester hours)
ACCT 2010; CMUS $4602,4897^{*}$; one of the following: CMUS 3100, 3101, 3823; CMUS 3800

- Composition Project required for Studio/Live Performance and Performance Project required for Composiance and Pernormance Project
tion/Arranging concentration.

3. MUSICIANSHIP CORE COURSES (42 semester hours)
MUTC 1008, 1010, 1009, 1011, 2008, 2010, 3008, 3009; MUHL 3302, 4802 (History of Jazz); one of the following: MUHL 4802 (History of Rock and Pop Music or AfroAmerican Folk Music); MUAP 1000; MUSE 1105; CMUS
$1116,2101,2102,3828$. 1116, 2101, 2102, 3828.
4. CONCENTRATION AREAS
a. Studio/LIve Performance ( 48 hours)

Individual lessons on a major instrument or voice of which a minimum of 4 hours must be in upper division courses (14)

Instruction on a secondary instrument or voice (piano majors take MUTC 2511 ) (2)
MUAP 3010 (University Jazz Ensemble) (8)
MUAP 3011 (4), 3103 (6), 3825 (3), 3826 (3), 3827 (3),
4103 (3). These courses have separate sections for voice 4103 (3). These courses have separate sections for voice and instrumental students.
4201 (Studies in Commercial Music) (2)
b. Composition/Arranging ( $47-48$ hours)

Major instrument or voice (6)
MUSE 1101, 1104, 1109; MUAP 1311 (pianists MUSE 1111), 1411 (percussionists MUSE 1111); MUTC 2501 ,
2502,2511 3106; two semesters each of: MUAP 3010 , $2502,2511,3106$; two semesters each of: MUAP 3010,
3011,3103 (vocalists may take MUAP 3601); CMUS 3011,3103 (vocalists may take MUAP 3601); CMUS
$2501,2502,4102,4501,4502(36)$
Two of the following: CMUS $3801,3825,4103,4603$; MUTC $3108(5-6)$

## Bachelor of Music (In Music)

The Bachelor of Music is a professional degree, the requirements for which provide the student with a greater opportunity for specialization in music than available under the other baccalaureate programs. A minimum grade of " C "' is required in every graded course applicable toward a major or minor. 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 music courses, (3) courses required for one of the eleven concentrations as outlined, (4) music electives and (5) elective courses other than music and music education to bring the total to 132 semester hours. Transfer students must complete at Memphis State University at least 30 semester hours of upper division credit in the music degree program.
Admission: Applicants seeking admission as music majors must complete and submit to the Admissions Office of Memphis State University a formal application form. In addition to academic considerations, admission to the music degree program requires a personal interview (where applicable) and an audition of all candidates. The audition consists of (1) performance in the student's major applied area and (2) a music theory examination (written and aural). Candidates are accepted on the basis of accomplishment, future promise, and suitability for the program in which they wish to enroll. Candidates audition at designated locations on Saturdays,

November through April, or by appointment. Students seeking admittance as music majors in the fall semester are required to audition no later than June 15. Students seeking admittance as music majors in the spring semester are required to audition no later than December 1. Additional information regarding admittance as a music major may be obtained through the office of the Department of Music.

Detailed degree requirements are as follow: figures in parentheses indicate semester hours credit.

## 1. GENERAL EDUCATION COURSES (34-36

 semester hours)English: ENGL 1101, 1102 with a minimum grade of C: End two of the following: 2101, 2102, 2103, 2104, 2105, 2106 (12).
Forelgn language: 6 semester hours in one foreign language: for details see advisor (6).
History: HIST 2601. 2602 (6).
Sclence:
Sclence: A two-semester sequence course (6 semester hours or more) in biology. chemistry. GEOG 1101 , Mathematic: 3 ser physics ( $6-8$.
Mathematict: 3 semester hours from the following 1181 , 1182, 1203, 1211, 1212, 1312, 1321, 2291. 2321, or Physical Educatlon:for
Physical Education: for details see section 6, Graduation
from the University.

## 2. BASIC MUSIC COURSES ( 36 semester

 hours)MUTC 1008, 1010. 1009, 1011, 2008, 2010, 3008, 3009, $3010,3101,3102(22)$
MUHL 3301, 3302, History of Music (6)
Large Muslcal Organizatlons: A minimum of eight of large ensembles is required of music majors (Exceptions to this policy are pianists with concentration in Performance, Pedagogy, or Chamber Music; guitarists who are required to have a minımum of 6 semesters of large ensemble; Commercial Music majors in Performance. who are 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.) 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 sufficient large ensemble credits may partially fulfill their large ensemble requirement 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 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 approprtate ensemble director, and the applied teacher.
Plano Proflclency: 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 semesstudent's area of major study. given once each semes-
ter. An official notice will be mailed to the student and appropriate officials upon completion of MUSE 2108 or the piano proficiency exam. Copies of the requirements for the piano proficiency examination are avallable 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 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 permission of their division heads and the permission of the Piano Division coordinator). Transfer students must Piano Division coordinator). Transler students must semester of residence or enroll in Class Piano at the semester of residence or enroli in Class Piano at the
Applied Music Workshop: The course MUAP 1000 is required of all music majors for eight semesters and of all music education students for seven semesters. Attendance at 14 recitals per semester is required.
3. MAJOR: Music

Concentration Areas (choose one):
a. Brass Instruments ( 46 hours).
a. Brass individual instruction in major instrument (32)

Individual instruction in two secondary brass instruments (4)
MUSE 1104, Class Instruction in Woodwind InstruMUSE 1104
MUSE 3700, Basic Conducting (2)
Junior and Senior Recitals (2)
Small Ensembles, 4 semester hours required to be chosen from those listed under "Small Ensembles and Chamber Music" in the description of music courses in section 8 (4)
b. Church Music

Choral Emphas/s ( $40-41$ hours):

Individual instruction in voice (16)
MUSE 3700, Basic Conducting (2)
MUSE 4701. Choral Conducting (2)
MUSE 4701, Choral Conducting (2), Sen Recital Choral Conducting and Special Problems in th Teaching of Music (1-2)
MUSA 4104. 4105, Sacred Music in History and Prac tice I and il (6)
MUSE 4202, Materials and Methods K-6 (3)
MUSE 4207. Choral Methods and Materials (2)
Small Ensembles (4)
Music Electives (2)
Organ Emphas/s (49 hours):
Individual instruction in organ (16)
Individual instruction in voice (4)
MUSE 3700, Basic Conducting (2)
MUAP 4339. Senior Recital (1)
MUSE 4701. Choral Conducting (2)
MUSA 4104, 4105, Sacred Music in History and Prac tuce I and il (6)
MUSE 4202, Materials and Methods K-6 (3)
MUSE 4207. Choral Methods and Materials (2)
MUSA 4101. Service Playing (3)
MUTC 3105 or 3106, Counterpoint (2)
MUHL 4005,4006 , History and Literature of the Orgar
I and II (4)
I and II (4)
Music Electives (2)
Small Ensembles (2)
c. Composittion ( 47 hours):

Individual instruction in applied music to include four
semester hours of piano (12)
MUTC 2501. Composition (2)
MUTC 2502, Composition (4)
MUTC 4501, Composition (8)
MUTC 4501. Composition (8)
MUTC 4511, Intermesters)
MUTC 4511, Intermediate Electronic Music (2)
MUTC 4512, Advanced Electronic Music (2)
MUTC 4512, Advanced Electronic Music (2)
MUTC 3105, 3106, 3108 . Counterpoint (6)
MUTC 3105, 3106, 3108. Counterpoint (6)
MUTC 3103. Advanced Orchestration (3)
MUSE 3700. Basic Conducting (2)
MUSE 3702, Score Reading (3) or
MUHL 4406. Music of the Twentieth Century (3)
MUTC 4599. Senior Composition Recital (1)
MUAP 3402, Contemporary Chamber Players (2)
d. Music History ( 46 hours).

Individual instruction in applied music (8)
MUTC 3105, 3106, Counterpoint (4)
Advanced Music History (12)
Two additional courses in the social sciences (6)
Foreign Language: 12 semester hours in addition to requirements for general education (12)
Collegrum Musicum (4)
e. Music Theory ( 49 hours):

Individual instruction in applied music (12). At least 8 of
these hours must be in piano.
MUTC 4502, Composition for Non-compositıon majors
$\stackrel{(3)}{M U T C}$
MUTC 3105, 3106, 3108, Counterpoint (6)
MUTC 3103, Advanced Orchestration ( 3 )
MUTC 3103, Advanced Orchestration (3)
MUSE 3700, Basic Conducting (2)
MUSE 3702, Score Reading (3)
MUTC 4203, Critical Studies in Music (3)
MUTC 4101. Compositional Techniques of the Twenti-
eth Century (3)
MUTC 4105, Analytical Techniques (3)
MUSE 4701, Choral Conducting (2)
MUTC 4104. Pedagogy of Theory (3)
Upper Division Music History (6)
f. Organ ( 49 hours):

Individual instruction in organ (32)
MUAP 4338, 4339 Junior and Senior Recitals (2)
MUSE 3700. Basic Conducting (2)
MUSE 4701, Choral Conducting (2)
MUTC 3106, 18 th Century Counterpoint (2)
MUSA 4101 . Service Playing (3)
MUHL 4005, 4006. History and Literature of the Organ I and II (4)
Small Ensembles (2)
g. Percussion (46 hours):

Individual instruction in percussion (32)
MUSE 1101. Class Instruction in Brass Instruments (2)
MUSE 1109, 1110, Class Instruction in String Instru-
ments (2)
MUSE 1104, Class Instruction in Woodwind Instruments (2)
MUSE 3700, Basic Conducting (2)
MUAP 4418, 4419 Junior and Senior Recitals (2)
Small Ensembles, 4 semesters required, 2 semesters of MUAP 3401 Percussion Ensemble, and the other 2 to be chosen from those listed under "Small Ensembles and Chamber Music" in the description of music
courses in section 8 (4)
h. Plano and/or Harpsichord

Chamber Mus/c Emphas/s (55-56 hours):
Individual instruction in piano (32)
MUSE 4501 Basic Piano Pedagogy (3)
MUSE 4503 Advanced Piano Pedagogy (3)
MUSE 4505 Principles of Accomanying (3)
MUHL 4001 Plano Repertory (3)
MUAP 3301 Chamber Music for Planists (6)
MUAP 4002, 4003, OR MUHL 4004: Song Repertory I. Song Repertory il, or Survey of Chamber Music for
Piano (2) Piano (2)
MUAP 4318 Junior Recital (1)
MUAP 4348 Junior Accompanying Recital (1)
MUAP 4349 Senior Accompanying Recital (1)
Pedagogy Emphasls (54 hours):
Individual instruction in piano (32)
MUSE 4501, Basic Piano Pedagogy (3)
MUSE 4503 Advanced Piano Pedagogy (3)

MUHL 4001 Piano Repertory (3)
MUAP 3301 Chamber Music tor Planists (6)
MUAP 4318 Junior REcital (1)
EDPS 2111 Human Growth and Development (3)

## Performance Emphasis ( 53 hours):

Individual instruction in piano and/or harpsichord (36)
MUSE 4503 Advanced Piano Pedagogy (3)
MUSE 4505 Principles of Accompanying ( 3 )
MUUL 4001 Piano Repertory (3)
MUAP 3301 Chamber Music for Pianısts (6)
MUAP 4318, 4319 Junior and Senior Recitals (2)
I. Strings ( 47 hours):

Individual lessons in major instrument (32)
Individual instruction in two secondary string instruments (4)
MUTC 3103. Advanced Orchestration (3)
MUSE 3700, Basic Conducting (2)
Junior and Senior Recital (2)
Smail Ensembles, 4 semesters required to be chosen from those listed under "Small Ensembles and Chamber Music' in the description of music courses in section 8 (4)
J. Voice/Opera

Voice Emphasis ( 53 hours):
Individual instruction in voice (24)
MUAP 4002, 4003 Song Repertory 1 and ll(4)
MUHL 4407 The Opera and Music D
MUSE 4701 Choral Conducting (2)
MUSE 4701 Choral Conducting (2)
Foreign Language (12) In addition
Forelgn Language (12) In addition to 6 hours general education requirement, 6 hours each in 2 other languages (must be in French, German, or Italian)
Junior Recital (MUAP 4618) (1)
Senior Recital (MUAP The junior recital may be satisfied by public performance in a major operatic role.
Small Ensembles (6)
MUAP 3602 Opera Workshop (2)
MUAP 3604 Opera Production (2)
Additional small ensembles of the student's choice (2)

Opera emphasis ( 54 hours):
Individual instruction in voice (16)
MUAP 4002,4003 Song Repertory I and II (4)
MUHL 4407 Opera and Music Drama (3)
THEA 1551.2501.2515.2531.3511
Foreign Language (12) In addition to 6 hours general education requirements, 6 hours each in 2 other languages (must be in French, German, or Italian)
Junior Recital (MUAP 4618) (1)
Senior Recital (MUAP 4619) (1)
NOTE: The junior recital may be satisfied by public performance in a major operatic role.
Small Ensembles (11):
MUAP 3602 Opera Workshop (4)
MUAP 3603 Opera Soloists (4)
MUAP 3603 Opera Soloists (4)
MUAP 3604 Opera Production
k. Woodwinds ( 51 hours):

Individual instruction in major instrument (32)
Individual instruction in three secondary instruments MUSE
MUSE 1101, Class instruction in Brass Instruments (2)
MUTC 3103, Advanced Orchestration (3)
MUSE 3700, Basic Conducting (2)
Junior and Senior Recitals (2)
Small Ensembles, 4 semesters required; to be chosen from those listed under "Small Ensembles and Chamber Music" in the description of music courses in section 8 (4)
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.

## 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 courses toward the 132 hours required for graduation.)
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.
Natural sctence: 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 1200, 1600; CHEM 1051, 1052 , or CHEM 1111, 1112 ; or PSCI 1031, 1032; GEOG 1101, 1102; GEOG 1101, GEOL 1101: GEOL 1101, 1201 (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 .
Soclal 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 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; INTL 1101, 1102 ; POLS 1101, 2211, 2301, 2501; PSYC 1101, 1102; SOCI 1111, 1112; no more than 6 hours from the following courses: JOUR 1700, COMM 1781, 1782.
Mathematics/Philosophy: 9 semester hours as follow: 3 of mathematics plus 3 of philosophy plus 3 of either. The ollowing courses are acceptable: MATH 1181, 1182,1203 2401, 2402, 2581, PHIL 11111, 1611 .
FIne Arts: Two of the following courses: ART 1101; MUHL 1101; THEA 1551.
Physical Education: for details see section 6, Graduation from the University.
Malor: 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. AmeriCan, and non-European art. A minimum of 3 hours in studio art is also required.
ART
The Major: None available.
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 onfy one concentration and/or emphasis and may not simultaneously complete, within the 132 hours required for the Bachelor of Arts degree, the concentration in film and videotape production within the theatre and communication arts major. Twelve Department of Journalism, approved by the student's advisor. is recommended.
The Major:
Journalism core (required of all students majoring in journalism) ( 12 hours): JOUR $1700,2121,4700$, and one of the following: JOUR 3700, 4702, 4704, 4706, 4708, or 4726 .
Completion of one of the following concentrations:
ADVERTISING (18 hours): JOUR 2300, 2710, 3322, 3324, 3335, 4327.

BROADCAST NEWS ( 17 hours): JOUR 3625, 3720, 4629; COMM 3823, 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).
PUBLIC RELATIONS (33-34 hours): JOUR 2123, 3720, 3400 . 3421. 4423; COMM 1311; MGMT 3110; SOCi 3311, 3322; MKTG 3140; JOUR 3625 or COMM 3823. Twelve semester hours in a secondary area of emphasis, outside the Department of Journalism, approved by the student's advisor.
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 Heimsman; The DeSoto, University yearbook; or in one of the following activities: University Public Information Office. Athletic Publicity Office, Alumni Publicity Office, Photo Service Department. Qualified majors will be chosen for senior-year internships with Memphıs newspapers, magazınes, advertıs-ing-public relations agencies, and broadcasting 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 MUHL 3301, 3302
Individual instruction in piano, organ, voice, or orchestral instrument, 4 semester hours
Applied Music Workshop (See section 8, Description of
Courses, for details.)
Applied Music (4 hours)
4 semester hours of individual instruction in upper-division courses.

## THEATRE AND COMMUNICATION ARTS

Select one of the following concentration areas:
BROADCASTING: 36-37 semester hours, including THEA 1551, COMM 1781, 1782, 2321 or 3322 or 3341,3800 , 3823 or $3821,4810,4857$, and 12 additional COMM hours which must include two of the following courses: COMM 4811, 4831, 4854, or 4871 .
COMMUNICATION: 36 semester hours, including THEA 1551 , COMM 1780, 1781, or 1782, 2321 or 2322 or 3341,3800 or 3851,2781 or 3322,4341 or 4373 or 4375,3013 or 3372 or 3373 , and 12 additional hours to be selected from COMM. At least 18 hours of concentration must be uper-division hours.
FILM AND VIDEO TAPE PRODUCTION: 38 semestr hours, including THEA 1551, COMM 1780,1781 or 1782,2321 or 3322 or $3341,3823,3824,4824$ or 4825,4842 or 4892, and 12 additional COMM hours which must include two of the following courses: 4851, 4852, 4853, or 4854 .
GENERAL SPEECH AND THEATRE: 36 semester hours, including THEA 1411 and 1551, COMM 1780, 1781 or 1782 , 2321 or 2322 or 3341,2781 or $3322,3851,3800$, and twelve additional hours in Theatre and Communication Arts. At least 18 hours of concentration must be upperdivision courses.
THEATRE: 36 hours in theatre courses: THEA 1411, 1551, 1561. COMM 1781. THEA 2501, 2511 or 2512, 2531, 3412,3541 ( 2 hours), 3542 ( 4 hours), 4551 or 4552 , and 4582 .
General Electives ( 27 hours Upper Division ONLY): no more than six of the 27 required upper division electives may than six of the 27 required upper division electivesmay
be selected from the Theatre area, to be chosen in conterence with the student's advisor.
The Mnor: Any student wishing to minor in any area (Communication Arts, Theatre, Dance, Theatre and Communication Arts) in the Department of Theatre and Communicatıon Arts should see the department chairman who will assign an appropriate advisor. The minor must consist of at least 18 hours of approved coursework (for the Dance minor, 6 of these hours must be upper division), as determined by the student in conference with his advisor and with the approval of the department chairman.

# The College of Education 

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

## ACADEMIC PROGRAMS

| Department | Major (Concentration) |  |  | Degree Offered |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Major Endorsement | Minor Endorsement |  |
| Curriculum and Instruction | Elementary Education | Elementary Education | Kindergarten | Bachelor of Science in Education (B.S.Ed.) |
|  | Early Childhood <br> Education (K-3) <br> Secondary Education | Art Education Business Education <br> Distributive Education <br> English <br> Foreign Languages <br> French <br> German <br> Latin <br> Russian <br> Spanish <br> Health Education <br> Elementary Physical <br> Education <br> Secondary Physical <br> Education <br> Industrial Arts Education <br> Mathematics <br> Math \& Phys. Science <br> Music Education <br> Instrumental Music <br> School Music <br> Science <br> Biology <br> Chemistry <br> Earth \& Space Sciences <br> General Science <br> Physics <br> Social Studies <br> Economics <br> Geography <br> Government <br> History <br> Sociology <br> Special Education <br> Speech and Drama <br> Vocational Home <br> Economics | Business Education <br> Secretarial Practice <br> Bookkeeping. <br> General Business <br> Typewritung <br> Economics. <br> Consumer Education, <br> General Business, <br> Business Law <br> Distributive Education <br> Driver Education <br> English <br> Foreign Languages <br> French <br> German <br> Latın <br> Russian <br> Spanish <br> Health Education <br> Elementary Physical <br> Education <br> Secondary Physical <br> Education <br> Industrial Arts Education <br> Librarian <br> Mathematics <br> Psychology <br> Science <br> Biology <br> Chemistry <br> Earth \& Space Sciences <br> General Science <br> Physics <br> Social Studies <br> Economics <br> Geography <br> Government <br> History <br> Sociology <br> Special Education <br> Speech and Drama |  |
| Health, Physical Education and Recreation | Health Education Physical Education (Elementary) (Secondary) | Health Education Elementary Physical Education <br> Secondary Physical Education | Health Education Elementary Physical Education <br> Secondary Physical Education | Bachelor of Science in Education (B.S.Ed.) |
|  | *Recreation and Park Administration |  |  |  |
| Home Economics and Distributive Education | -Home Economics <br> (Dietetics) (Food Administration) (Merchandising-Fashion) (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) | Vocational Home Economics |  | Bachelor of Science in Education (B.S.Ed.) |
|  | Distributive Education | Distributive Education | Distributive Education | Bachelor of Science in Education (B.S.Ed.) |
| Music <br> (College of Communication and Fine Arts) | Music Education (Instrumental Music) (School Music) | Music Education Instrumental Music School Music |  | Bachelor of Music Education (B.M.Ed.) |
| Special Education and Rehabilitation | Special Education <br> -Rehabilitation Education (Rehabilitation of the Public Offender) (Vocational Evaluation) (Rehabilitation Education) | Special Education | Seecial Education | Bachelor of Science in Education (B.S.Ed.) |

- Not approved as a valld certification area in Tennessee
-"The endorsements are listed only with the departments in which they are offered, but they may accompany any major.


## PURPOSES

In helping Memphis State University achieve its three broad objectives of teaching, public service, and research, the College of Education has the following specific objectives: (1) to work with schools and other appropriate organizations in recruiting desirable and promising candidates into education careers; (2) to provide preparation programs which produce teachers and related educational personnel sufficient in quantity and competence to help meet the needs of the state, region, and nation; (3) to provide programs and services for other educational personnel already in service which enable them to acquire additional preparation needed for changing career objectives and continuous professional growth; (4) to provide effective personnel services in such areas as certification, placement, and follow-up to undergraduates, graduates, and educators in service; (5) to provide a comprehensive program of research and service to schools and other appropriate agencies in the state and region; and (6) 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.

## ORGANIZATION OF THE COLLEGE

The College of Education is composed of the following departments: Curriculum and Instruction; Counseling and Personnel Services; Educational Administration and Supervision; Foundations of Education; Health, Physical Education and Recreation, Home Economics and Distributive Education, and Special Education and Rehabilitation. Other units in the college are described in the following paragraphs.

## Bureau of Educational Research and Services

The Bureau of Educational Research and Services is a catalytic agency for the promotion of research and development in The College of Education. As such, it is the coordinating agency of the college for several types of activities that involve faculty members: research, evaluation, program development, and field services. Throughout its years of operation it has provided for the initiation of programs (that are now departmentalized) and for program coordination involving two or more departments.

Through the bureau, the faculty of the college serves the community, state, region, and nation by participating in joint ventures with local school systems, institutions of higher education in Tennessee, the State of Tennessee, the U.S. Office of

Education, the armed forces, and other organizations of local, regional, and national agencies.

Research projects involving faculty members relate to delivery systems, testing and test development, faculty improvement, surveys, and assessment efforts. Evaluation activities center on learning disabilities, pre-vocational education, science, social science, Title I projects, and school systems. Field services, including institutes and workshops, in-service training in proposal writing and submission procedures, and consultation for specific needs, such as instructional improvement, organizational change, publications, and curriculum planning are available through the bureau. The primary objective of the bureau is service, and research plays a fundamental role in the extension of this objective.

## Center for Study of Higher Education

Established in 1971, the Center for the Study of Higher Education is a research and service unit of The College of Education. Its areas of concern include basic skills and developmental study, integrating career education and liberal learning, education for diverse adults, individualized education and experiential learning, core curricula, interdisciplinary and area studies, higher education for the handicapped and cost-effectiveness research. The center provides consultation, a resource center for pertinent literature, conferences and workshops for colleges and universities of the mid-South region and nation. Center faculty members hold joint appointments in the center and in the departments which offer graduate studies in higher education. Through this combination of service, research and teaching, the center staff brings focus on higher education for the graduate students in the departments who are studying in that area.

## The MSU-Duration Children's Program

The MSU-Duration Children's Program (MSU-DCP) is for preschool children ages infancy through five years. The student body is heterogeneous and includes a program to mainstream handicapped children into the normal education process. MSU-DCP utilizes the resources of various departments and units both within and outside the College of Education, as well as the services of the members of the Duration Club. It is committed to the continuous development of innovative and effective program models for serving the needs of preschool children. The program is administered by the College of Education, and has an advisory board of governors which includes representatives of the community, the Duration Club and various academic departments. MSU-DCP is a non-profit instititution. Tuition charges are determined by the cost of operation, admission is open, and acceptance is determined by date of application.

Applications are obtained from the Director of the MSU-DCP.

## Division of Professional Laboratory Experiences

This division is a coordination unit for all professional laboratory experiences ranging from observation to full-time internships, undergraduate and graduate. The division coordinator serves as a liaison between the college and those organizations and agencies used by the college to provide laboratory experience for students and faculty.

## University Campus School

The University Campus School, adjacent to The College of Education building, is a public school comprising grades 1 through 6, operated by the University as a part of the public school system of the City of Memphis. It offers a broad program of training for approximately 500 students. This school also serves the teacher education program as a laboratory where varied opportunities are offered University students to study children, to study the school program, and to participate in teaching activities.

## ADMISSION

Requirements for admission to The College of Education are those set up for the University as a whole; see section 2 , Admission to the University.

## Admission to the Teacher Education Program

Students who wish to prepare themselves for careers as teachers must make formal application for admission to the Teacher Education Program. Applications cannot be considered until the student has completed a minimum of one and one-half years of college work to the satisfaction of the faculty of The College of Education. Applications should be filed no later than the second semester of the sophomore year. If a student does not file an application during the second semester of his sophomore year, he MUST file one before the end of the first semester of the junior year and prior to enrolling in EDPS 3121. Students who transfer to MSU with 40 semester hours or more must file an application during their first semester of residence and prior to enrolling in EDPS 3121.

The following factors will be considered by the screening committee in determining a student's eligibility for admission to the teacher education program:

1. Academic aptitude - acceptable scores on tests used for admission to MSU.
2. Academic achievement - quality point average of 2.25 in protessional education, 2.25 in the teaching endorsement(s), and 2.25 overall. In addition, the student will be required to pass specified basic skills tests in areas as prescribed by the Tennessee State Board of Education and by The College of Education. Memphis State University. (Information on these
tests and the required scores is available from the Assistant Dean for Student Personnel Services.)
3. Proficiency in English - quality point average of 2.00 in all English courses completed or at least a grade of "C" in English 1101 and 1102.
4. Speech and hearing - acceptable scores on tests administered by Memphis State University Speech and Hearing Center.
-5. Health
*6. Social adjustment (Any student may be recommended by the College of Education for a psychological assessment provided by the MSU Psychological Services Center and any student in the Teacher Education Program may volunteer to participate in the psychological assessment procedure. The student will have the option of seeking an assessment from a professional who is not affiliated with the University.)
*7. Communication skills
-8. Interest in teaching
-9. Desire to work effectively with students
5. Completion of 36 semester hours of the 45 semester hours in the general education program.
6. Completion of at least 9 semester hours in the major teaching endorsement.
7. Completion of EDFD 2011 and/or EDPS 2111 [or equivalent(s)].
8. Evidence of satisfactory performance in an early related field experience.
9. Specific recommendations from faculty members professor under whom applicant completed EDFD 2011 or EDPS 2111 and professor under whom applicant has completed a course in the major endorsement, as well as the advisor.
10. Transfer student who transfers 40 or more semester hours to have recommendation from former college or university advisor, instructor, department chairman, or other official.
*Information on factors 5-9 should be submitted by the student, by staff members, and by personnel in appropriate offices and centers.

Once admitted to the teacher education program, the student must maintain the standards required for admission. If the student falls below any of these standards, his name may be removed from the file of students admitted to the Teacher Education Program. He may be readmitted to the Teacher Education Program when all of the standards are met.

In order to be graduated and certified to teach, a student must (1) meet all standards established for admission to the teacher education program, (2) make formal application for and be admitted to that program, (3) complete all requirements for certification, and (4) complete all degree requirements in the college of the University in which he is enrolled.

All graduates of The College of Education must be qualified for a teaching certificate with the exception of those in the following programs which are not designed for a career in teaching: Home Economics in the Department of Home Economics; Recreation and Park Administration in the Department of Health, Physical Education, and Recreation; and Rehabilitation Education in the Department of Special Education and Rehabilitation.

Students must be admitted to the Teacher Education Program prior to enrolling for student teaching. Students who enroll for student teaching for the fall semester should have been admitted by the end of the immediately preceding spring semester. Students who enroll for the spring semester should be admitted by the end of the immediately preceding summer session. [EXCEPTIONS: (1) Stu-
dent with low grade(s) - A student who has filed an application for admission to the teacher education program but has not been admitted by the end of the immediately preceding spring semester or summer session because of low grades, will be allowed two weeks following the end of the semester or session to submit evidence that grades then meet the requirements of admission. (2) Transfer student - A student who transfers from another college or university may, if enrolled for a minimum of twelve hours, apply for admission to the teacher education program during his first semester here. If he is admitted to the teacher education program that semester and if he meets all other requirements, he may be admitted to student teaching the following semester.]

Application forms for admission to the teacher education program should be obtained from Room 215, Ball Education Building. For a detailed explanation of all requirements the student should consult with the College of Education General Advisor.

## Directed Student Teaching

Directed student teaching, offered during the fall and spring semesters in cooperating schools, provides opportunities for observation of good teaching practices and for practical teaching experiences under the direction of supervising teachers.
A limited program of student teaching for in-service teachers is offered through the summer session. [In-service teachers are people who meet one of the following criteria: a) completed a successful significant teaching experience in an elementary or secondary school with state and/or regional accreditation; or b) possess a valid professional certificate and are adding an additional certification for which student teaching is required.] Information concerning the summer program, including requirements for enrolling, may be obtained from the director of student teaching. Application should be filed by April 1 immediately preceding the summer session during which student teaching is desired.

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 of Professional Laboratory Experiences.

Students with a major in Early Childhood Education ( $\mathrm{K}-3$ ) are required to enroll for a fifteen hour professional semester during the senior year. This professional semester includes student teaching, divided between primary grades and Kindergarten, and a oneweek academic marathon.

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

All teacher education students must observe a professional semester when they are enrolled in student teaching. During this semester, only professional courses will be taken. The professional semester for student teachers may include the following courses:

Elementary Education: Methods: ELED 4243; Student teaching: ELED 4821
KIndergarten: Student Teaching: ELED 4811. Student teaching in elementary and kindergarten may be taken during the same semester.
Early Chlldhood Education (K-3): Student teaching ELED 4821 and ELED 4811. NOTE: Both must be taken during the senior year.
Secondary Educatlon: SCED 4441 and appropriate elective in professional education, if not already completed; Student teaching: SCED 4841.
Distrlbutive Educatlon: DTED 4630, 4641; Student teaching: DTED 4871.
Speclal Educatlon: Student Teaching: SPER 4541. NOTE: Student Teaching in Special Education and in Elementary or Secondary Education may be done during the same semester.
Grades in student teaching are reported as "S" (satisfactory) or "U" (unsatisfactory).

Requirements for enrolling for student teaching are as follows:

1. Filing of application with the director of student teaching during the semester prior to the one in which the student teaching is to be done. Applications for student teaching to be done in the fall semester must be filed by March 1; for the spring semester by October 1 .
2. Admittance to and good standing with the Teacher Education Program. (See Admission to Teacher Edu-
cation Program, at the beginning of this section.)
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. An over-all average of at least 2.25 ; an average in the endorsement area(s) of at least 2.25 ; an average of 2.25 in all professional education courses.
6. Completion of EDFD 2011, EDPS 2111, 3121, and SPER 2000.
7. Completion of ELED 3241, 3251, 3261, 3271, 4242, and CIED 3301,4344 for those preparing to teach in elementary schools; ELED 2211 and 4212 for kindergarten; or the appropriate secondary methods course(s) for those preparing to teach in secondary schools.
8. Completion of either the elementary or secondary endorsement(s) is expected. Exceptions must be approved by the Director of Professional Laboratory Experiences after consultation with the major advisor and department chairperson.
9. Approval by the applicant's advisor and by the director of student teaching.

RESIDENCE REQUIREMENTS

Residence requirements in The College of Education are the same as those of the University as explained in detail in section 6, Graduation from the University.

DEGREE REQUIREMENTS

## Accreditation

The College of Education holds membership in the American Association of Colleges for Teacher Education. Its undergraduate programs through the doctor's degree for the preparation of teachers and related school personnel are fully accredited by the National Coun-
cil for Accreditation of Teacher Education NCATE).

## College Honors Program

The College of Education Honors Proram is intended to provide opportunities or students of junior standing who seek o demonstrate excellence in academic achievement. It offers a series of specifically designed honors sections and courses from which 18 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.

## Degrees Offered

The College of Education offers the Bachelor of Science in Education, Bachelor of Science in Home Economics, and the Bachelor of Music Education degrees.

To qualify for a degree from The College of Education, the student must complete 132 semester hours of which at least 45 must be upper division hours and a minimum of 60 hours must be of liberal content. The quality point average requirements for those degree programs leading to teacher certification include the following: a cumulative average of at least 2.25; a minimum average of 2.25 for all credit earned at Memphis State University, excluding all credit transferred from other institutions; and a minimum average of 2.25 in all courses attempted in each major or minor endorsement area; and an average of at least 2.25 in all professional education courses, required or elective. The degree requirements for those majors which do not lead to teacher certification include the following required quality point averages: a cumulative average of at least 2.0 ; a minimum average of 2.25 in all courses attempted in the major field; and an average of at least 2.25 in all professional education courses, required or elective.

Courses in the following fields will meet the liberal content requirement: anthropology, art (non-applied), biology, chemistry, economics, English, geography, geology, history, journalism (nonapplied), languages, mathematics, music (non-applied), philosophy, physics, political science, psychology, sociology, and speech. The following courses offered in The College of Education will meet this requirement: EDPS 2111 and EDFD 4012 ; HLTH 1102 and 1202; HMEC 1101 , 1104, 2101, and 2202.

Course requirements for all degrees include the successful completion of the general education program, physical education activity courses, and a major in The College of Education. Programs leading to teacher certification include two additional components: the professional education program and endorsement in one or more teaching areas. Majors in Home Economics (Dietetics, Merchandising, and Food Administration), Recreation and Park Administration, and Rehabilitation Education complete only those professional education courses specified
in their programs and do not complete an endorsement since these majors are not intended to satisfy teacher certification requirements. These requirements are outlined in detail in the sections which follow.

## I. The General Education Program

 (45 semester hours)(Courses taken to meet the requirements of this section may, if applicable, be used to meet the requirements of Section $V$ below)
English ( 12 hours): ENGL 1101. 1102 , and any two of the following: 2101, 2102, 2103, 2104, 2105, 2106.
Health and Personal Development: HLTH 1102, and one of the following: HMEC 1101, PSYC 1101.
Humanities: Elective from one of the following: art (nonapplied), foreign languages (2000 level or above), music (non-applied), and philosophy.
Speech: COMM 1211, 1311, 1780, 2911 or THEA 1411; COMM 2911 is recommended for elementary or early childhood certification.
Natural Sclences: 9 semester hours (including one twosemester laboratory sequence) in two of the following
sciences: biology, chemistry physics, earth sciences 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.)
Note: Laboratory sequences possible in earth sciences are GEOG 1101 and 1102, or GEOL 1101 and 1201. or GEOG 1101 and GEOL 1101 .
Soclal Sclences: HIST 2601, 2602 ( 6 hours), and an elective from one of the following: anthropology, economics, geography (other than the earth science courses listed above), political science, and sociology.
Mathematics: ( 3 semester hours) MATH 1181 for elementary, early childhood or special education certification; MATH 1181 or any higher-numbered mathematics course for secondary certification.

## if. The Professional Education <br> Program (30-45 hours)

A. Core courses: EDFD 2011, EDPS 2111, 3121; SPER 2000.
B. Courses in one or more of the following groups according to the area(s) of certification desired:

1. FOR THE ELEMENTARY CERTIFICATE: ELED 3241 , $3251,3261,3271,4242,4243,4821$ ( 9 hours). CIED 3301,4344 , for a total of 45 hours: OR Field-Based Program: specific course requirements are to be completed in three sequential semester blocks as ELED 3251,3261 3271, CIED 3301; BlockIII - ELED 4821 ( 9 hours). CIED 4344 ; for a total of 45 hours.
2. FOR THE EARLY CHILDHOOD (K-3) CERTIFICATE: ELED 3412, 4212, 4242, 4821 ( 6 hours) and 4811 ( 9 hours) for a total of 36 semester hours.
3. FOR ENDORSEMENT IN DISTRIBUTIVE EDUCATION: MAJOR-DTED 3010, 4630, 4641, 4871 ( 9 hours) and one education elective applicable for secondary teachers, for a total of 33 semester hours.

MINOR-DTED 4630, 4641, 4871 ( 6 hours)
4. FOR THE SECONDARY CERTIFICATE: SCED 4441 , 4841 ( 9 hours), appropriate secondary school methods course(s), and one elective applicable for secondary school teachers, for a total of 30 semester hours. Selected MUSE courses may be used to satisfy the secondary education elective for students completing a major endorsement in Music Education. For a listing of approved courses consult the College of Education General Advisor.
5. FOR SPECIAL EDUCATION CERTIFICATE. SPER 3012, 4012, 4541 ( 9 hours), and ELED 3241, 4242 . for a total of 33 semester hours.

A student may elect to obtain an endorsement in either elementary or secondary education which would require the professional education and content courses for that area(s). A student obtaining an endorsement in special education and elementary or secondary education is required to complete six (6) semester hours of student teaching in special educatıon (SPER 4541) and six (6) semester hours in eıther elementary (ELED 4821) or secondary education (SCED 4841). The special education student completing requirements for a secondary certificate may use the method course SPER 3012 to satisfy the secondary elective.

NOTE: Students will be required to take appropriate specialized methods course in each endorsement area, major or minor. In several endorsement areas, additional professional courses are required. The following list identifies the methods course and additional professional education courses required for each subject area.
Art: SCED 3321 (same as ART 4421)

Business: For major endorsement, SCED 3378 and 3379 (for alternative 1); SCED 3376 and 3377 (for alternative 2) For minor endorsement, SCED 3376 and 3377 (for option 1): two courses from SCED 3377, 3378, 3379 (for option 2); SCED 3379 and one course from 3376, 3377, 3378 (for option 3)
For specific endorsements, any one of the following: SCED $3376,3377,3378,3379$, the applicable courses depending on endorsements selected.
Driver Educatlon: No methods course is offered.
English: SCED 3341 . For major endor sement, SCED 4341 and CIED 4344 (additional requirements, one of which can be used to satisty the secondary education elective.)
Forelgn Language: SCED 3348
Health Instruction: HLTH 3102
Home Economics: (Vocational Home Economics): SCED 3383 Industrial Arts: SCED 3384 (same as VTED 4210).
Librarlan: No methods course is offered.
Mathematics: SCED 3351. An additional methods course, ELED 3251 is required for major endorsement and highly recommended for minor endorsement.
Mathematics and Physical Sclence: SCED 3351 and/or 3362.
Music: SCED 3322 (same as MUSE 4203)
Physical Education: PHED 3803
Psychology: SCED 3372
Sclence: SCED 3361 (biology), 3362 (chemistry, physics, general science, and earth and space science)
Soclal Studies: SCED 3371
Speech and Drama: SCED 3346

## III. Physical Education Activity

 CoursesTwo semesters of physical education activity courses; for exceptions and details see section 6, Graduation from the University, and the course descriptions for the Department of Health, Physical Education and Recreation and the Department of Theatre and Communication Arts in section 8, Description of Courses.

## IV. A Major in the College of Education

The student will choose one of the following majors offered in The College of Education. The specific courses required for the satisfaction of these majors are listed in the following pages.
Distributive Education
Early Childhood Education
Elementary Education
Health Education
Home Economics
Music Education
Physical Education
Recreation and Park Administration
Rehabilitation Education
Secondary Education
Special Education
Vocational Home Economics

## V. Specific Subject Endorsement

Students must complete requirements in at least one major endorsement area. The student may elect to complete requirements for more than one major endorsement or for a major endorsement and one or more minor endorsements. The minimum number of hours required for a major or minor endorsement varies according to the characteristics and needs of different subject areas.
Students will be required to take an appropriate specialized methods course in each endorsement area, major or minor. In several endorsement areas additional professional courses may be required as needed to
meet recommendations of various accrediting and professional agencies. Student teaching must be taken in the student's major endorsement area.
A quality point average of 2.25 in each endorsement is required. To be included in the computation are grades assigned in all courses attempted, required or elective, in each area of endorsement. Semester hours completed as electives in excess of the number of hours required in each endorsement shall be included. EXCEPTION: For endorsement in elementary education only the required courses shall be included.
(Courses taken to meet the requirements of Section I, above, may if applicable, be used to meet any part of the requirements of this section.)
A. Elementary Certiflcate ( 48 hours)

ART 3411: BIOL 2001 and 2002 ORBIOL 1200 and 1600 and 3050; GEOG 2301, 2311; HLTH 3306; LIBS 4111: MATH 1182, 2581 ; MUSE 3001; COMM 2911 or THEA 1411
PHED 3806. (This course is in addition to the required physical education activity courses.) One additional hour of physical education mandatory to meet certification requirements.
requirements. ${ }^{\text {PSCI 1031. 1032. NOTE: }}$ Students with adequate high school background in both chemistry and physics may take at least six semester hours in any combination from the areas of astronomy, chemistry, earth science, geology, or physics instead of PSCI 1031 and 1032 .

Social Science - Two courses ( 6 semester hours) from the following social sciences: cultural anthropology, economics, history (other than HIST 2601, 2602), political science, or sociology.

## B. KIndergarten through Grade 3 Endorsement

To add an endorsement in Kindergarten through Grade 3 to a certificate in elementary education (grades 1-9), the student must complete the requirements for the elementary certificate, and, in addition, must complete ELED 2211, 4212, and 4811.
C. Early Childhood Education (K-3)

The following program in early childhood education has been approved by the State of Tennessee as a special program. It does not meet requirements for certification in elementary education (grades 1-9), but is designed for the student who desires certufication in kindergarten through third grade only.
EARLY CHILDHOOD EDUCATION: Same as the following
areas of the major requirements: areas of the maןor requirements:

1. Supportive Content ( 30 hours)
2. Early Childhood Education ( $\mathbf{1 5}$ hours)
3. Area of Specialization ( $6-12$ hours).
4. Electives (5-11 hours)
D. Speclal Education

Major Endorsement (39 hours): Same as the requirements for the major.
Minor Endorsement ( 30 hours): Same as the requirements for the minor
Minor endorsement can be taken only when combined with a major endorsement area which is certifiable by the State of Tennessee.

## E. Llbrarian

Major Endorsement - Not available
Minor Endorsement ( 21 hours):
LIBS 4111, 4121, 4131, 4401, 4232, 4331. CIED 4301 For certufication as librarian, a student must complete all requirements for ether the elementary certificate (Grades 1-9) or the secondary certificate with a major endorsement in a subject area (Grades 7-12).
F. Elementary Physical Education (Grades K-9)

Major Endorsement ( 52 hours): Same as the requirements for the major concentration.
Minor Endorsement: (43 hours): Same as the requirements for the minor concentration.
G. Vocatlonal Certificates

1. DISTRIBUTIVE EDUCATION

Major Endorsement ( $33-36$ hours): Same as the requirements for the major.
Minor Endorsement (21-24 hours): Same as the requirements for the minor. Requires completion of a major endorsement (Grades 7-12).
2. VOCATIONAL HOME ECONOMICS

Major Endorsement ( 41 hours): Same as the requirements for the major.
The following optional certification areas require the completion of the major endorsement in vocational home economics in addition to the courses specified in the desired area(s). See concentration requirements a. Occupational Child Care Services ( 18 hours)
b. Occupational Food Services ( 18 hours)
c. Occupational Clothing Services ( 18 hours)
H. Certificates for Grades K-12

To receive a certificate for Grades 1-12 in the following areas of endorsement, the student must complete requirements for secondary certification.

1. ART EDUCATION

Major Endorsement (36-39 hours)
ART 1101 (OR 2101 and 2102), 1201, 1204, 1311,
$1314,2201,2313,3411,3421,4167,4168,4424$.
Minor Endorsement - Not available
2. HEALTH EDUCATION (Grades K-12)

Major Endorsement ( 43 hours): Same as the requirements for the major.
Minor Endorsement ( 33 hours): Same as the requirements for the minor.
3. MUSIC EDUCATION

Major Endorsement: ( $42-47$ hours)
Certification in music education requires the completion of (a) a group of basic courses and (b) a group of courses in at least one of two areas of emphasis.
a. Basic Courses ( 23 hours)

MUTC 1008, 1010, 1009, 1011, 2008, 2010, 3101 ( 14 hours)
MUSE 3700 ( 2 hours)
Music Elective ( 3 hours)
Music ensembles ( 4 hours of large ensembles)
b. Areas of Emphasls
(1) School Music (vocal emphasis) (19 hours) MUSE 4202, 4701 Applied Music (14 hours)
MUSE 1115
Piano - Class Instruction or Individual Lessons (4 hours)
Voice - Class Instruction or Individual Lessons (4
hours)
Additional individual lessons above the Preparatory Level in either Piano or Voice (4 hours)
(2) Instrumental Music (24 hours)

MUSE 1103, 4204, 4700
Applied Music (18 hours)
MUSE 1101, 1104, 1109,110
MUSE 1101, 1104, 1109, 1110
Piano - Class Instruction or Individual Lessons (4
hours) hours)
Voice -
hours) Class Instruction or Individual Lessons (2 hours)
Individual lessons on one band or orchestral instrument of major emphasis (6 hours)
Minor Endorsement - Not available

## I. Secondary Certificate

1. BUSINESS EDUCATION

Students seeking endorsement in business education must complete a business education core (a) of 18 semester hours, and complete either the requirements for a major endorsement (b) or a minor endorsement (c). Endor sement in specific subjects is optional (d), but cannot be taken without completing the major or minor endorsement requirements. For computation of the quality point average, each endorsement in business includes the 18 semester hours of basic requirements
a. Business Education Core ( 18 hours)

ACCT 2010, 2020; ECON 2110, 2120; MGMT 1010 OR FIR 3011; OFAD 3510 OR MATH 2291.
b. Major Endorsement (21-22 hours plus 18 hour core) NOTE: OFAD 3510 and MATH 2291 are both required for major endorsement.

## Choose alternative 1 or 2

1. ACCT 3010 or 3110; 2720; MKTG 3010 and 3410 OR ECON 3610 and FIR 3410; FIR 3130; HMEC 4103 ; MGMT 1010 and FIR 3011 are both required.
2. Six hours in shorthand, including one course in advanced shorthand.
Six hours in typewriting, including one course in advanced typewriting. advanced typewriting.
OFAD 4270; 4320 OR 4410
c. Minor Endorsements (10-18 hours plus 18 hour core)
3. Secretarlal Practice ( 18 hours)

OFAD 4270; 4320 OR 4410
Six hours in shorthand, including one course in advanced shorthand
Six hours in typewriting, including one course in advanced typewriting.
2. Bookkeeping - General Business - Typewriting ( 10 hours)
ACCT 2720, 3010 or 3110
Six semester hours in typewriting, including one course in advanced typewriting NOTE: MATH 2291. MGMT 1010 and FIR 3011 must be added, if not taken as part of core.
3. Economics - Consumer Education - General Business - Business Law ( 15 hours) ECON 3610; FIR 3130, 3410 ; HMEC 4103 NOTE: MATH 2291, MGMT 1010 and FIR 3011 must be added, if not taken as part of core.
d. Specific Business Endorsements (18 hour core must also be completed)

1. Bookkeeping ( 4 hours)

ACCT 2720; 3010 OR 3110
2. Business Arlthmettc ( 3 or 6 hours)

MATH 1211 and 2291 (may be included in core)
3. Business Engllsh (3 hours)

OFAD 3510 (may be included in core)
4. Business Law ( 3 or 6 hours)

FIR 3011 (may be included in core), 3130
5. Business Machines (3 hours)

OFAD 4270
6. Consumer Education ( 3 hours)

HMEC 4103
7. Economics ( 6 hours) ECON 3610, FIR 3410
8. General Business ( 6 hours)

FIR 3011 (may be included in core) OR 3130 Mathematics, 3 hours chosen in conference with advisor
NOTE MGMT 1010 must be added, if not taken
as part of core. as part of core
9. Otice and Clerical Practice (3 hours)

OFAD 4320 OR 4410
10. Salesmanship ( 6 hours)

MKTG 3010. 3410

1. Secretarlal Practice ( 15 hours) Endorsement in Office and Clerical Practice.
Shorthand and Typewriting
2. Shorthand ( 6 hours)

Six hours in shorthand, including one course in
3. Typanced shorthand
3. Typewriting ( 6 hours)

Six hours in typewriting, including one course in
advanced typewriting advanced typewriting
2. DRIVER EDUCATION

Major Endorsement - Not available
Minor Endorsement - 23 semester hours
SAFE 2102, 2202, 4335, 4336, 4337, 4338; CIED 4301. Electives - 6 semester hours selected from safety education courses.
3. ENGLISH

Major Endorsement ( 36 hours)
12 hours freshman and sophomore level courses: ENGL 1101, 1102, and any two of the following: 2101 , 2102, 2103, 2104, 2105, 2106; 24 upper division hours: ENGL 3321 OR $4321 ; 3322$ OR $4322 ; 4232$ OR $4233 ; 3501 ; 4501 ; 4602 ; 3211$ OR 3212 OR
$3214 ; 3221$ OR 3222 OR 3223 OR 3224
Minor Endorsement ( 30 hours)
12 semester hours freshman and sophomore level 12 semester hours freshman and sophomore level
courses (same as required for major endorsement) courses (same as required for major endorsement)
18 upper division hours: ENGL 3321 OR 4321:3322 18 upper division hours: ENGL 3321 OR 4321; 3322
OR 4322; 4232 OR 4233; 3501 OR 4501; 4602; and OR 4322; 4232 OR 4233; 3501 OR 4501; 4602; and
any one of the following: $3211,3212,3213,3214$, any one of the following
$3221,3222,3223,3224$
4. FOREIGN LANGUAGES
4. FOREIGN LANGUAGES
Endorsement may be obtained in French, German,

Endorsement may be obtained in French, German,
Latin, Russian and/or Spanish. Two or more high Latin, Russian and/or Spanish. Two or more high
school units of one foreign language may be used in lieu school units of one foreign language may be used in lieu of freshman level courses in that language. Credit in any
of the lower division courses may be earned by profiof the lower division courses may be earned by profi-
ciency. Electives should be selected in consultation ciency. Electives should be selected in consultation with the advisor
a. French

Major Endorsement (33 hours)
Lower division French, or the equivalent ( 12 hours) FREN 3301, 3302, 3411, 4301, 3401 or 4306 , elective ( 3 hours)
Minor Endorsement (24 hours)
Lower division French, or the equivalent ( 12 hours) FREN 3301 plus three upper division courses selected from the following: FREN 3302, 3401,
$3411,4301,4305,4306$ $3411,4301,4305,4306$
b. German

Students electing a major endorsement in German must complete requirements for another major endorsement or minor endorsement in a complementary teaching area.
Major Endorsement ( 33 hours)
Lower division German, or the equivalent (12 hours)
GERM 3301, 3302, 3411 or 3412,4501 , electives
( 9 hours) ( 9 hours)
Minor Endorsement (24 hours)
Lower division German, or the equivalent (12 hours)
GERM 3301 plus three upper division courses selected from the following: GERM 3302,3411 . 3412, 4501
c. Latin

Students electing a major endor sement in Latin must complete requirements for another major endorsement or minor endorsement in a complementary teaching area.
Mayor Endorsement (33 hours)
Lower division Latin, or the equivalent ( 12 hours) 21 upper division hours selected from the following: LATN 3111, 3211, 3811, 3912, 4411, 4611, 4711 , and Classics $4791^{*}$ (6 hours) *(Acceptable only when accompanied by the instructor's written verification that the content is Latin language.)
Minor Endorsement ( 24 hours)
Lower division Latio, or the equivalent ( 12 hours) Four upper division courses, selected from the following: LATN 3111, 3211, 3811, 3912, 4411, 4611,4711
d. Russlan

Students electing a major endorsement in Russian must complete requirements for another major endorsement or minor endorsement in a complimentary teaching area.
Major Endorsement (33 hours)
Lower division Russian or the equivalent ( 12 hours Lower division Russ
RUSS 3301,3302 .)
Minor Endorsement (24 hours)
Lower division Russian, or the equivalent (12 semester hours)
RUSS 3301 plus three upper division courses
selected from the following: RUSS 3302, 3411,
selected from the following, R
$3412,3441,3442,3442,3444$
e. Spanish

Major Endorsement ( 33 hours)
Lower division Spanish or the equivalent (12
hours), 3300 ( 6 hours), $3410,3510,4302$, on
linguistics course ( 3 hours in consultation with advisor), elective (3 hours)
Minor Endorsement ( 24 hours)
Lower division Spanish or the equivalent (12 hours),

SPAN 3300 ( 3 hours) plus three upper division courses selected from the following: SPAN 3300 ( 3 hours), $3410,3510,4302$, one linguistics course ( 3 hours in consultation with advisor)
5. INDUSTRIAL ARTS EDUCATION

Students seeking endorsement in Industrial Arts should take the following courses, which may be used to fulfill General Education requirements:
MATH 1213, CHEM 1051, PHYS 1111 and 1112.
Major Endorsement (46 hours)
TECH 1511, 1611, 1711, 1811, 1821, 2555, 3350,
$3601,3718,4355$, VTED 1011, Six semester hours $3601,3718,4355$, VTED 1011. Six semester hours
from the following: ART 2213, 2221 or JOUR 2520 . Six semester hours electives in technology.
Minor Endorsement ( 40 hours)
TECH 1511, 1611, 1711, 1811, 1821, 2555, 3350,
3601, 3718, 4355, VTED 1011 . Six semester hours from the following: ART 2213,2221 or JOUR 2520. Completion of the specified courses required for the certification in industrial arts. Additional certification in the following single subjects may be earned by completing 3 additional hours in each area desired: Drafting (TECH 2511 or 2512 is recommended) Electricity/Electronics (TECH 2821 or 3841 is recommended)
Metals (TECH 3718 is recommended)
Plastics (TECH 3410 is recommended)
Wood (TECH 2611, 2651, or 3611 or 3631 is recommended

## 6. MATHEMATICS

Major Endorsement ( 32 hours)
MATH 1213; 1321, 2321
One course in each of the following areas:
Geometry (MATH 2581 is recommended)
Probability (MATH 4631 is recommended)
Computer Programming (COMP 4001 is recommended)
Theory of Numbers (MATH 4221 is recommended) History of Mathematıcs (MATH 4151 is recommended)
Six hours from the following: MATH 2322, 2611. $3241,4261,4111,4171,4241,4350,4411,4611$

## Minor Endorsement ( 20 hours)

MATH 1213: 1321,2321 , and nine hours from the
following: MATH 2322, 2581, 2611, 3241, 4151,
$4171,4221,4241,4261,4350,4411,4611,4631$; COMP 4001,
If a student's performance on the Mathematics Department placement test makes it possible for him to receive credit for MATH 1213, then he is advised to pay the
required fee (\$15.00) and get the credit for the course. NOTE: Students in the Honors Program in Mathematics may use MATH 1401, 1402, 2401, and 2402 to satisfy the following requirements: MATH 1213,1321, 2321, 2611 . following
and 3241 ,
7. MATHEMATICS AND PHYSICAL SCIENCE

Major Endorsement ( 61 hours)
Requires completion of minor endorsements in Requires completion of minor endorsements in
mathematics, chemistry, and physics and two methmathematics, chemistry, and physics and two meth-
ods courses (one each in mathematics and in physiods courses (one each
cal science.
MATH 1213, 1321, 2321, and nine hours from the following: MATH 2322, 2581, 2611, 3241, 4151, following. MATH
$4171,4221,4241,4411,4611$, COMP 4001.
Chemistry: (20 hours)
CHEM 1111, 1112, 3301, 3302, 3311, 3312, 3211, 3201.

Physics: (21 hours)
PHYS 1811 . 1812 (or
PHYS 1811, 1812 (or an approved physics elective), 2111, 2112 (Prerequisite: MATH 1212), 3010, and one 3 hour elective in physics chosen in consultation with major advisor.
8. PHYSICAL EDUCATION (Secondary) Grades 7-12

Major Endorsement ( $57-58$ hours): Same as the
requirements for the major concentration.
Minor Endorsement (45-46 hours): Same as the requirements for the minor concentration.
9. PSYCHOLOGY

Major Endorsement - Not available
Minor Endorsement - (21 hours)
A. PSYC 1101; PSYC 2302 or SOCI 3322; PSYC 3106 or SOCl 3701
B. Six to twelve hours chosen from the following areas: Developmental Psychology (PSYC 3103); Abnormal Psychology (PSYC 3102); Personality Dynamics (PSYC 3101); Child Psychology; Adolescent Psychology (EDPS 4112 or SOCI 4760).
C. Three to six hours of electives: The electives may be selected from any undergraduate courses taught in the Department of Psychology; taught in (EDPS): or SOCI 4760. The student may not count (EDPS): or SOCl 4760 . The student may not count
both PSYC 3106 and SOCI 3701 , or both EDPS 4112 and SOCI 4760 , in meeting endorsement 4112 and SOCl 4760 , in meeting endorsement requirements. Courses taken in Educational Psy-
chology (EDPS) may not be counted toward fulfillchology (EDPS) may not be counted toward fulfillrequirements.

## 10. SCIENCE <br> a. Biology

Major Endorsement ( 35 hours)
BIOL $1200 \quad 1600 \quad 2000$ 305
BIOL 1200, 1600, 2000, 3050, 3070, 3100, 3500; CHEM 1111, 1112 (Corequisite: MATH 1211, 1212, or 1321)
Minor Endorsement (23 hours)
BIOL 1200, 1600, 2000, 3070; CHEM 1111.1112 (Corequisite: MATH 1211, 1212, or 1321)
b. Chemistry

Major Endorsement ( 32 hours) CHEM $1111,1112,3301,3302,3311,3312,3201$, $3211,3401,3407$; PHYS 2111, 2112 (Prerequi-
site MATH 1212)
Minor Endorsement ( 20 hours)
CHEM 1111, 1112, 3301,3302, CHEM 1111, 1112, 3301, 3302, 3311, 3312, 3201,
3211 3211
c. Physles

Major Endorsement ( 32 hours) PHYS 1811, 1812, 2111, 2112 (Prerequisite:
MATH12), CHEM1111, 1112
Minor Endorsement (25 hours)
PHYS 1811,1812 (or an app
PHYS 1811,1812 (or an approved physics elective), 2111,2112 (Prerequisite: MATH 1212), 3010
CHEM 1111, 1112 CHEM 1111, 1112
d. General Sclence

Major Endorsement (37 hours) BIOL 1200, 1600, 2000, 3070; CHEM 1111, 1112 (Corequisite: MATH 1211, 1212 or 1321); PHYS 1811, 2111 and 2112 (Prerequisite: MATH 1212) Earth Science elective ( 3 hours)
Minor Endorsement ( 23 hours)
BIOL 1200, 1600; CHEM 11111,1112 , (Corequisite: MATH 1211,1212 or 1321 ); PHYS 2111 (Prerequisite: MATH 1212); Earth Science elective (3 hours)
e. Earth and Space Sclences

Major Endorsement ( 34 hours)
GEOL 1101, 1201, 2312, 3100; PHYS 1811; GEOG GEOL $1101,1201,2312,3100$;
GEOL 1101, 2312, 3100; PHYS 1811; GEOG 1101, GEOL, 4131,23
11. Economics, Geography, Government, and Soclology
a. Economics, Geography, Government, and Soclology
Major Endorsement ( 30 hours) 24 hours of work in Major Endorsement ( 30 hours) 24 hours of work in
the designated major area, selected in consultation with advisor, of which at least 18 hours must tion with advisor, of
be upper division.
Up to 6 hours may be taken in cognate social Science areas supportive to the major (excluding HIST 2601, 2602), and selected in consultation with advisor
NOTE: These four areas may be selected as major endorsement areas only if taken in combination with a major or minor endorsement in history or with a major endorsement in some other teaching
area of endorsement. Minor Endorsement (18
Minor Endorsement (18 hours) 12 upper division hours in the designated major area, selected in consultation with advisor. Up to 6 hours may be taken in cognate social science areas supportive to the minor (excluding HIST 2601, 2602), and selected in consultation with advisor.
b. History

Major Endorsement (36 hours)
HIST 2601, 2602
European and/or world history courses ( 6 hours) Upper division history courses, selected in consultation with advisor ( 12 hours)
Electives, selected in consultation with advisor (12 hours), may be additional history courses, or in the following areas:
Up to 6 hours may be taken in historical courses which do not have to be offered by the History Department (excluding History of Education).
Up to 6 hours may be taken in cognate social science areas supportive to the major (economics. sociology, political science, geography, anthropolOgy).
Minor Endorsement ( 24 hours)
HIST 2601, 2602
European and / or world history courses ( 6 hours) Upper division history courses, selected in consultation with advisor ( 6 hours)
Electives, selected in consultation with advisor (6 hours)
These electives may be taken in historical courses which do not have to be offered by the History Department (excluding History of Education), or in
cognate social science areas supportive to the minor (economics, sociology political science. geography, anthropology).
12. SPEECH AND DRAMA

Major Endorsement ( 36 hours)
COMM 1780, 1781, 2321, 2781 or 3322, 3341 or 4341, 4922; THEA 1411, 1561, 2530, 3521, 3542 Minor Endorsemen
Minor Endorsement ( 21 hours)
COMM 1780,1781,2321,4922
COMM 1780, 1781,2321,4922; THEA 1411, 1561.
4921 .

## REQUIREMENTS FOR MAJORS AND MINORS

## Curriculum and Instruction

The Department of Curriculum and Instruction offers majors and minors in elementary education and secondary education, and a major in early childhood education.

## ELEMENTARY EDUCATION <br> The Maror: ( 45 hours)

EDFD 2011; EDPS 2111.3121; and ELED 3241.3251, 3261 3271, 4242, 4243, 4821 ( 9 hours); CIED 3301, 4344, SPER The fol
The following must also be completed: (1) the requirements of general education, (2) the elementary endor sement.

## The Minor: Same as elementary education major

## SECONDARY EDUCATION

The Major: (30-33 hours)
EDFD 2011; EDPS 2111; 3121, SCED 4441, 4841; SPER 2000; appropriate secondary school methods courses, one 2000; appropriate secondary school methods courses, one
elective appropriate for secondary school teachers. The elective appropriate for secondary school teachers. The
requirements of general education and at least one major requirements of general education
endorsement must be completed.
The Minor: Same as secondary education major.

## EARLY CHILDHOOD

The Major: ( 36 hours)
EDFD 2011; EDPS 2111, 3121 ; and ELED $3412,4212,4242$,
4821 ( 6 hours), 4811 ( 9 hours), and SPER 2000.
The following must also be completed:

1. The requirements of General Education.
2. Supportive Content ( 30 hours)

SAFE 2102, humanities 3 hours (elective from applied art or applied music), MATH 1182 or 2581, science 3 hours (elective from biology or earth science plus science listed in General Education), social science six hours (elective from anthropology, economics, geography or sociology). from anthropology, econom
COMM 2911 or THEA 1411.
3. Early Childhood Education ( 15 hours)
3. Early Childhood Education (15 hours)
HMEC 2101 and 4101 ; ELED 2211, 3212, and 4411.

HMEC 2101 and 4101; ELED 2211, 3212
4. Area of Specialization ( $6-12$ hours)
A minimum of six hours and a maximum of 12 hours constitute a specialization area. See academic advisor for constitute a specialization area. See academic advisor for
areas requiring more than six hours. Examples of areas of areas requiring more than six hours. Examples of areas of tion, library service, mathematics, child development, geography, biology, special education, physical educageography, biology, special education, physical educa-
tion, health, reading and language, psychology, and sociology.
ol
5. Electives (5-11 hours)

At least nine (9) upper division hours must be included in
the area of specialization and / or from the electives.

## Health Physical Education, and Recreation

Majors and/or minors are offered in (1) health, (2) physical education, and (3) recreation and park administration. The recreation and park administration major will not satisfy requirements for teacher certification or for any endorsement area in The College of Education.

## PHYSICAL EDUCATION

The Major: (Choose concentration in Elementary or Secondary Physical Education)
Concentration in Elementary Physical Education: ( 52 hours) PHED 1103, 1581, 1621, 1713, 1813, 1922, 1931, 2003, $2903,3303,3403,3703,3816,3826,3836,3846,4204$ One two-hour elective in an individual activity. BIOL 1631, 1632
Concentration in Secondary Physical Education: (57-58 hours)
SAFE 2102 or 3502; PHED 1103, 1502, 1572, 1621, 1713 , $1813,1923,2003,2903,3203,3303,3403,3503,3703$, 4204. 4503

For Men: PHED 1431, 1941, and two of the following: PHED 2103, 2203, 2303, 2403, 2503, 2803
For Women: PHED 1821, 1921, 3103 BIOL 1631, 1632
The Minor: (Choose concentration in Elementary or Secondary Physical Education)
Concentration in Elementary Physical Educatlon: ( 43 hours) PHED 1103, $1581,1621,1713,1813,1922,1931,2903$, 3303, 3403, 3703, 3846, 4204; and one of the following: PHED 3816, 3826, 3836
One two-hour elective in an individual activity.
BIOL 1631, 1632
Concentration in Secondary Physical Education: (45-46 hours)
PHED 1103, 2903, 3303, 3403, 3703, 4204, 4503
Choose alternative A or B
A. Two of the following: PHED 2103, 2203, 2303, 2403, 2503, 2803
B. One of the following: PHED 3103, 3203, 3503

Eight activity courses:
For Men: PHED 1431
For Men: PHED 1431, 1502, 1572, 1621, 1713, 1813, 1923. 1941
$1821,1921,1923$ 1502, 1572, 1621, 1713, 1813, 1821, 1921, 1923
BIOL 1631, 1632
HEALTH EDUCATION (GRADES K-12)
The Major: ( 43 hours)
HLTH 1102, 1202, 1302, 3202, 4102, 4702; SAFE 2102, 2202 ; BIOL $1631,1632,3400$ or 1400 , CHEM 1000 , HMEC 2202.

Electives ( 3 hours) to be chosen from the following academ-
ic areas in consultation with advisor: biology, educational foundations, elementary education, guidance, health education, home economics, physical education, psychology, secondary education, sociology, and special education. Courses required in general education and professional education programs cannot be used to satisprofessional education progr
The Minor: ( 33 hours)
HLTH 1102, 1202, 1302, 3202, 4102; SAFE 2102; BIOL $1631,1632,3400$ or 1400 ; HMEC 2202
Electrves ( 3 hours) to be chosen from the areas listed for major endorsement electives.
NOTE: It is recommended that CHEM 1000 be taken to satisfy the second area of science required in General
Education.
RECREATION AND PARK ADMINISTRATION
The Major: General Education Program ( 61 hours)
ENGL 1101, 1102, and any two of the following: 2101, 2102, $2103,2104,2105,2106$ ( 12 hours)
Natural Science: 9 hours (including one two-semester laboratory sequence) in two of the following sciences: biology chemistry, physics, earth sciences (defined for purposes of this requirement to include GEOG $1101,1102,4111,4121$, 4122,4131 , and any course in geology.)
HIST 2601, 2602
PSYC 1101, 1102
SOC 1111, elective ( 3 hours)
SOCI 1111, elective (3
MATH 1181, or any higher number
Humanities: one course from two of the following areas: art, music, drama
COMM 1211 or 1311 or THEA 1411
Journalism elective ( 3 hours)
Physical Education Activities ( 4 hours)
Related Areas of Study ( 12 hours)
HLTH 1102: SAFE 2102
EDPS 2111, 3121
Professional Areas of Study ( 38 semester hours)
RECR 2105, 3105, 3205, 3305, 3405, 3605, 3705, 4105 4405, 4505, 4605 ( 9 hours)
Electives ( 21 hours) to be selected by student and advisor to strengthen special interest areas as follows: Public Recreation and Parks, Outdoor Recreation. Therapeutic Recrea tion and Youth Organization.

## Department of <br> Home Economics and Distributive Education

A cooperative relationship exists with the Fashion Institute of Technology in New York City, whereby Home Econom-ics-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.

The major in Home Economics requires the completion of (1) core requirements and (2) the requirements for one of five concentration areas. These requirements are in addition to University requirements and required courses of The College of Education. All major subject matter courses must be completed before the professional semester required in the Merchandising concentration. Students in all five concentrations must complete the application for practicum by mid-term of the semester before taking the practicum. Students may obtain the form from the major advisor.

## HOME ECONOMICS

The Major:
Core Requirements: ( 20 hours)
HMEC 1100, 1101, 1104, 2101, 2202, 3405, 4100,4103 Concentrations
a. Dletetics ( 85 hours):

HMEC 2102, 3204, 3302, 3602, 4102, 4402, 4502, 4802; CHEM 1111,1112, 3301, 3302, 3311, 3312, 4511, 4512;

BHOL 1631, 1632, 3500; ECON 2110, 2120; MGMT 2710. 2750, 3110, 4210; EDPS 3121; ANTH 1200: MATH 1203
b. Food Administration ( 57 hours)

HMEC 2102, 3302, 3602, 3702, 3802, 4502, ACCT 2010, 2020: ECON 2110,2120 ; MGMT $2710,2750,3110,4210$, 4420; MKTG 3010, 3410, 4220.
c. Merchandising-Fashlon ( 51 hours):

HMEC 1105, 2005, 2205, 3004, 4405, 4600, 4705
Business Administration requirements ( 24 hours): ECON 2110; ACCT 2010; MKTG 3010, 3 hours from the B.B.A. Marketing major core (MKTG 3012, 3610, 4080, 4901): 9 additional hours in MKTG
d. Merchandising-Home Furnishing ( 54 hours) HMEC 2004, 3004, 3204, 3704, 4204, 4304, 4405, 4600, 4804
Business Administration requirements ( 24 hours): ECON 2110; ACCT 2010; MKTG 3010, 3 hours from the B.B.A. Marketing major core (MKTG 3012, 3610, 4080): 9 addiMarketing major core

## VOCATIONAL HOME ECONOMICS

Major: (41 hours)
Home Economics Core Requirements: HMEC 1100, 1101, $1104,1105,2101,2102,2202,3004,3204,3405,4100$, 4103, 4405 ; electives ( 6 semester hours which may be applied toward occupational certification)
The following optional concentration or certification areas require the completion of the major requirements in vocational home economics in addition to the courses specified in the desired area(s). Prerequisite: All occupatıonal major subject matter courses must be completed prior to internship.
a. Occupational Child Care Services ( 18 hours): HMEC $3393,4101,4301$; ELED 3212, 3412, 4411
b. Occupational Food Services ( 18 hours): HMEC 3302. 3393, 3602, 3702, 3802, 4502.
c. Occupational Clothing Services ( 18 hours): HMEC 2205. 3393, 4305, 4315, 4405, 4505.
NOTE: These requirements are in addition to University requirements and required courses of The College of Educarequir
tion.

## DISTRIBUTIVE EDUCATION

The Major: (33-36 hours)
ECON 2110, 2120; DTED 4621; MKTG 3010, MKTG elective (3 hours).
12 hours of electives in business administration and/or journalism directly related to the distributive education curriculum (to be chosen in consultation with advisor)
2 years of acceptable work experience in one or more marketing occupatıons OR HMEC 475 (or HMEC 4804) OR MKTG 4991 or other approved University supervised occupational experience practicum, plus one year of acceptable work experience. ( 4000 clock hours part time experience equals 2 years.)
The Minor: (21-24 hours) Requires completion of a major endorsement (Grades 7-12)
ECON 2110
MKTG 3010, MKTG elective ( 3 hours); HMEC 4600; 6 hours of electives in business administration and/or journalism directly related to the distributive education curriculum (to be chosen in consultation with advisor)
2 years of acceptable work experience in marketıng occupations OR HMEC 4705 (or HMEC 4804) or MKTG 4991 plus one year of acceptable work experience ( 2000 clock hours equal one year)

## Department of Special Education and Rehabilitation

The following programs lead toward certification in Special Education (grades K-12). The Department of Special Education and Rehabilitation offers a major and a minor in special education and a major in rehabilitation education.

## Honors Program:

1. Criteria for Admission

Upon completion of thirty semester hours, a student may obtain application forms from the department and file for acceptance into the Special Education and Rehabilitation Honors Program. The credentials of each applicant will be reviewed by the Honors Committee (to be determined by the department chairman), and will be evaluated for the following minımum requirements
A. An overall QPA of 3.25
B. A QPA of 3.5 in the major (SPER)
C. Two letters of reference from faculty (forms to be provided).
D. At least forty hours of service to exceptional persons,
paid or as a volunteer, and a letter of support from the supervisor(s) where the services were given.
Each applicant will be notified in writing of the Honors Committee's decision.
2. Criteria for Retention

Once the student has been accepted into the SPER Honors Program, the following standards must be maintained.
A. An overall QPA of 3.25
B. A QPA of 3.5 in the major (SPER)
C. A minımum grade of B in each honors course attempted. Specific details of the program may be obtained in the office
of the department chairman.

## SPECIAL EDUCATION

Major: $(39$ hours)
SPER $3003,3013,3014,3201,3401,3501,3516,3901$, 4002 , 4013; ART 3411 or TECH 4375; MATH 1182; PHED 3303 or 3806.
Minor: ( 30 hours)
SPER 3003, 3013, 3014, 3201, 3401, 3501, 3516, 3901.
$4002,4013$.

## REHABILITATION EDUCATION

Major:

1. Rehabilitation Core: ( 48 hours)

SPER 3901, $3911,39124902,4903,4941$ ( 6 hours); SWRK 3902, 3903, 3904: PSYC 3101; DTED 3010. Twelve hours from the following: SOCI 4631 or 3841 . 3831.4420 or $3422,3501,3521$ or $4522,4851,4852$.
2. Concentration Areas:
a. Rehabiltation Educatron ( 36 hours):
SPER 2000, 3002, 3003, $3201,3401,3501,4904$ or 3012, 4905 or 3014; GUID 4621; EDPS 2111, 3121 . 4112.
b. Rehabilitation of the Public Offender (36 semester hours):
SPER 3201, 3401, 3501, 4904 or 3012, 4905 or 3014; PSYC 3102
18 semester hours of work in the fields of criminal justice, guidance, psychology or sociology selected in consultation with advisor.
c. Vocational Evaluation ( 33 hours):

SPER 3002, 3501, 4904 or 3012,4905 or 3014, 4913, 4914, 4915, 4916; PSYC 3102, 3508; SOCI 4842.

## Music Education

Studies in music education qualify students for teaching school music or instrumental music in the public schools. Two degree plans are offered: the Bachelor of Music Education with a concentration area in (1) School Music, (2) Instrumental Music or the Bachelor of Science in Education with endorsement in (1) School Music, (2) Instrumental Music.

## BACHELOR OF MUSIC EDUCATION

The Major:
The major requires the completion of (1) a group of basic music courses and (2) a group of courses in one of two concentration areas:

1. Basic Music: ( $50.5-52.5$ hours)

MUTC 1008, 1010, 1009, 1011, 2008, 2010, 3008, 3009, 3101,3010 (19 hours)
MUHL 3301,3302 (6) (3 hours applicable to Humanitıes in General Education)
MUSE 2108. Requirement can be satisfied by successful completion of piano proficiency ( $0-2$ hours). Proficiency in Piano: no more than 4 hours of class piano may satisfy degree requirements (See section 8, Description of Courses, for details)
Applied Music (14) individual lessons in major applied area including at least four semester hours of upper division credit.
Junior Recital (1)
Music Ensembles: One major ensemble for every semes ter of residence except for the semester of student teaching (7).
MUAP 1000: each semester of residence except for the semester of student teachıng, or for each semester of individual lessons in applied music (3.5)
2. The Concentration Areas:
a. School Music-choral emphasis (11-13 hours)

MUSE $1112^{*}, 1113^{*}, 1115,3700,4202,4207,4701$ (13)

Not required of voice major
b. Instrumental Music ( 16 hours)

MUSE 1101, 1103, 1104, 1109, 1110, 1112, 1113, 3700, 4204, 4700 (16)


# 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

\(\left.\begin{array}{|l|l|l|l|}\hline \& \& \& <br>

Department \& Major \& Concentration Within Major\end{array}\right]\)| Degree Offered |
| :---: |

*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, who 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-medengineering option should take the regular first two years of the common engineering core -including both semesters of general chemistry. As the student progresses through these first two years, he should then contact the chairman of the engineering department of his choice 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 1200 (Botany) and BIOL 1600 (Zoology) are the courses recommended by the U.T. Medical Units admissions office and Memphis State's biology department. These courses should be taken by the student as a junior so as to assist him 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 instruction for majors and minors in geology, (3) undergraduate education in both technical and educational technology, (4) graduate education in all areas, (5) a program of continuing education for the engineering and technological practitioners of the area, (6) assistance in the solution of industrial problems through utilization of physical
facilities and the professional talents of faculty and students, (7) a forum for the interchange of ideas and experiences among members of the industrial community through conferences, institutes and short courses and (8) 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 Departments of Civil Engineering, Electrical Engineering, Geology, Mechanical Engineering, and Engineering Technology. Each offers a choice of specialized four-year programs leading to Bachelor of Science degrees and graduate programs.

## The Institute for Engineering Research

The Institute for Engineering Research was founded in 1970 to promote the participation of students and faculty in research and service activities. Many interesting projects, of local and regional importance, are being actively pursued.

## Facilities

The modern three-building engineering complex was occupied in 1970-71. It affords 161,110 square feet of space for offices, classrooms, and a variety of specialized laboratories equipped with modern furnishings. The engineering administration building houses the 3 -story engineering library, administrative offices, auditorium, study lounges, and a batch computer terminal. The engineering laboratory building has classrooms, offices, and labs for the engineering and geology departments. The engineering technology building on the south houses the entire operation of the Department of Engineering Technology.

## ADMISSION

Requirements for admission to The Herff College of Engineering for freshmen and transfer students are those for the University as a whole (described in section 2, Admission to the University).

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.

## Advising

Freshman students (up to 40 semester hours credit) 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 through the sophomore year.

## RESIDENCE REQUIREMENTS

Residence requirements for The Herff College of Engineering are the same as those for the University as explained in detail in section 6, Graduation from the University.

## DEGREE REQUIREMENTS

## Degrees Offered

The Herff College of Engineering comprises five departments: Civil Engineering, Electrical Engineering, Geology, 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 Geology, 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 Bulletin.
The required curriculum, including elective specialties in each of the various undergraduate programs, is described in detail in the following pages. General requirements include a minimum of 132 credit hours of approved coursework with a minimum quality point average of 2.0. A maximum of 4 hours of PHED may be applied to the 132 credit hour minimum.

## Engineering Core

The following semester groupings represent the freshman and sophomore years which are common to civil, electrical, and mechanical engineering curricula.

## FRESHMAN YEAR

ENGL 1101
MATH 1321
ENGR 1001
ENGR 1011
ENGR 1021
CHEM 1111
PHED 1 -
Phys. Activity $\dagger$
or
ROTC
17-18

## SOPHOMORE YEAR

$\dagger_{\text {A minimum total of } 4 \text { semester credit hours of PHED }}$ and/or ROTC is required.
NOTE 1: To be selected from CHEM 1112, GEOL 1101, BIOL 1200, 1600, 1731 (mechanical engineers should take CHEM 1112).

ENGL 21-*
MATH 2322
PHYS 2512
CIVL 2131
ECON 2110
ROTC
$\stackrel{\text { or }}{\text { PHED Activity }}$

ENGL 21-*
MATH 3391
ELEC 2201, 2203
MECH 2332
H \& S Elective (See Note 2)
ROTC
or
PHED Activity
1-2
17-18
*See section 6, Graduation from the University, for options.
NOTE 2: A 6 or 9 hour sequence terminating at the 3000-4000 level in humanities or social science is required. Of the total courses taken 9 semester hours must be humanities and 6 semester hours must be social sciences from an approved list.

## 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 complete the sequence outlined below. (For the freshman and sophomore years, see the common engineering core previously listed.)

## JUNIOR YEAR

| CIVL 3101 <br> CIVL 3121 <br> MECH 3322 <br> MECH 3311 <br> MECH 3331 | $\begin{array}{r} 3 \\ 3 \\ 4 \\ 3 \\ 4 \\ \\ \hline 17 \end{array}$ | CIVL 3111 <br> CIVL 3122 <br> CIVL 3131 <br> MECH 3361 <br> H\&S Elective <br> (See Note 2) | $\begin{array}{r}3 \\ 3 \\ 3 \\ 4 \\ \\ 3 \\ \hline 16\end{array}$ |
| :---: | :---: | :---: | :---: |
| SENIOR YEAR |  |  |  |
| CIVL 4141 <br> CIVL 4151 <br> CIVL 4161 <br> Civil Engr. Elective <br> (See Note 4) <br> H\&S Elective <br> (See Note 2) | $\begin{array}{r}3 \\ 4 \\ 3 \\ 3 \\ 3 \\ \hline 16\end{array}$ | CIVL 3141 <br> CIVL 4135 <br> Civil Engr. Elective (See Note 4) Technical Elective (See Note 3) | $\begin{array}{r}3 \\ 3 \\ 6 \\ 3 \\ \hline 15\end{array}$ |

NOTE 2: A 6 or 9 hour sequence terminating at the 3000-4000 level in humanities or social science is required. Of the total courses taken 9 semester hours must be humanities and 6 semester hours must be social sciences from an approved list.
NOTE 3: Upper division course in engineering, mathematics, physics, advisor's approval required.
NOTE 4: Upper division course in civil engineeringadvisor's approval required.

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

## CIVIL ENGINEERING

The Major: 40 semester hours in civil engineering courses including CIVL $3101,3111,3121,3122,3131,3141,4135$, $4141,4151,4161$ and 9 hours of civil engineering elective courses. A student may select courses from the following concentrations to satisfy the required 9 semester hours of civil engineering electives and the 3 semester hours of technical electives required for a Bachelor of Science in Civil Engineering:
a. Environmental Engineering: CIVL 4143, 4144, 4148,
4191
b. Foundation Engineering: CIVL 3135, 4152, 4191
c. Structural Engineering: CIVL. $3135,4131,4136,4152$, 4191
d. Transportation Engineering: CIVL 3135, 3136, 4152, 4162, 4164, 4191
e. Construction Engineering: CIVL 3135, 4164, 4171, $4172,4173,4174,4191$

## Electrical Engineering

Students enrolled in electrical engineering are offered a modern, well-balanced 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 space age technology.

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

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 analog and 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 hybrid computers, microwave and antenna systems, communications systems, solid state electronics and automatic control systems.

The minimum requirements for the degree of Bachelor of Science in Electrical Engineering are as follows (for the freshman and sophomore years, see the common engineering core previously listed). An average grade of " C " must be maintained in all undergraduate electrical engineering course work.

| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| ELEC 3201 <br> ELEC 3211, 3213 <br> MECH 3311 <br> Technical Elective (See Note 3) | 4 4 3 6 | ELEC 3202 <br> ELEC 3212 <br> ELEC 3221 <br> ELEC 4211 <br> H\&S Elective (See Note 2) | $\begin{array}{r}3 \\ 4 \\ 3 \\ 3 \\ \\ 3 \\ \hline 16\end{array}$ |
| SENIOR YEAR |  |  |  |
| ELEC 4201, 4203 <br> ELEC 4212 <br> Elec. Engr. Elective (See Note 4) <br> $\mathrm{H} \& \mathrm{~S}$ Elective (See Note 2) | $\begin{array}{r}4 \\ 4 \\ 4 \\ 3 \\ \hline\end{array}$ | ELEC 4231 <br> Elec. Engr. Elective (See Note 4) <br> Technical Elective (See Note 3) <br> H\&S Elective (See Note 2) | $\begin{array}{r}3 \\ 6 \\ 4 \\ 3 \\ \hline 16\end{array}$ |

NOTE 2: A 6 or 9 hour sequence terminating at the $3000-4000$ level in humanities or social science is required. Of the total courses taken 9 semester hours must be humanities and 6 semester hours must be social sciences from an approved list.
NOTE 3: Upper division course in engineering, mathematics, physics, advisor's approval required.
NOTE 4: Upper division courses in electrical engineering, such as: ELEC 4202, 4213, 4221, 4222, 4240 , 4241, 4251, 4261, 4270, 4271, 4991-4992.

## ELECTRICAL ENGINEERING

The Major: 42 semester hours of electrical engineering courses including ELEC 3201, 3202, 3211, 3212, 3213, $3221,4201,4203,4211,4212$ and 4231 . The remaining semester hours of electrical engineering courses may be elected from one of the following areas of concentration. The program also includes 7 semester hours of technical electives whichstudents may utilize to broaden their base of knowledge.
a. Solld State Electronics: ELEC 3222, 4221, 4222, 4240 and 4241 .
b. Energy Converslon: ELEC 3222, 4202 and 4205
c. Control Systems: ELEC 3220, 4215, 4216, 4251 and 4261.
d. Computer Sclence: ELEC 3220, 4215, 4222, 4230, 4232, and 4270.
e. Microwave and Antenna Systems: ELEC 4213, 4230 and 4232.

NOTE: Projects I or II, ELEC 4991 or 4992 can be taken for 3 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 his work, the mechanical engineer must have a basic knowledge of chemistry, physics, mathematics and the classical disciplines of mechanical engineering, thermo sciences, mechanical sciences, materials sciences and modern techniques of engineering analysis, design and optimization. His diverse background uniquely equips the mechanical engineer to work on a variety of challenging problems involving transportation systems, including land and marine vehicles, aircraft and spacecraft, air conditioning systems, nuclear reactors and fuel cells, low pollution devices 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 (for the freshman and sophomore years, see the common engineering requirements previously listed.)

## JUNIOR YEAR

MECH 3311
MECH 3331
MECH 3321
MECH 3322
CIVL 3141

## SENIOR YEAR

MECH 4311
MECH 4322
MECH 4344
MECH ENGR ELEC
(See Note 4)
TECHNICAL ELEC
(See Note 3)
H\& S ELEC
(See Note 2)

ELEC 3211
MECH 3312
MECH 3323
MECH 3361
MECH 3341

3
3
must be humanities and 6 semester hours must be social sciences from an approved list.
NOTE 3: Upper division course in engineering, mathematics, physics, etc., in support of concentration area. Advisor's approval required.
NOTE 4: A 6 upper-division semester hour concentration in mechanical engıneering courses to gain depth in such areas as Energy Systenis, Fluid Power Systems, Mechanical Systems, and Design and Manufacturing, is required.

The mechanical engineering curriculum provides for an element of specialization by way of preference programs in design and manufacturing, energy systems, mechanical systems, and fluid power systems.

## MECHANICAL ENGINEERING

As part of the requirements for a degree of Bachelor of Science in Mechanical Engineering a student may choose one of the following concentration areas:
a. Design and Manufacturing: MECH 4325, 4345, 4361, 4381, 4382.
b. Energy Systems ( 4 of the following courses): MECH 4313, 4315, 4316, $4317,4318$.
c. Mechanical Systems:

MECH 4303, 4325, 4346, 4371.

## Geology

The undergraduate degree offered by the Department of Geology is the Bachelor of Science in Geology. This major allows the student flexibility in that he can select a broad background in geology, or he can select an area for emphasis which can be continued at the graduate level. In addition to the University requirements (see section 6, Graduation from the University), detailed requirements are as follows:
GEOLOGY
The Major: 36 semester hours in geology courses, including GEOL $1101,1201,2311,2312,3211,3512,3712,4622$, and additional upper division semester hours as approved by the advisor: CHEM 1111, 1112; MATH 1321; PHYS 2511, 2512 or $2111,2112$.
Electives: 30 hours which include:
(a) Social Sciences: courses offered by the departments of sociology, anthropology, economics, geography (other than physical), history, political science and psychology.
(b) Humanities: courses offered by the departments of art, English, foreign languages, music, philosophy, and communication and fine arts.
These electives must include:
(1) 12 semester hours in the humanities, including at least six semester hours in one of the following languages: French. German, Japanese, Russian or Spanish
(2) 6 semester hours in the social sciences and

Electives to bring the total to 132 hours. Electives are to be chosen only with the consent of the advisor.
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.

## 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.

## Engineering Technology Core

(Bachelor of Science in Engineering Technology, excluding Computer Systems Technology Major)

## FRESHMAN YEAR

\begin{tabular}{|c|c|c|c|}
\hline \begin{tabular}{l}
ENGL 1101 \\
MATH 1213 \\
TECH 1411 \\
TECH 1511 \\
TECH 1010 \\
TECH 1711 \\
*ROTC \\
or \\
*PHED Activity
\end{tabular} \& 3
3
1
3
3
3

$1-2$ \& | ENGL 1102 |
| :--- |
| MATH 1321 |
| TECH 1811 |
| TECH 2555 |
| TECH 1611 |
| *ROTC |
| or |
| *PHED Activity | \& (3) <br>

\hline \& 17-18 \& \& 18-19 <br>
\hline \multicolumn{4}{|c|}{SOPHOMORE YEAR} <br>

\hline \multirow[t]{10}{*}{| †ENGL21- |
| :--- |
| PHYS 2111 |
| TECH 2944 |
| TECH 1451 (See Note 1) COMM 1311 (See Note 2) |
| - ROTC |
| or |
| *PHED Activity |} \& 3 \& †ENGL 21 - \& 3 <br>

\hline \& 4 \& PHYS 2112 \& 4 <br>
\hline \& 4 \& CHEM 1051 \& 4 <br>
\hline \& 3 \& TECH 3350 \& 3 <br>
\hline \& 3 \& (See Note 3)
TECH 2511 \& 3 <br>
\hline \& \& (See Note 4) \& <br>
\hline \& \& *ROTC \& <br>
\hline \& 1-2 \& \& 1-2 <br>
\hline \& \& \& <br>
\hline \& 18-19 \& \& 18-19 <br>
\hline
\end{tabular}

tsee section 6, Graduation from the University, for options.
*A minimum total of 4 sem. hrs. of P.E. and/or ROTC is required for graduation.
NOTE 1: Electronics majors take TECH 1821.
NOTE 2: Electronics majors take TECH 2821.
NOTE 3: Electronics majors take COMM 1311. Architecture majors take TECH 1555. Construction majors take TECH 2431.
NOTE 4: Electronics majors take TECH 2831. Construction majors take TECH 3451 or 3591.

## 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.

## JUNIOR YEAR

| HIST 2601 | 3 | HIST 2602 |
| :--- | :---: | :--- |
| TECH 3400 | 3 | TECH 3491 |
| TECH 3531 | 3 | TECH 2561 |
| TECH 2556 | 3 | TECH 3401 |
| TECH 2431 | 3 | TECH 4525 |
| TECH 3601 | 3 | Elective (TECH) |
|  |  | 18 |

NOTE 2: A 6 or 9 hour sequence terminating at the 3000-4000 level in humanities or social science is required. Of the total courses taken 9 semester hours


## SENIOR YEAR

TECH 3471
TECH 3520
TECH 3411
TECH 4530
Elective (TECH)

## Manufacturing Technology

This area of study is designed for students interested in directing men, materials, and machines to efficient production in a manufacturing establishment. Areas of opportunity for a student having a background in Manufacturing Technology include production management and supervision or positions in specialized staff groups such as Industrial Engineering, Manufacturing Engineering, Quality Assurance, Process Engineering, or Safety Engineering.

| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| HIST 2601 TECH 2431 TECH 3611 TECH 3400 TECH 3440 TECH 3411 | $\begin{array}{r} 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ \hline 18 \end{array}$ | $\begin{aligned} & \text { HIST } 2602 \\ & \text { TECH } 3386 \\ & \text { TECH } 3421 \\ & \text { TECH } 3401 \\ & \text { TECH } 4460 \\ & \text { TECH } 3573 \end{aligned}$ | $\begin{array}{r}3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ \hline 18\end{array}$ |
| SENIOR YEAR |  |  |  |
| TECH 4462 <br> TECH 4464 <br> TECH 4470 <br> TECH 3718 <br> Elective (TECH) | 3 <br> 3 <br> 3 <br> 3 <br> 3 <br>  <br> 15 | $\begin{aligned} & \text { TECH } 4381 \\ & \text { TECH } 4466 \\ & \text { TECCH } 4472 \\ & \text { TECH } 4571 \\ & \text { Elective (General) } \end{aligned}$ | $\begin{array}{r}3 \\ 3 \\ 3 \\ 3 \\ 3 \\ \hline 15\end{array}$ |

*TECH 3410, 3424, 3631, 4944, 4950, 4961 or other techntcal electives approved by advisor.

## Computer Systems Technology

This area of study is designed to prepare for positions that require a knowledge of 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 | 3 |
| MATH 1213 | 3 | MATH 1321 | 4 |
| TECH 1010 | 3 | TECH 1811 | 3 |
| TECH 1411 | 1 | TECH 2251 | 4 |
| TECH 1511 | 3 | †PHED Activity | $1-2$ |
| TECH 1611 |  |  |  |
| TECH 1711 | 3 |  |  |
| TPHED Activity | $1-2$ |  | $15-16$ |

SOPHOMORE YEAR

|  |  |  |  |
| :--- | ---: | :---: | ---: |
| ENGL 210- | 3 | ENGL 210- | 3 |
| PHYS 2111 | 4 | PHYS 2112 | 4 |
| TECH 2944 | 4 | CHEM 1051 | 4 |
| COMM 1311 | 3 | TECH 2261 | 3 |
| TECH 2431 | 3 | TECH Elective | 3 |
| †PHED Activity | $1-2$ | †PHED Activity | $1-2$ |
|  | $18-19$ |  | $18-19$ |

${ }^{\dagger}$ A minimum total of 4 semester hours of Physical education activity and/or ROTC is required for graduation.

## Electronics Technology

This major, for the student especially interested in the practical application of electronics theory, provides both theory and techniques related to communications, instrumentation, and computer systems, "Hands on equipment" approach is emphasized, and most modern equipment found in industry is employed. Specific requirements for this area are as follow:

## JUNIOR YEAR

| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| HIST 2601 <br> TECH 3440 <br> TECH 1451 <br> TECH 3811 <br> TECH 3821 <br> TECH 4831 | 3 | HIST 2602 | 3 |
|  | 3 | TECH 2431 | 3 |
|  | 3 | TECH 3822 | 4 |
|  | 3 | TECH 4801 | 4 |
|  | 3 | TECH 4832 | 3 |
|  | 3 |  |  |
|  | 18 |  | 17 |
| SENIOR YEAR |  |  |  |
| TECH 3411 <br> TECH 3841 <br> TECH 4821 <br> TECH 4834 <br> Elective (General) | 3 | TECH 4381 | 3 |
|  | 3 | TECH 4811 | 3 |
|  | 4 | TECH 4841 | 3 |
|  | 4 | TECH (Elective) | 3 |
|  | 3 | Elective (General) | 3 |
|  | $\overline{17}$ |  | 15 |

- See advisor for specific courses. Occupational Specialty courses to be taken by students who do not have adequate work experience to meet certification requirements

NOTES FOR INDUSTRIAL ARTS CONCENTRATION:
2. TECH 1611, 2555, 3601 or 3611,3718
3. CHEM 1051 ; PHYS $1111,1112$.
4. Take EDFD 2011 instead.

General Concentration:

| JUNIOR YEAR |  |  |  |
| :--- | :---: | :---: | ---: |
|  |  |  |  |
|  |  |  |  |
| EDRS 4511 | 3 | EDPS 4112 | 3 |
| VTED 4120 | 3 | TECH 4363 | 3 |
| Occu. Spec. | 6 | *Occu Spec | 3 |
| VTED 4140 | 2 | VTED 4210 | 3 |
| TECH 4361 |  | Elective | 3 |
|  | 17 |  | -15 |

*See advisor for specific courses. Occupational Specialty courses to be taken by students who do not have adequate work experience to meet certification requirements.

| SENIOR YEAR |  |  |
| :---: | :---: | :---: |
| - Occu Spec. | 3 | VTED 4611 |
| VTED 4220 | 3 | VTED 4841 |
| Electives | 3-9 | or |
|  |  | VTED 3301 |
|  |  | Electives |
|  |  |  |
|  | 9-15 |  |

- See advisor for specific courses. Occupational Specialty courses to be taken by students who do not have adequate work experience to meet certification requirements
Industrial Arts Concentration:

| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| TECH 1811 | 3 | TECH 1821 |  |
| TECH 3410 | 3 | Or |  |
| *ART 2213 | 3 | TECH 3831 | 3 |
| EDPS 2111 | 3 | EDRS 3121 | 3 |
| VTED 4120 | 3 | EDPS 4112 | 3 |
|  |  | *ART 2221 | 3 |
|  |  | VTED 4210 | 3 |
|  | - | TECH 4355 | 3 |
|  | 15 |  | 18 |
|  |  |  | 18 |

*JOUR 2520 may be substituted for either Art course.

| SENIOR YEAR |  |  |  |
| :--- | ---: | :--- | ---: |
|  |  |  |  |
| TECH 4361 | 3 | Elective | 3 |
| TECH 4362 | 3 | VTED 4841 | 9 |
| TECH 3350 | 3 | Elective |  |
| Elective (Soc. Sci.) | 3 | (Prof Ed) | 3 |
| Elective (Hum.) | 3 |  | - |
|  | 15 |  | 15 |

## The Minors

These minors may be selected by students who have majors other than any of the Engineering Technology majors.

## SAFETY:

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 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 | Degree Offered; |
| :--- | :--- | :--- | :--- |
| $*$ | Individual Studies | $* *$ | Bachelor of Liberal Studies (B.L.S.) <br> Bachelor of Professional Studies (B.P.S.) |

*The College is not comprised of departments. Its programs are interdisciplinary and may make use of all departments in the University.
**The student and an advisory committee design contract degrees.

## 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 combination 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. The college 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, he may apply for admission to the University College in the Office of the Dean. (See Section 2 of the Bulletin for admission to the University.) The University College welcomes inquiries from persons who believe that their interests will be best served by a program which emphasizes personally designed education 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.

Aletter from the Dean of the University College assigns the applicant to a temporary advisor for a screening interview, the purpose of which is to determine if the applicant's needs are best met in the University College or elsewhere. If the temporary advisor recommends acceptance and the dean agrees, the student
receives a letter of acceptance from the dean instructing him to confer with the temporary advisor on forming a Contract/Advising Committee, and reminding him that he must pay a $\$ 25.00$ contract/advising fee before the committee meets. The Contract/Advising Committee works with the student to develop a degree program which serves the student's needs and meets the academic requirements of the University College and of Memphis State University.

A student 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.

## RESIDENCE REQUIREMENTS

The usual residence requirements of Memphis State University obtain: 33 of the final 66 semester hours required for the degree must be completed at Memphis State University; see section 6, Graduation from the University.

## 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 of that committee must be a faculty member of Memphis State University; the remaining committee members may be appropriate student or off-campus resource persons. The committee may direct the student in the preparation of a portfolio to obtain credit for knowledge gained through experience or non-traditional instruction; see section 3, Fees and Charges, for a description of credit evaluation fees. The Baccalaureate Contract will include work in three major areas: Liberal Studies, Thematic Studies and Individualized Studies.

## 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, 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. Although the specific content of the courses will vary from semester to semester, general course descriptions are included in the Bulletin. 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.

## 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 to 9 semester hours credit each.

## Individualized Studies

Individualized Studies comprise more than half of a student's degree contract. Of the 132 semester hours minimum credit required for a degree from Memphis State University, 77 hours of Individualized Studies are required of a BLS student, 86 hours of a BPS student.

## Coordinated Study Program

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 upper-division hours of their Coordinated Study Program. Examples of Coordinated Study Program areas follow:

B.P.S.<br>Aviation Administration Commercial Aviation Human Services<br>Health Care Education<br>Human Resource Management<br>Nuclear Industrial Operations<br>Fire Science Administration<br>Services for the Aging<br>Horticulture<br>\section*{B.L.S.}<br>Language and Mind<br>Black Studies<br>Cross-Cultural Comparison of Art<br>Humanities<br>Fine Arts in Promotion<br>Women's Studies

## Black Studies

Interdisciplinary degree programs in Black Studies may be completed in University College, leading to the degree Bachelor of Liberal Studies. Through a contract degree, a student in University College may construct a Coordinated Study which meets individual career goals. A minor in Black Studies is also open to students majoring in a traditional discipline or interdisciplinary field in one of the other undergraduate colleges.

## BLACK STUDIES

The Coordinated Study: Upon admission to University College a student will design a degree contract with the aid of a faculty advisory committee. Advising guidelines are available from University College.
The Minor: 15 semester hours, including 9 hours from core courses and 6 hours from electives:
(a) Core Courses: ENGL 4371, HIST 4881, either COMM 2361 or POLS 4407.
(b) Electives 1 ANTH 3422; MUHL 2101: 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.

## Religion in Society

The Minor: 18 semester hours of core courses and electives.
A. Required Core Courses
PHIL 3701

| God and Man |  |
| :--- | :--- |
| ANTH 4253 | Anthropology of Religion |
| SOCI 3860 | Sociology of Religion |

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 3120 Religion and Politics 2. PHIL 3411 Contemporary Moral Problems PHIL 3451 Existentialism PHIL 3511 Ethics PHIL $3711 \quad$ Philosophy of Religion PHIL 3721 Oriental Philosophy
3. HIST 3021 History of the Christian Church HIST 3290 Traditional Asia HIST 4361 History of the Byzantine Empire HIST 4371 Early Middle Ages HIST $4372 \quad$ High Middle Ages
HIST 4390 Europe - Age of Reformation
4. ENGL 4461 Biblical Literature

ART 4131 Early Christıan and Byzantine Ar 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

## Women's Studies

Interdisciplinary degree programs in Women's Studies may be completed in University College, leading to the degrees Bachelor of Liberal Studies and Bachelor of Professional Studies. Through a contract degree, a student in University College may construct a Coordinated Study which meets individual career goals. A minor in Women's Studies is also open to students majoring in a traditional discipline or interdisciplinary field in one of the other undergraduate colleges.
WOMEN'S STUDIES
The Coordinated Study: Upon admission to University College a student will design a degree contract with the aid of lege a student will design a degree contract with the aid of
a faculty advisory committee. Advising guidelines are a facuity advisory committee. Ad
available from University College.
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 $3700 \quad$ Women in American Society (or as previously listed, UNIV 3502) History of Women in America
HIST 4851
B. Additional Courses. Select 9 hours: ENGL 3100 Feminine Consciousness in Western Literature HMEC 4201 Preparation for Marriage HMEC 4201 PSYC 4503 PSYC 3105 SOCI 3432 SOCI 3831 ECON 4910 UNIV 4380

Psychology of Women
Sociology of Sex Rol
Marriage and the Family Women and Work Independent Study (1-3)

TOTAL $\overline{18}$

## 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.

Degree Requirements
Semester hours
LIBERAL STUDIES

| UNIV 1010 Communication I | (6) |
| :---: | :---: |
| UNIV 1020 Communication II | (6) |
| UNIV 1210 Humanities | (6) |
| UNIV 1410 Social Science | (6) |
| UNIV 1610 Natural Science | (6) |
| UNIV 1810 Leisure and Recreation | (4) |
| MATH 1181 or PHIL 1611 (or another mathematics course |  |
| at the same level or above) | (3) |
| For both BLS and BPS degrees: | 37 |

## INDIVIDUAL STUDIES

Coordinated Study Program. upper division hours UNiV 4996 Special Project

## for the BPS degree

for the BLS degree:

## 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, Pass/Fail 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.
Associate Vice President for Academic Affairs
Room 319, Administration Building

ACADEMIC PROGRAMS

| Department |  |  |  |
| :--- | :--- | :--- | :--- |
|  | Major | Concentration Within Major | Degree Offered |
|  | Nursing |  | Bachelor of Science in <br> Nursing (B.S.N.) |
| **International Studies | tUrban Studies |  | Bachelor of Arts (B.A.) |
|  | tlatin American Studies | (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.) |

**See also the listing for the College of Business Administration $\dagger$ Collateral 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, Library Science, Military Science, Nursing, 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
J. REX ENOCH, Director

Office of international Studies, Old Brister Library, 130

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 Dalvin M. Coger, Department of History.

## AFRICAN STUDIES

The Certificate: 21 semester hours from the following courses: ANTH 3242, 3342; HIST 4281, 4282, 4283, 4284; POLS 3309, INTL 4301, 4302. At least one course must be taken within each of the three departmental areas (anthropology, history, and political science), and the interdisciplinary sequence course, INST 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 College of Business Administration. 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 College of Business Administration 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 his 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, Director of International Studies.

## INTERNATIONAL RELATIONS

The Major: 30 semester hours, including ECON 3510, 4340 , 4350 and /or ( 6 hours of economics); POLS 2501, 4501, 4350 and/or ( 6 hours of economics); POLS 2501, 4501 ,
4508 , and 3505 or 4504; INTL 4601; and three courses, 4508, and 3505 or 4504; INTL 4601; and three courses,
in at least two disciplines, from one of the following areas in at least two disc
of concentration:
(a) American Foreign Policy: ECON 3510; GEOG 4421; HIST 3802, 4811; POLS 2301, 3506, 4506; etther POLS 3505 or 4504.
(b) Western Europe: GEOG 4304, HIST 3200, 3506, 4145. 4461; POLS 3302, 4507
(c) Latin America: ANTH 3232, 3930 or SOCI 3930; GEOG 4324. 4325; HIST 3212, 4240, 4250; POLS 3306. 4306.
(d) Asia: GEOG 4306; HIST 3291, 4292, 4294, 4295; POLS 3307. 4307.
(e) Soviet Union: GEOG 4305: HIST 4162, 4163; POLS $4305,4502,4505$.
(f) Sub-Saharan Africa: ANTH 3242, 3342; HIST 4281 , 4283.
(g) Middle East and North Africa: HIST 4282, 3271 ; POLS 3309.

NOTE: The student electing the major in International Relations is advised to take the following courses to insure Relations is advised to take the following courses to insure
that he has an adequate background for the required that he has an adequate background for the required
courses in the major: ECON 1010, 2110; GEOG 2301 , courses in the major: ECON 1010, 2110 ;
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 studyabroad 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 Major: 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; 1NTL 4201: POLS 3306; SPAN 3511 or 3512
(b) Elective Courses: ANTH 3232, 3332; ART 4162, 4163; ECON 3580; HIST 3200, 4240, 4250; POLS 4306, ECON 358;; HIST $3200,4240,4250$
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.

## LIBRARY SCIENCE

## PROFESSOR EVELYN G. CLEMENT, Chairman

Room 101, John Willard Brister Library
The Department of Library Science offers no major in Library Service. For certification in Library Service, a student must complete requirements for endorsement in elementary education or a major endorsement in secondary education, in addition to completing LIBS 4111, 4121, 4131, 4232, 4331, 4401; CIED 4301

For non-certification, a student whose major is in another college of the University will meet requirements for a minor in Library Service by completing the courses listed above.

## NURSING

PROFESSOR BONNIE W. DULDT, Chairman
Room 316, Manning Hall

## Purposes

The function of the Department of Nursing is to provide a broadly based education necessary for the first profes-
sional degree in nursing. A significant characteristic of the department is that it provides a unique educational opportunity for Registered Nurses having associate degrees or diplomas in nursing to broaden their career opportunities and goals. The program developed in response to educational needs for professional and personal growth voiced by the nursing community in the West Tennessee area. While the educational program concentrates on nursing, it also provides a broad educational base. Over fifty-five percent of the course work is taken in academic disciplines such as the natural and physical sciences, the humanities, and the social sciences.

The faculty of the department represent all major areas of nursing practice and a variety of experience 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 for students preparing as professionals. At this professional level, the nurses' role is defined as providing within the health care system a comprehensive service of assessing, promoting, and maintaining health of individuals and groups. They practice in a variety of settings, hospitals, service agencies, and the community. Comprehensive health care is emphasized. Memphis and the surrounding area offer a wide variety of services and facilities in health care which serve to enrich the clinical aspects of the program.
The faculty are united in their perception of the human being as having intrinsic worth and dignity. The faculty believe clients of nursing and health care are to be provided care in a humanistic manner characterized by the nurse's communicating and relating to clients in such a way that they feel accepted, important, understood, and heard. Registered Nurses who share this perception of people will find the climate at the Department of Nursing particularly attractive, whether the perception is based on moral, philosophical or religious beliefs.

This humanistic manner of communicating is also reflected in the teacherstudent relationships. The teaching strategies used are designed to recognize the capabilities and characteristics of adult learners. Students as learners are perceived as responsible people growing and changing, having inherent intrinsic worth. Complete statements of the philosophy, conceptual framework, and objectives are available from the Department of Nursing.

## Organization

The department functions as a whole, without division into specific areas of clinical nursing. Nursing courses are offered only at the upper division level. Students are advised to complete all lower division required courses before attempting upper division clinical nursing courses.

## Admission

Requirements for admission to the Department of Nursing are the same as those for the University as a whole; see section 2, Admission to the University. Upon admission to the University and declaration of Nursing as one's major, applicants seek academic advisement at the Department of Nursing Office. Transcript evaluation of transfer credits is made on request of the student at the University Admissions Office.

Requirements for the baccalaureate program in nursing are as follows:

1. Graduation from an accredited associate degree or diploma program in nursing.
2. Current licensure as a Registered Nurse in Tennessee.
3. A cumulative grade point average of 2.0 or higher.
4. Completion of prerequisite lower division courses is mandatory before entering the upper division clinical nursing courses.

## Lower Division Requirements

English: ENG 1101, 1102 (with minumum grade of C) and two of the following: 2101, 2102, 2103. 2104, 2105, 2106.
History: HIST 2601, 2602.
Science: BIOL 1731, 1732, 1400; CHEM 1051, 1052 (with minımum grade of $C$ and within the last 15 years or current minimum grade of $C$ andion by testing).
Physical Education: two semesters of activity courses.
Mathematics: MATH 1181 or above.
Nursing: 30-37 semester hours.
Humanities: 3 semester hours from art, foreign languages, music, philosophy, or theatre and communication arts.
Behavioral Sclence: 9 semester hours as follows: EDPS 2111 , PSYC 1101, ANTH 1200 or SOCI 1111; developmental psychology or human growth and development are crucial to program and must show on transcript.

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 test results in Anatomy and Physiology, Chemistry and Microbiology are used to measure current knowledge in these fields. A score of the fifty percentile or higher is required; this represents the equivalent of the upper half of contemporary classes of basic students of nursing. See the Department Policy Manual for additional regulations regarding validation of nursing knowledge and skills, as well as other policies.

## Residence Requirements

University residence requirements are explained in detail in Section 6, Graduation from the University. 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 total of 135 semester hours of credit is required for the Bachelor of Science in

Nursing degree. A minimum cumulative quality point average of 2.0 is also required. In addition to the lower division prerequisites required for admission to the program, the following requirements must be met for graduation:

Nursing: NURS 3000, 3002, 3101, 3102, 3200, 4000, 4100, 4200.

Research/Statistlcs: EDRS 4541, 4542
Soclal Sclence Electlve: 3 semester hours (any upper division course in International Studies. Sociology, Anthropology, Psychology, Geography, Political Science, Economics, Criminal Justice, History, Phulosophy, Journalism. or Communications)
Blology: BIOL 3440.
Electlve: 3 semester hours (any upper division course).
Methods of earning credit other than enrollment in the courses include correspondence or extension credit and credit by examination. The University policies are explained in detail in Section 5, Academic Regulations.

The following respresents a common curriculum plan for the junior and senior years:

## JUNIOR YEAR

| * NURS 3000 | (3) | *BIOL 3440 | (3) |
| :--- | :---: | :---: | :---: |
| * NURS 3002 | (3) | NURS 3200 | (6) |
| NURS 3101 | (3) | *ocial Science |  |
| NURS 3102 | $(3)$ | ELECTIVE | (3) |
|  | $\frac{12}{12}$ |  | 12 |

## SENIOR YEAR

| NURS 4000 | (6) | NURS 4200 | (6) |
| :--- | :---: | :---: | :---: |
| NURS 4100 | (3) | EDRS 4542 | (3) |
| "EDRS 4541 |  | ELECTIVE | $(3)$ |
|  | 12 |  | 12 |

*Students who prefer to attend part-time may complete these courses prior to entering the clinical nursing courses.

URBAN STUDIES<br>ASSOCIATE PROFESSOR MELVIN C. BARBER, Coordinator<br>Room 130, Old 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 Mid-south public agency is both available and encouraged through the program.

The program's broad orientation and its attention to the causes and consequençes 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 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 Major: 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
Sem 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 ANTH 3225, GEOG 4531, POLS 3100, or SOCI 3322. A
second methods course may be applied to the urban second methods course may be app
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; EDFD 4032; 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 Mmor: 18 semester hours including URBN 4001 and 5 others courses as listed above (in core or in elective sets).

AEROSPACE STUDIES
LT. COLONEL JAMES C. KASPERBAUER, Professor of Aerospace Studies

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 foun-
dations in developing upperclassmen who are to become Air Force officers and serve on active duty upon graduation and commissioning. Students may apply for the two-year 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 25 hours of flight instruction and 3 semester hours of Elementary Aeronautics (ROTC 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 (See Chapter 4, Scholarships). 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

Four-year cadets enrolled in the Professional Officer Course will attend a fourweeks field training program at an Air Force Base during the summer between their sophomore and junior years. Cadets who register for ROTC 3211 (Four-Week Field Training), prior to attending field training, will receive an academic grade with four hours academic credit. Students applying for the Professional Officer Course Two-Year Program will attend a six-weeks field training program at an Air Force Base prior to entering the Professional Officer Course as a cadet. Students who register for ROTC 3212 (Six-Weeks Field Training), prior to attending field training, will receive an academic grade and six hours academic credit.

## 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.

Special Student Program
This is availabe to all students who have not previously enrolled in an ROTC
course in the University. AFROTC scholarship recipients are not eligible. This program applies to a student's first semester in any GMC course. The special student does not pay the uniform deposit, does not have to meet strict Air Force hair standards, does not wear the uniform. Full credit is received for the course.

## 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 col-lege/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. Additionaly, 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 130, 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 his 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. 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 (junior and senior level). 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 psychology, 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 Students Association. The Program is housed in Old Brister Library, Rooms 128-130, where the office of the Director is located; as well as a seminarconference 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. Normally an honors student will take one honors class each semester during the first two years, but he may take more (there is no maximum). However, at least 6 hours of low-er-division honors credit are required for admittance to advanced-level honors courses.

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 interdis-
ciplinary 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

CAPTAIN DANE L. WOYTEK, Professor of Military Science

Room 117. Health Center

The Department of Military Science is responsible for administering the Army Reserve Officer Training Corps (ROTC) program on campus. The curriculum is designed to provide college men and women with practical experience in the art of organizing, motivating, and leading others while completing their studies for a baccalaureate degree.

The Army ROTC Program is designed to complement the student's college work by providing meaningful educational experiences while leading to a commission as a $2 /$ LT in the active Army, the Army Reserve or the Army National Guard. All ROTC courses are designed to maximize self awareness and build confidence while providing valuable leadership training and practical experience.

## Military Science Basic Course

Basic Course (MS I and MS II) is an inroductory phase for freshmen and sophomore students consisting of elective courses designed to combine the elements of basic military science with areas of general student interest. Courses count as elective credit toward the total university required hours for a degree. There is NO MILITARY OBLIGA-

TION for enrolling in any of the basic level courses. Participation in the military leadership laboratory is voluntary except for ROTC Scholarship students. Equipment and texts required in these courses are furnished at no cost to the students. Activity physical education credits are granted for all introductory level courses.

## Military Science Advanced Courses

The Advanced Course comprises the last two years of college ROTC (MSIII and MSIV) instruction. For selected students, the curriculum of the advanced course consists of military methods of instruction, leadership and exercise of command, map reading and land navigation, small unit tactics, communications, branches of the army, military law, logistics and orientation in preparation for military service as an officer. Practical leadership is provided by assigning students as Cadet Officers and Noncommissioned Officers in the Corps of Cadets. The Advanced Course also requires attendance at an advanced camp (leadership practicum) lasting six weeks during the summer following completion of MS III.

## Enrollment and Continuance REQUIREMENT

The general requirements for enrollment and continuance in the Army ROTC Program are:

1. Basic Course:
a. Be a citizen of the United States.
b. Be acceptable by the University as a regularly enrolled student.
c. Not be a conscientious objector.
2. Advanced Course: All cadets selected for enrollment in the advanced course of Army ROTC must: a. Have successfully completed six semester hours of Military Science including ARMY 1110 and ARMY 2110 or have been granted credit for the same.
b. Execute a written agreement (with consent of parent or guardian if a minor) with the government to complete the advanced course; to attend the advanced summer camp at the time and place specified; and to accept a commission if offered.
c. Be able to qualify for appointment as a second lieutenant by completing or receiving credit for four years of ROTC prior to reaching 28 years of age.
d. Complete the following upper division military science courses: ARMY 3110, 3120, 4110, 4120.
e. Be selected for enrollment by the Professor of Military Science and the President of Memphis State University or his authorized representative, after completing such general survey or screening tests as may be prescribed.
3. The two year advanced course program is offered to junior college graduates or students who were unable to attend the basic ROTC course during their first two years of enrollment. Applicants must successfully complete a six week basic camp prior to entering the advanced course.
4. Students with prior ROTC training, elther high school or college, and students with prior active
military service may qualify for advanced standing upon approval of the Professor of Military Science (PMS).

## Financial Benefits and Army ROTC Scholarships

All cadets enrolled in the Army ROTC program are furnished the necessary tests, equipment, and uniforms (advanced course only) by the government through the military property officer at Memphis State University.

In addition to being furnished the above items, students enrolled in the advanced ROTC course receive a tax free subsistence allowance of $\$ 100.00$ per month for not more than ten months each school year for two years. While attending either the basic or advanced summer camps, each cadet receives pay at the rate of one half the pay of a Second Lieutenant. In addition, rations and quarters are furnished during the period of summer camps. All cadets attending summer camp are eligible for servicemen's group life insurance coverage in the amount of $\$ 35,000$. Mileage to and from summer camp is paid by the government.

Scholarships which pay full tuition and fees, full book allowance, and a tax free subsistence allowance of $\$ 100.00$ per month are available to university students who are competitive academically and will enroll in the Army ROTC program. Details concerning qualifications can be obtained from the Department of Military Science.

## Sponsored Activities

The Department of Military Science sponsors the following activities:

1. The Army ROTC Rifle Team-Members are selected to 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. Drill Team-Membership in the Drill Team is open to all students enrolled in any Military Science course. The team provides color guards at athletic events and drills competitively at drill meets.
3. M.S.U. Ranger Platoon-The Ranger Platoon is and adventure type unit under the direction of advanced course ROTC cadets and supervised by Military Science instructors. Membership is open to all students interested in developing skills associated with patrolling, mountaineering, survival training, and other similar activities.

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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.

Courses are numbered according to the following system:

## 1000-1999 Courses primarily for freshmen - <br> 2000-2999 Courses primarily for sophomores

3000-3999 Courses primarily for jun-
iors
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.)

Course numbers have no reference to the semester in which the courses are taught.
The numbers in brackets following the course descriptions represent the HEGIS taxonomy and mode of instruction.

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 Bulletin. Copies are available in the office of the Associate Dean of Admissions and Records (Records).

## THE COLLEGE OF ARTS AND SCIENCES

ANTHROPOLOGY<br>PROFESSOR<br>THOMAS W. COLLINS, Chairman<br>Room 122. Clement Humantties Building

## EO10 ANTHROPOLOGY (ANTH)

1100. Man's Place in Nature. (3). Man's place in nature. human origins, fossil record from archaeological excavations. bological aspects of race. (2201-1]
1101. Man and Culture. (3). Origin and development of human culture. Social relations, language. government, religon and ritual, and problems of developing nations or minority groups in modern world. (2201-1]
1102. Introduction to Archaeology. (3). Description of archaeological evidence for development of human culture from its eariliest beginnings to rise of civilizations. Introduction to principles and methods of archaeoiogy. (2203-1)
1103. Urban Anthropology of Contemporary America. (3). Anthropological interpretation of diverse and changing life patterns in American urban society. Attention to cross-cuitural analysis of divergent settlement patterns, kinship networks al analysis of divergent settlement patterns, kinship netw
and political, religious and economic systems. (2214-1)
1104. Indians of Tennessee and Adjacent Areas. (3). Archaeology and ethnology of Southeast; intensive study of various Indian cultures of Tennessee and bordering states. [2202-1] 3111. Human Paleontology. (3). Hominid fossil record starting with primate developments; human evolution; human ing with primate det
1105. Peoples and Cultures of the World. (3). (Same as GEOG 3200). Major ethnographic areas and selected cultures of the world. (2202-1]
1106. Qualitative Methods of Field Research. (3). Various qualitative methods of anthropological research. Application in collecting life histories and writing ethnographic descripin collecting life histories and writing ethn
tions of contemporary societies. (2202-8]
1107. Ethnology of North America. (3). Description and distribution of aboriginal culture types of North America north of Mexico: comparisons and interrelationships during pre-and post-contact periods. [0313-1]
1108. Ethnology of Latin America. (3). Description and distribution of peoples and cultures of South America and Mesoamerica; comparisons and interrelationships during preand post-contact periods. (O308-1]
1109. Ethnology of Africa. (3). Description and distribution of peoples and cultures of Africa; comparisons and inter-relationships during pre- and post-contact periods. [0305-1]
1110. Ethnology of Oceania. (3). Description of peoples and cultures of Oceania (including Australia); comparisons and inter--4-la
[0314-1]
1111. Archaeological Field Techniques I. (3). Experience in held excavations; preparation of specimens, use of survey instruments, photographing and keeping archaeological records, map making of smallground areas. Hours individually arranged. PREREQUISITE: permission of instructor. [2203-8] 3322. Archaeological Field Techniques II. (3). Continuation of Anthropology 3321 . PREREQUISITE: permission of instructor Anthropo
[2203-8]
1112. Archaeology of North America. (3). Description and distribution of prehistoric cultural remains in North America north of Mexico. Major regional sequences, extending from the earliest evidences of human occupation until historic times. [2203-1]
1113. Archaeology of Latin America. (3). Description and distribution of prehistoric cultural remains in South America and Mesoamerica, with emphasis on Mexico and Peru.
and Meso
1114. Archaeology of Africa. (3). Description and distribution of archaeological remains in Africa; major regional sequences, extending from earliest evidences of human occupation until historic times. Emphasis on cultural achievements of precolonial Atrica. [2203-1]
1115. Archaeology of Asia. (3). Description and distribution of prehistoric cultural remains in Asia; major regional sequences,
from earliest evidences of human occupation until historic from earliest ev
times. [2003-1]
1116. Soclal and Ethnic Minorities. (3). (Same as SOCI 3422). Social and ethnic minorities in United States and elsewhere: focus on differences in cultural backgrounds. social relationships with larger society; social, educational, and legal prob lems: factors contributing to satisfactory and unsatisfactory adjustments of minorities. (2202-1)
1117. Linguistic Anthropology. (3). Nature and usefuiness of symbols, mechanisms by which they are communicated, symbols, mechanisms by which they are communicated,
relation of symbolic systems to thought and culture, compararelation of symbolic systems to thought and culture, compara-
tive techniques used to reconstruct prehistoric languages. tive techniques used to reconstruct prehistonic languages.
(2202-1)
1118. Cultural Development and the Growth of Technology. (3). Anthropological survey of development of technology and its impact on organization of industry and work from prehistoric through post-industrial societies. Consideration of such current issues as public control of technology, labor market
segmentation, and quality of working life, in context of comparative analysis of both pre-industrial and industrial societies. (2202-1)
1119. Mexican Soclety and Culture. (3). (Same as SOCI 3930). Mexico's social development, population, contemporary institutions and cultural patterns, the family, the community and urban society, minority group relations, and social problems. [2202-1]
4051-6051. Anthropology and Education. (3). (Same as EDFD 4051). Advanced study of cultural transmission process with emphasis on identifying differing behavioral, cognitive and learning styles of various ethnic groups within American society and selected third world countries. Encounters of U.S subcultural groups with public education system. PREREQUISITE: permission of instructor. (2214-1]
4064-6064. The Rise of Anthropological Thought. (3). (3065). Rise of anthropology as a science. Emphasis on anthropological thınkıng and theories of 19th and early 20th century. [2202-1]
4065-6065. Contemporary Anthropological Theory. (3). Contemporary growth of theories and methods in anthropology (2202-1]
4111-6111. Human Adaptations. (3). Human populations and their variability; examination of human adaptations in locomotion and manipulation, iacial structure, brain and language. and reproduction; comparisons to anatomy, physiology, and behavior of other primates. (2202-1)
4252-6252. Economic Anthropology. (3). Comparative analysis of economic systems and their functional relationships to other cultural institutions; production, distribution, and consumption; concepts of wealth, value, property, and ownership. (2202-1)
4253-6253. Anthropology of Rellgion. (3). Comparative analysis of religious systems and their functional relationships to other cultural institutions; inter-relations of myth, magic, and ritual; types of religious institutions and religious practitioners. [2202-1]
4254-6254. Cultural Change. (3). Internal and external factors causing change; role of various change agents; cultural changes associated with urbanization, industrialization
modernization; theories of cultural evolution. [2202-1]
4311-6311. Archaeological Theory and Method. (3). History ot archaeology and development of conceptual tramework for archaeological data collection and interpretation; current theories and methods including the use of allied specialists. [2202-1]
4321-6321. Archaeological Fleld Control. (3). Methods of dealing with ar chaeological field problems; individual instruction in collection, recording, and field analysis of both historic and prehistoric archaeological data [2203-8]
4325-6325. Archaeological Fleld Techniques and Restoration. (3). Individual instruction in dealing with archaeological field problems and methods of modern conservation and restoration techniques. PREREQUISITE: permission of the
instructor, $2203-8]$ instructor. [2203-8]
4351-6351. Evolution of Civilization. (3). Comparative inves-
tıgation of orıgins of civilization in Old and New Worlds tigatıon of origins of civilizatıon in Old and New Worlds. Development and study of models to explain cultural, social, political, and other changes that lead to and define civilization. [2202-1]
4354-6354. Archaeology of the Holy Land. (3). Survey of archaeological remains in Holy Land from Stone Age to early Christian Era. [2203-1]
4370-6370. Historic Archaeology. (3). Review of contributıons of archaeologists to historical research. Methods and techniques of archaeologists as required and modified by excavation and interpretation of historic materials. Allied speciahties unique to Historic Archaeology including documentary investigations and conservation and restoration of existing structures. (2203-1)
4380-6380. Museology. (3). (Same as ART 4380). History and development of museums; mandate and variety of institutıons; significant research facilities; historical and contemporary collections, and the educational roles of museums in contemporary society. (2299-1)
1120. Archaeological Laboratory and Research Techniques. (1-3). Coverage of basic archaeological laboratory and research techniques, including processing, cataloguing, st orage of specimens, and analysis of small body of archaeological data on individual basis. May be repeated for credit when topic varies. No more than 6 hours credit may be counted toward major requirements in anthropology. PREREQUISITE: permission of instructor. (2203-8]

001 GENERAL ARCHAEOLOGICAL LABORATORY 002 HUMAN OSTEOLOGY
003 CONSERVATION AND RESTORATION
4382-6382. Museum Operation. (3). (Same as ART 4382). Basic aspects of museum organization, management, exhibit planning and execution, and maintenance of collections and records. [2299-1]
4411-6411. Urban Anthropology. (3). Anthropological studies of pre-industrial and industrial cities. Ubanization, movements of social transformation and other processes of adjustment to urban milieu. Urban slums, ethnic enclaves and housing developments in cross-cultural perspective. Urban kinship and social organization. Urban community development.
Urban research techniques. (2214-1)
4420-6420. American Folklore. (3). Selected genres of Ameri-
can folklore, including folk religion and beliet, folk medicine, folksong and music, narrative and humor (jokes and riddles).

Comparisons to other cultures. Emphasis on role of foiklore in maintenance of tradition, in social change, and in concept of culture (2202-1)
4511-6511. Medical Anthropology. (3). Cross-cultural analysis of bio-behavioral components of infectious, nutritional, genetic, chronic and psychiatric diseases. Individual and culgenetic, chronic and psychatric diseases. individual and cui-
tural reactions to medical care, protessionals and health care delivery systems. (1299-1)
4521-6521. Folk MedicIne in the U.S. (3). Medical alternatives o standard health care system. Concepts of iliness associted with such practices as use of medicinal plants, faith healing, chiropractic. Clinical effectiveness of folk herbal medicine and psychotherapy. Health professional's role in caring for persons with different perceptions of health and
disease emphasized. (2202-1] disease emphasized. [2202-1]
4541-6541. Nutritional Anthropology. (3). Human nutrition in cross cultural perspective. Basic nutritional requirements Interrelations of dietary behavior with resource availability values for foods. Dietary aspects of acculturation and culture change. Methodology in assessment of nutritional status and nutritional insufficiencies. Exemplary case studies. [0424-1]
4751-6751. Culture and Personality. (3). Comparison of factors involved in analysis of personality as contrasted to culture; interaction of these factors; problems of studying personality cross culturally. (2202-1]
4752-6752. Applied Anthropology. (3). Application of anthropological knowledge and techniques to contemporary prob lems in government, industry, public health, community development, and urbanization. [2202-1]
4975. Directed Individual Readings. (1-4). Intensive guided survey of anthropological and related literature dealing with opics selected by advanced students and accepted by staff Compilation, synthesis, and evaluation of published data preparation for students considering anthropology as a pro tession. PREREQUISITE: permission of chairman and desig nated staff. [2202-8]
4985. Directed Individual Research. (1-3). Intensive guided study of orıginal data, in areas selected by advanced students and accepted by staff. Collection and / or processing of data in physical anthropology, ethnology, applied and urban anthropology, archaeology, and linquistics; description, classification, analysis, and synthesis. Preparation for publication PREREQUISITE. permission of chairman and designated st aff [2202-8]
4990. Special Topics in Anthropology. (3). Selected topics of current interest in areas of anthropology not otherwise includ d in the curriculum. May be repeated for credit when topic varies. [2202-1]

## 001 NEIGHBORHOOD STUDIES IN MEMPHIS

002 EXPERIMENTAL ARCHAEOLOGY
003 INDUSTRIAL ANTHROPOLOGY
4995. Independent Study in Anthropology. (3). Investigation of contemporary issues in anthropology; experience with application of anthropological principles in selected settings. e.g., in Greater Memphis area; may be offered in sections dealing with different topics. (2202-8) 7
Graduate courses in Anthropology: For detarls of the graduate program see The Bulletin of The Graduate School.

## BIOLOGY

## PROFESSOR JAMES F. PAYNE, Chairman

201B, Life Science Burding

## ADVANCED PLACEMENT

Beginnıng freshmen who have completed an advanced bioloy course in high school may apply to the chairman of the Dy courtment of Brology, during the semester preceding enrollment, for advanced placement. A supplementary departmental test is required in most cases.
NOTE: Ail departmental majors and minors are advised to take BIOL 2000 before any upper division biology courses.

## E060 BIOLOGY (BIOL)

1001. Introduction to Blology. (3) Survey of biology; empha sis on anımal kingdom; for non-science majors. Credit no acceptable for biology major or in related pre-professiona curricula. Credit not allowed tor both BIOL 1001 and 1600 Two lecture, two laboratory hours per week. [0401-1]
1002. Introduction to Biology. (3). Contınuation of BIOL 001, with emphasis on plant kingdom. Credit not acceptable for biology major or in pre-professional curricula. Credit not allowed for both BIOL 1002 and 1200. Two lecture, two laboratory hours per week. (0401-1)
1003. General Plant Blology. (4). Survey of plant kingdom distribution, taxonomic relationships, morphology, physiolo y, and economic importance of selected forms. Three fec ure, three laboratory hours per week. [0402-1]
1004. Microblology. (4). To meet requirements of student nurses and majors in Department of Health, Physical Educaion, and Recreation. Three lecture, two laboratory hours per week. (0411-1)
1005. General Animal Biology. (4). Survey of animal kingdom: stribution, taxonomic relationships, morphology. physioloy, and economic importance of selected forms
ure, three laboratory hours per week. [0407-1]
1006. Human Anatomy and Physlology. (3). Structure and unction of human organism, primarily for majors in Departecture, two laboratory hours per week. (0412-1)
1007. Human Anatomy and Physlology. (3). Continuation of 10 L 1631 , primarily for majors in Department of Health, Physical Education, and Recreation. Two lecture, two labora-
tory hours per week. PREREQUISITE: BIOL 1631 or equivalent. (0412-1]
1008. Anatomy and Physlology. (4). Detailed study of struc-
ture and functions of human organism. Three lecture, two ture and functions of human organ
laboratory hours per week. (0412-1)
1009. Anatomy and Physiology. (4). Continuation of BIOL
1010. Three lecture, two laboratoryhours per week. PREREO. UISITE: BIOL 1731 or equivalent. (0412-1)
1011. Fundamental Concepts of Blology. (3). Expansion and elaboration on basic biological concepts introduced in BIOL
1200 and 1600 . Includes cell structure. cell function, repro1200 and 1600 . Includes cell structure. cell function, repro-
duction, genetics, evolution, and ecology. Both unifying and comparative in nature. Required of all majors in biology.
PREREQUUSITES:BIOL 1200 and 1600 or equivalents and COREQUISITE: CHEM 1112 or equivalent. [0401-1]
1012. Elements of Blology. (3). Basic concepts of animal and plant life. (For students in College of Education seeking
certification in elementary education; will not satisfy science certification is elementary education; will not satisfy science
requirements for degrees in other colfeges of University.) Two lecture, two laboratory hours per week. (0401-1)
1013. Natural History and Blo-Conservation. (3). Emphasis on plants and animals in their environment, use of field work ir ples related to bio-conservation. (For students in College of Education seeking certification in elementary education; will notsatisfy science requirements for degrees in other colleges of University.) Two lecture, two labors
PRE-REQUISITE: BIOL 2001. (O401-1]
1014. General Horticulture. (3). Major aspects of horticulture with emphasis on growing ornamental plants, propagation,
disease control nutritoon pruning soll disease control, nutrition, pruning, soils and greenhouse man
agement. Two lecture, two laboratory hours per week PRE REQUISITE: BIOL 1200 or equivalent or permission of instruc tor (0108-1)
1015. Human Radiation Biology. (4). Biological effects of
various types of radiation on human body and considerations various types of radiation on human body and considerations
involved in exposure control. (Limited to students enrolled in reactor technician program in Center for Nuclear Studies). [0423-1]
1016. Principles of Animal Physiology. (4). Basic concepts of animal function, including study of many invertebrate phyla
and most classes of vertebrate organisms. Two lecture, four and most classes of vertebrate organisms. Two lecture, four
laboratory hours per week. PREREQUISITE: 8 hours of animal biology or equivalent and COREQUISITE: CHEM 3311.
(0410-1)
1017. General Ecology. (4). Plant and animal communities in relation to their environment. Two lecture, four laboratory hours per week. [0420-1]
1018. Genetics. (4). Principles of heredity, including laboratory experiments in Drosophila breed
laboratory hours per week. (0422-1]
1019. Human Genetics. (3). Genetic principles as they apply to man, including pedigree analysis, genetic counseling. genetic engineering, and eugenics. Three lecture hours per
week PREREQUISITES: BIOL 1200, 1600, and 2000 or permission of the instructor. [0422-1]
1020. History of Blology. (3). Development of science of biology. considering work of outstanding biologists and influ-
ence of their contributions. PREREQUISITE: 16 semester hours in biology or permission of instructor. (0401-1)
1021. Heredity. (3). Principles of heredity with applications to human problems, for non-science majors and recommended for students who desire a better understanding of heredity
and eugenics. Not acceptable as credit toward biology major or minor. [0422-1]
1022. General Plant Anatomy. (4). Compar ative development and structure of roots, stems, and leaves in flowering plants.
Two lecture, four laboratory hours per week. (0412-1)
1023. Morphology of Lower Plants. (4). Comparative studies
of general structure of lower plants through bryophytes. Two of general structure of lower plants through bryophytes. Two lecture, four laboratory hours per week.
1024. Morphology of Vascular Plants. (4). Comparative study of the life cycles, development, structure, reproduction, and
phylogeny of vascular plants from most primitive to most phylogeny of vascular plants from most primitive to most
advanced; possible fossile ancestors and theories of origin of advanced; possible fossile ancestors and theories of origin of
the angiosperms. Two lecture, four laboratory hours per the anglosperm
week. $00412-1]$
1025. Field Botany. (4). Introduction to collection, identification, and classification of woody and herbaceous plants in
Memphis area; emphasis on field experience. Two lecture, Memphis area: emphasis on field experie
four laboratory hours per week. (O402-1)
1026. The Relation of Microorganisms to Man. (3). Nature and activities of microorganisms, both harmitul and beneficial. as they affect welfare of man. Topics include: etiology and transmission of diseases, immunity, microbiology of water, foods, and soil. non-sclence majors. Credit not allowed for
both 3400 and 3500 . Notacceptable as credit toward brology major or minor. (041 1-1)
1027. Pathophysiology. (3). Effects of pathogenic organism upon human body and abnormalities in phystological process-
es occurring during disease. (Primarily for nursing students.) es occurr
(0408-1]
1028. General Microblology. (5). Fundamentals of bacteriology. Three lecture, four laboratory hours per week. (0411-1) 3560. Applied Microblology. (4). Introduction to microbiology pathogens. wir. food sewage, industnal processes, and pathogens. Iwo lecture four laboratory hours py
PRRRRQUISITE: BIOL 3500 or equivalent. (O411-1)
1029. Ornithology. (4). Habitats, migrations, nesting habits and classification of birds. Field trips for recognition of more common local birds organized as nee
laboratory hours per week. (0499-1]
1030. Vertebrate Embryology. (4). Development of selected vertebrate embryos from fertilized egg cell. Two lecture, four laboratory hours per week. (0427-1)
1031. Comparative Anatomy of Vertebrates. (5). Origin, development, structure, and functions of organs and systems of selected forms of vertebrates. Two lecture, six laboratory
hours per week. PREREQUISITE: BIOL 2000 or permission of hours per week. PRE
instructor. [O412-1]
1032. Vertebrate Zoology. (4). Life histories, adaptations ecology, distribution, behavior, and classification of verte brates. Two lecture, four laboratory hours per week
1033. Human Physlology. (4). Normal functions of human 3800. Parasitology. (4). Distribution, morphology. IIfe history. economic importance, and control of some parasites of man and domestic animals. Protozoa through helminths. Two
lecture, four laboratory hours per week. [0408-1] lecture, four laboratory hours per week. [0408-1]
1034. Invertebrate Zoology. (4). (4840). Major invertebrate phyla with emphasis on systematics. phylogeny, embryology,
and ecology of selected types. Two lecture, four laboratory and ecology of selected ty
hours per week. (0407-1]
1035. General Entomology. (4). Introduction to insects with emphasis on morphology, physiology, development, behavior, and ecology. Three lecture, three laboratory hours per week. (0421-1)
1036. Systematic Entomology. (4). Classification of insects. interpretation and use of keys, and preparation of a represent-
ative collection. Extended tield trips to be arranged. Two ative collection. Extended tield trips to be arranged. Two ecture, four laboratory hours per week. (0421-1)
1037. Medical Entomology. (4). Distribution, morphology, Life history, medical importance, and control of insects and other arthropods which serve as vectors for disease-producing
organisms. Two lecture, four taboratory hours per week organisms
[0421-1]
1038. Pest Control. (4). Recognition, life history, habits, and control of insect pests attacking stored grain, wood, tabrics. food products and animals. Includes some non-insect pests. food products and animals. includes some non-insect pests, laboratory hours per week PREREQUISITE' permission of laboratory hours per
1039. Problems In Blology (2-4). Individual problems pursued by qualified students under supervision of member of bology faculty: emphasis on interest and proficiency in biological research. [0401-8]
4001-6001. General Toxicology. (4). Introductory study of harmulactions of chemicals on biological mechanisms. Three lecture, two laboratory hours per week. PRE
CHEM 3312 or consent of instructor. (0426-1)
1040. Cellular Fine Structure. (3). Uiltrastructure of cells. How cells use structures to perform tasks. Survey of cells and tissues in plant and animal kingdom. Liberal use made of micrographs during lecture. Three lecture hours per week,
PREREQUISITE: BIOL 2000 or permission of instructor. (0417-1)
4031-6031. Bloenergetics. (4). Diversity and unity of energetics in living systems. Emphasis on evolutionary relationships of specific cellular components to different modes of bioenerge-
tics. Two lecture, four laboratory hours per week. PREREQUitics. Two lecture, fo
SITE: CHEM 3312 .
4050-6050. Fleld Technique In Ecology. (4). Field techniques of applied ecology covering practical training in forest, field, aquatic, and atmospheric sampling and analysis. Extended field trips. Two lecture, four laboratory hours per week. PREREQUISITE: consent of instructor. [0420-1]
4060-6060. Limnology. (4). Physical and chemical attributes of lakes, ponds, and streams; organisms of fresh water: problems of production, practical training in limnological
methods and identification of organisms. Fwo lecture, four methods and identification of organisms. Iwo lecture, four
laboratory hours per week. PREREQUISITE: one year of chemlaboratory hour
istry. (0499-1]
4080-6080. Radlation Blology. (3). Origin and characteristics of ionizing radiation with detailed discussion of radiation effects upon life processes from molecular to ecosystem level. Two lec ture, two laboratory hours per week. PREREQUISITES:
CHEM 3311 or 3312: BIOL 3070 (0423-1]
4100-6100. Organic Development. (3). Theoretical and scientific evidences concerning origin, development, and estabishment ommended for biology majors and general students as well. (0401-1)
1041. Blological Instrumentation and Methods. (2). Principles and applications of routine instruments and methods employed in biological experimentation. Such concepts and practices as welghts and measures, $\mathrm{pH}, \mathrm{UV}$ / visible spectrophotometry, chromatography, centrifugation, isotope counting. and electrophoresis. Emphasis on laboratory experi-
ences. One lecture, two laboratory hours per week [0401-1] 4130-6130. Cell and Molecular Blology. (4). Introduction to principles of molecular biology; of ultrastructure, intracellular metabolism, gene structure and function, and cell differentiaton. Twolecture, four laboratory hours per week. PREREQUISITES: BIOL 3070 and CHEM 3312. (O416-1)
4160-6160. Histological Techniques. (4). Methods of preparing tissue for examination at the light and electron
microscopic level. One lecture, six laboratory hours per week microscopic level. One lecture, six laboratory hours per week PREQUISITE BIOL 2000 or permission of instructor
4225-6225. Mycology. (4). Basic life cycles, morphology and classification of fung. Interaction of fungal organisms in environment. Two lecture, four laboratory hours per week PREREQUISITE: consent of instructor. [0499-1]
4226-6226. Phycology. (4). Morphology and reproduction of algae: emphasis on fresh water forms Selected topics on algal genetics, algal physiology, and pollution IWo lecture, four
laboratory hours per week. PREREQUISITE consent of laboratory hours per week. PREREQUISITE consent of
instructor. (0499.1)

4231-6231. Plant Physiology. (4). Principles of physiology and their application to lower plant groups. exclusive of per week. PREREQUISITE: BIOL 2000 or its equivalent.
4232-6232. Plant Physiology. (4). Principles of physiology Two lecture four laboratory hours per week. (0406-1) 4240.6240. Plant Taxonomy. (4). Principles of plant taxonomy, special attention to classitication of selected vascular
plant tamilies. Lectures, laboratory hours, and field trips. plant families. Lectures, laboratory hours, and field trips.
PREREQUISITE: BIOL 3240 or permission of instructor. PREREQU
[O499-1]
4242. Woody Plants of the Mid-South. (3). Identification and
classification of trees, shrubs and woody vines of Tennessee classification of trees, shrubs and woody vines of Tennessee
and adjacent Arkansas, western Kentucky, southeastern Missouri and northern Mississippr; emphasis on both native and cultivated woody species. Identification primarily of plants in summer condition, but also woody plants in winter. One BIOL 1200, 1600 or permission of the instructor. [0402-1] 4250-6250. Forest Ecology. (4). Developmental and structural analysis of forest types. Regional silviculture in United States. Autecology of important species. Field trips. Three
lecture, two laboratory hours per week. PREREQUISITE BIOL lecture, two laboratory hours per week. PRE
3050 or permission of instructor. [0420-1]
4400. Advanced Microblology. (4). Advanced theory and principles of microbiology, emphasis on morphology and
bacteral metabolism. Two lecture, four laboratory hours per week PREREQUISITES: BIOL. 3500 and one year of inorganic chemistry, with organic chemistry desirable. [0411-1]
4440.6440. Pathogenic Microblology. (4). Survey primarily of pathogenic bacteria, diseases they cause and methods of diagnosis;
immunity . Considerable to attention to laboratory methodsused immunity. Considerable attention tolaboratory methods used for identification of pathogenic bacteria. Two lecture. tour
laboratory hours per week. PREREQUISITE. BIOL 3500, with laboratory hours per week. PREREQUIS
organic chemistry desirable. (O411-1]
4444.6444. Immunology, (4). In vitro and in vivo reactions of antigens and antibodies, hypersensitivities, blood groups and vaccines. Two lecture, four laboratory hours per week
PREREQUISITES: BIOL 3500 and CHEM 3311. [0408-1]
4460-6460. Sanitary Bacterlology. (4). Microorganisms in relation to water and sewage, disinfection and disinfectants. Two lecture, four laboratory hours per week PREREQUISITE: BIOL 3500 or consent of instructor. [O403-1]
4470-6470. Molecular 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,
and genetic engineering. Basic for students without formal and genetic engneering. Basic for students without formal
training in molecular genetics. Two lecture. four laboratory hours per week. PREREQUISITE: organic chemistry or consent of instructor [0426-1]
4501. Virology. (3). Introductory study of viruses and Three lecture hours per week. PREREQUISITE: BIOL 3500. (0499-1)
4560-6560. Microbiology of Foods. (4). Microorganisms in natural and processed toods; origins, nature, and effects on foods, enumeration, and relation to health. Two lecture, four
laboratory hours per week. PREREQUISITE: BIOL 3500 or laboratory hours per week. PRE
consent of instructor. (O411-1]
4604-6604. 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 lecture, four 4620.6620. Vertebrate Histology. (4). Microscopic study of normal tissues and organs of vertebrate body Two lecture, four laboratory hours per week. PREREQUISITE: BIOL 3610 or
3620 or permission of instructor. [0413-1] 4630.6630. General Endocrinology. (3). Anatomy and physiology of the organs of internal secretion, role of hormones in
metabolism and development. PREREQUISITE: BIOL 3730 . [0410-1]
4640-6640. Field Zoology. (4). Identification, life history, and habitat of the animals of this locality, birds and insects are
omitted. Two lecture, four laboratory hours per week (0407-1)
4644.6644. Ichthyology. (4). Collection, preservation, identlfication, life histories, management, and economic importance of fishes. Two lecture, four laboratory hours per week [0499-1]
4651-6651. Field Techniques in Vertebrate Zoology. (4-6). Techniques in field study of vert
studies outside local area. [0407-9]
4720-6720. Vertebrate Neurology. (4). Nervous system of selected vertebrates. Three lecture, two laboratory hours per week PREREQUISITE: permission of instructor [0425-1]
4740.6740. Mammalogy. (4). Classification, distribution, life histories. economic importance. techniques of field study,
methods of collection and preservation of mammals. Two lecture, four laboratory hours per week PREREQUISITE BIOL 3700. (0499-1)

4744-6744. Herpetology. (4). Classification, distribution, Ife histories, techniques of collection and preservation, natural habitats of North American reptiles and amphibians. Two
lecture, four laboratory hours per week. PREREOUISITE BIOL lecture, four laboratory hours per week. PREREQUIS
3620 or 3700 or permission of instructor. (O499-1)
4760. Wildilife Ecology. (4). Distribution, identification, population analysis, game mapping techniques, and management of wildife. Two lecture. four laboratory hours per week.
PREREQUISITES. BIOL 3050 or 3700 or permission of instructor.
4770.6770. Mammalian Genetics. (4). Principles of heredity Three lecture, two laboratory hours per week. PREREQUI-

4820-6820. Protozoology. (4). Free living and parasitic proto20a, consideration to structure, function, taxonomy, habitat (0499.1)

4901-6901. Field Technique in Entomology. (4). Field techniques used in aquatic entomology and larval taxonomy. Two
lecture, four laboratory hours per week PREREQUISITE: lecture, four laboratory hours pe
permission of instructor- (O421-1]
4920-6920. Insect Morphology. (4). Form and structure of insects, considering both external and internal morphology. Two lecture, four laboratory hours per week. [0421-1]

4930-6930. Insect Physlology. (4). Physiology as applied to life processes of insects. Two lecture, four laboratory hours
per week. PREREQUISITE: BIOL 2000 or equivalent. (0410-1]
The following courses are taught only at the Gulf Coast
Research Lab, Ocean Springs, Mississippl. Memphis State Research Lab, Ocean Springs, Mississippl. Memphis State
University residence credit is given through affillation with Unlversity resid
the laboratory.
4010-6010. Aquaculture. (6). Review of technology, principles, and problems relating to the science of aquaculture with emphasis on culture of marine species. PREREQUISITES: 16 emphasis on culture of marine species. PREREQUISITES: 16 gy or ichthyology.
4020-6020. Comparative Histology of Marine Organisms. (1-6). Histological organization of representative marine organisms. Fixation, processing, and study of tissues using light miroscopy, transmission and scanning electron microscopy.
Structural changes and physiological changes during life cycle Structural changes and physiological changes during life cycle
of organism including histopathology. PREREQUISITE: conof organism includ
sent of instructor.

4051-6051. Marine Ecology. (5). Relationship of marine organisms to environment; includes effects of temperature, salinity, IIght, nutrient concentration, currents, food, predation and
competition on the abundance and distribution of marine competition on the abundance and distribution of marine
organisms. PREREQUISITES: 16 hours of biology including organisms. PREREQUISITES: 16 hours of biology including
general zoology, general botany, and invertebrate zoology. general zo
[0418-1]

4052-6052. Salt Marsh Plant Ecology. (4). Emphasis on botanical aspects of local marshes; includes plant identification, composition, structure, distribution and development of coastal marshes. Biological and physical interrelationships. Primary productivity and relation of mar shes to estuaries and associated fauna. PREREQUISITES: general botany, plant taxonomy, plant physiology, and general ecology or consent of instructor.
4200-6200. Marine Botany. (4). Local examples of principal groups of marine algae and maritime flowering plants, treating structure, reproduction, distribution, identification and ecolo-
gy. PREREQUISITES: ten hours of biology, including introducgy. PREREQUISITES: te
tory botany. $0418-1]$
4300-6300. Coastal Vegetation. (3). General and specific aspects of coastal vegetation, emphasis on local examples. PREREQUISITES: 10 hours of brology including general botany
4500-6500. Marine Microblology. (5). Role of microorganisms in overall ecology of oceans and estuaries. PREREQUI SITES: general microbiology and environmental microbiology or consent of instructor.
4600-6600. Marine Vertebrate Zoology and 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. Early Life History of Marine Fishes. (4). Reproductive strategies and developmental processes of marine fishes. Temporal and spacial distribution patterns, population dynamics, and ecological inter actions of fish eggs and lar vae.
Methods of sampling and identifying eggs and larvae. PREMethods of sampling and identifying eggs and larvae. PRE-
REQUISITES: Ichthyology, fisheries, biology, ecology, and/or REQUISITES: ichthyol
consent of instructor. 4646-6646. Marine Fisheries Management. (4). Overview of
practical marine fishery management problems. PREREQUIpractical marine fishery ma
SITE: consent of instructor
4700-6700. Behavior and Neuroblology of Marine Animals. (4). Behavior, neuroanatomy, and neurophysiology of marine animals with emphasis on neural mechanisms underlying behavior of selected invertebrates, fishes, birds and mam-
mals. PREREQUISITES: 16 hours of zoology and/or psycholomals. PREREQUISITES: 16 h
gy or consent of instructor.
4800-6800. Marine Invertebrate Zoology. (6). Important freeliving, marine estuarine invertebrates of the Mississippi Sound and adjacent continental shelf of the northeastern Gulf of Mexico; emphasis on structure, classification, phylogenic relationships, larval development and functional processes.
PREREQUISITES: 16 hours of zoology including introductory PREREQUISITES: 16 hou
invertebrate zoology. 4844-6844. Parasites of Marine Animals. (6). Parasites of
marine animals, emphasis on morphology, taxonomy, life marine animals, emphasis on morphology, taxonomy, life
histories and host parasite relationships. Lecture, laboratory histories and host parasite relationships, Lecture, laboratory
and field work included PREREQUISITES: general parasitology and field work included PRE
or consent of instructor.
4850.6850. Fauna and Faunistic Ecology of Tidal Marshes. (4). Survey and discussion of taxonomy, distribution, trophic relationships, reproductive strategies and adaptation of tidal
marsh animals; emphasis on those occurring in northern Gulf marsh animals; emphasis on those occurring in northern Gulf
marshes. PREREQUISITES: 16 hours of biology and junior marshes. PREREQUISITES: 16 hour
standing or consent of instructor.

Graduate courses in Brology: For course descriptions and further detauls of the graduate program, see The Bulletin of The Graduate School.

## CHEMISTRY

PROFESSOR JAMES C. CARTER, 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 Protessional Training of the American Chemcal Society, and is undertaken primarily by students who desire to go directly to positions in chemical industry, or to enroll for 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 civil, mechanical, or electrical engineering. CHEM 1100 is a one-semester course designed for those students of limited preparation in mathematics whose curriculum callis for the CHEM 1111-1112 sequence. CHEM 1051-1052 is a twosemester sequence designed for students interested in the
science of chemistry and its impact on modern society. This science of chemistry and its impact on modern society. This
sequence is not credited toward a major in chemistry or sequence is not credited toward a major in chemistry or
physics but contributes to fulfilling the University science requirements of other majors. It is normally undertaken by those who require only one year of chemistry in satisfying
their degree requirement. Credit may not be received for both their degree requirement. Credit may not be recerved for both
CHEM 1100 and CHEM 1111 simultaneously. PSCI 1031-1032 is an introductory 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.

## E070 CHEMISTRY (CHEM)

1000. Chemistry of Life Processes. (4). Chemistry as related to understanding of life processes. Implications of topics from general and organic chemistry, as well as biochemistry. Three lecture, two laboratory hours per week. This course will not be credited toward a major in chemustry, physics, physical science, or engineering, nor does t
scrence requrement. (5208-1)
1001.Chemlstry for Nurses. (3). Topics from various areas of chermistry which are applicable to nursing proféssion. Three lecture hours per week. Will not be counted toward University general degree requirement for science nor toward major in College of Arts and Sciences. May be counted as free elective in all colleges except Engineering. (5208-1]
1001. Chemlstry for Reactor Techniclans. (3). Chemistry of nuclear power plants: emphasis on water chemistry and
materials used in reactor construction. Forty contact hours of materials used in reactor construction. Forty contact hours of instruction. Not applicable toward major or mical science. Course created for and limited to try or physical science. Course created for and limite
students enrolled in Nuclear Studies Program. (1905-1]
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. (1905-1]
1003. College Chemistry. (4). Continuation of CHEM 1051; emphasis on elementary organic and biochemistry. Three lecture, two labistry or physics. PREREQUISITE: CHEM 1051 . (1905-1)
1004. Introduction to Chemlstry. (3). For students whose curriculum requires CHEM 1111, but who feel their background is inadequate. Emphasis on scientific calculations and properties of matter. Three lecture hours per week Not
credited towardmalorinchemistry, physics, physicalsclence, credited towardmajor in chemistry. physics, physical science, or engmeering, nor does it satisfy any part of scrence require-
ment for any degree COREQUISITE: MATH 1211 or 1212 ment for any degree CO
recommended. (1905-1]
1005. Princlples of Chemistry. (4). For students who are majoring in one of the physical sclences, biology, mathematics or engineering, or who are toilowing a pre-protessional program requiring additional chemistry. Three lecture, three 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. COor better on the mathematics section, or CHEM
REQUISITE: MATH 1211, 1212, or 1321. (1905-1)
1006. Principles of Chemistry. (4). Continuation of CHEM 1111. Three lecture, three laboratory hours per week. PREREQUISITE: CHEM 1111 . (1905-1]
1007. Corrosion Chemistry. (3). Basic principles underlying corrosion of metals, effect of corrosion, methods of prevention in design, use, and storage of materials, and faluure case histories in generic power plants Emphasis on special corrosion processes in nuclear pressure vessels and tubing
PREQUISITES: PHYS 2112. CHEM 1010. COREQUISITE: MATH 2321. [1905-1]
1008. Chemical Thermodynamics I. (3). Thermodynamics. including basic concepts of energy flow and transformation; introduction of thermodynamic properties such as enthalpy and entropy to illustrate application of laws of thermodynamics. PREREQUISITES: MATH 2321, PHYS 2512. [1905-1]
1009. Chemical Thermodynamics II. (3). Application of princlples developed in CHEM 3030 to analysis of operation of ples developed in CHEM
nuclear power plant. PREREQUISITE: CHEM 3030 or PHYS nuclear power
4510 . (1905-1]
1010. Radiochemistry for Nuclear Plants. (3). Chemistry of fission products in nuclear fuel, including effect of their cal reactions of fission products and their impact on environment PREREQUISITES: CHEM 3010, PHYS 4220. [1905-1] 3201. Quantitative Chemical Analysis Laboratory. (2). (formerly 3404). Application of the techniques of quantitative analysis in areas described in CHEM 3211. Six laboratory
hours per week. PREREQUISITE OR COREQUISITE: CHEM hours
3211
1011. Quantitative Chemical Analysis. (2). (formerly 3400). Theory and practice of modern chemical analysis. Includes: acid-base, redox, and complexion equilibria, separation methods, absorptiometry, flame sepctroscopy, and electroanalytical methods. Two lecture hours per week. PREREQUISITE CHEM 1112 . COREQUISITE: CHEM 3201
1012. General Organic Chemistry Laboratory. (1). Emphasis on laboratory techniques as applied to synthesis and class reactions. Three laboratory hours per week. PREREQUISITE:
CHEM 1112. PREREQUISITE OR COREQUISITE: CHEM 3311 . 3302. General Organlc Chemistry Laboratory. (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 laboratory hours per week.
PREREOUISITES: CHEM 3311 and 3301 . COREQUISITE OR PREREQUISITE: CHEM 3312. [1907-1]
1013. Synthesis and Identification of Organic Compounds. (2). Synthesis, separation, and identification of organic compounds in the laboratory. Six laboratory hours per week.
PREREQUISITE: CHEM 3301 . COREQUISITE OR PREREQUISITE: CHEM 3312.
1014. General Organic Chemistry. (3). Systematic study of preparations and properties of organic compounds, including interpretations based on modern theories of organic chemis halogen derivatives, and alcohols. Three lecture hours per halogen derivatives, and alcohols. Three lec
week. PREREQUISITE: CHEM 1112. (1907-1]
1015. General Organic Chemistry. (3). Continuation of CHEM 3311: emphasis on more important functional derivatives of aliphatic and aromatic hydrocarbons. PREREQUISITE: CHEM 3311 (1907-1]
1016. Elementary Physical Chemistry. (3). Abbreviated course in physical chemistry. Includes elementary thermodynamics, phase transitions, solution chemistry, electrochemis try, kinetics, colloidal and surface chemistry, and molecula 3411 , but not both. Three lecture hours per week. PREREQUF34IT. but not both. Three lecture hours per week.
SITES: CHEM 3211 or 3311 . PHYS 2112 or 2512 .
1017. Physical Chemistry Laboratory. (2). Measurements of physical properties, reaction rates, and equilibria. Application of electrochemistry and calorimetry. Six laboratory hours per week PREREQUISITE CHEM 3411. COREREQUISITE OR PREREQUISITE: CHEM 3412.
1018. Elementary Physical Chemistry Laboratory. (1). Mea surement of physical quantities, including equilibrium con-
stants, heats of reaction, molecular weight, viscosities, and stants, heats of reaction, molecular wetght, viscosities, and
reaction rate constants. Three laboratory hours per week. COREQUISITE: CHEM 3401. [1908-1]
1019. Physical Chemistry. (3). Thermochemical 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 2321. [1908-1]
1020. Physical Chemistry. (3). Continuation of CHEM 3411 emphasizing kinetics of chemical reactions, quantum chemistry, chemical bonding, statistical mechanics, spectroscopy,
and other methods of structure determination. Three lecture and other methods of structure determination. Three ec
1021. Instrumental Methods. (3). Analytical instrumental techniques including molecular spectroscopy, chromatography, atomic spectroscopy, and electrochemical analysis. One lecture, six laboratory hours per week. PREREQUI
CHEM $3201,3211,3311$, or permission of instructor.
1022. Environmental Chemistry. (3). Chemical phenomena occuring in soil, atmospheric and aquatic environments: consideration of natural resources and energy. Three lecture
hours per week PREREQUISITE: CHEM 3311 . hours per week PREREQUISITE: CHEM 3311
4111-6111. Inorganic Chemistry. (3). Theoretical and applied inorganic chemistry. Stress on relationship of structure and bonding to properties of elements and compounds. Includes introductory molecular orbital theory, coordination compounds and or ganometallics. ligand field theory, nonaqueous solvent systems. and reaction mechanisms. Three lecture hours per week. PREREQ
1023. Speclal Topics In Inorganic Chemistry. (1-6). Topics of current interest to undergraduates pursuing B.S. degree. May REQUISITE: CHEM 3312 and permission of instructor.
1024. BIOINORGANIC CHEMISTRY. (1-3).
1025. ORGANOMETALLIC CHEMISTRY. (1-3).
1026. INORGANIC SYNTHESIS. (1-3).

4220-6220. Advanced Instrumental Analysis. (4). Advanced topics in electrochemical, spectroscopic, and chromatogra phic methods, and an introduction to electronic and optical principles of chemical instrumentation. Two lecture, six laboratory hours per week. PREREQUISITE: CHEM 3412.
4299. Speclal Toplcs in Analytical Chemistry. (1-3). Topics of current interest to undegraduates pursuing B.S. degree. May REQUISITE: CHEM 3412 and permission of instructor.

1. ATOMIC SPECTROSCOPY. (1-3).
2. Special Topics In Organic Chemistry. (1-3). Topics of current interest to undergraduates pursuing B.S. degree. May Re repeated CHEM 3312 and permission of the instructor [1907-8]

OO1. HETEROCYCLIC CHEMISTRY. (1-3).
002. TERPENES AND STEROIDS. (1-3).

003 ORGANOPHOSPHORUS CHEMISTRY (1-3).
004. PHYSICAL ORGANIC CHEMISTRY. (1-3).
005. POLYMER CHEMISTRY. (1-3).
4499. Special Topics in Physical Chemistry. (1-3). Topics of current interest to undergraduates pursuing B.S. degree. May
be repeated for maximum of 6 semester hours credit. PREbe repeated for maximum of 6 semester hours credi
REQUISITE: CHEM 3412 and permission of instructor.

1. MOLECULAR SPECTROSCOPY. (1-3).
2. QUANTUM CHEMISTRY. (1-3).

003 CHEMICAL KINETICS. (1-3)
004. CHEMICAL THERMODYNAMICS. (1-3)
005. ELECTRON SPIN RESONANCE SPECTROSCOPY. (1-3).
4501-6501. Blochemistry Laboratory. (1). Investigation of physical and chemical properties of compounds of biological interest by common laboratory techniques. Assay of enzymes and enzyme kinetics stressed. Three laboratory hours per
week PREREOUISITES: CHEM 3302 or 3303 and 3312 . PREWeek. PREREQUSITES: CHEM 3302 or 330
REQUISITE OR COREQUISITE: CHEM 4511.
4502-6502. Blochemistry Laboratory. (1) Biochemical laboratory techniques; emphasis on fractionating biological samples and measuring metabolic activity. Three laboratory hours
per week. PREREQUISITE: CHEM 4511. [O414-1] 4511-6511. Blochemistry. (3). Chemistry of amino acids and proteins related to their properties in biochemical systems. Enzymology, including kinetics and contormation studies. Coenzymes and their functions. Chemistry of carbohydrates.
lipids. and nucleotides. Three lecture hours per week PRElipids. and nucleotides. Three lecture hours per week. PRE-
REQUISITE: CHEM 3312 . COREQUISITE: CHEM 4501 recomREQUISITE: CHEM
mended. $0414-1$ )
4512-6512. Blochemistry. (3). Continuation of CHEM 4511. Metabolism of carbohydrates, amino acids and nucleotides. Blochemistry of DNA and RNA, including their relationship to biosynthesis of proteins. Metabolic control. Three lec
hours per week PREREQUISITE: CHEM 4511. [0414-1]
4599. Speclal Topics In Blochemistry. (1-3). Topics of current interest to undergraduates pursuing B.S. degree. May be
repeated for maximum of 6 semester hours credit. PRERErepeated
QUISITE: CHEM 4512 and permission of the instructor

1. ENZYME KINETICS AND MECHANISMS. (1-3)
2. DNA REPLICATION. (1-3).
3. BIOCHEMISTRY OF DISEASE STATES. (1-3).
4. MACROMOLECULAR STRUCTURE AND FUNCTION. (1-3).
4911-6911. Chemical Literature and Seminar. (1). Use of chemical literature, writing of technical reports, and oral
presentation of investigative reports. One lecture hour per presentation of investigative reports. One lectu
week. PREREQUISITE: permission of instructor.
5. Chemical Research. (1). (See description under CHEM 4991. Chemical [1905-8]
6. Chemical Research. (2). (See description under CHEM 4993. (1905-8)
7. Chemical Research. (3). Introduction to basic research, Student collaborates with staff member on problem of mutual interest selected from fields of analytical, inorganic, organic, and physical chemistry, and biochemistry. Experience in effective laboratory techinques, critical experiment design,
and sclentific reporting. To recelve credit toward a major in and sclentific reporting. To recelve 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 these research courses. Three to nine laboratory hours per
week. PREREQUISITE: CHEM 3312 and permission of instrucweek. PREREQUISIE: CHEM 3312 and permission of instruc-
tor. Students expected to complete prospectus in consulta tion with a faculty sponsor before registering for this course. [1905-8]

## PHYSICAL SCIENCE (PSCI)

1031. Physical Sclence. (3). Introductory course; emphasis on fundamental principles and concepts of physical science Two lecture, two laboratory hours per week. [1901-1]
1032. Physical Sclence. (3). Continuation of PSCI 1031. Two lecture, two laboratory hours per week. PREREQUISITE: PSCI 1031. (1901-1)
1033. Glass Manipulation. (2). Laboratory course in fundamentals of glass manipulation and construction and reparr of simple laboratory apparatus. Six laboratory hours per week PREREQUISITE: senior standing. (1905-1)
Graduate courses in Chemistry and Physical Science: For
course descriptions and further details of the graduate program, see The Bulletin of the Graduate School.

## COMPARATIVE LITERATURE

For information, contact the Department of English. Interest ed students should see the requirements for the major anc minor for Comparative Literature.

## E090 COMPARATIVE LITERATURE (COLI)

4400. The Practice of Comparative Literature. (3). Introduction to theory, methods, and objectives of comparative literature. Required of comparative hiterature majors and minors
(1503-1) 4791. Studles In Comparative Literature. (3). Selected
authors, works, or literary problems. May be repeated for credit up to maximum of 6 hours. A maximum of 3 hours credit is accepted toward Comparative Literature major or mınor (1503-1)

# CRIMINAL JUSTICE 

## ASSOCIATE PROFESSOR WILLIAM V. PELFREY, Chairman <br> Room 405, Mitchell Hall

## E250 CRIMINAL JUSTICE (CJUS)

1100. Introduction to Criminal Justice. (3). Introduction to American criminal justice system in its three dimensions: police, courts, and corrections, tracing its development from
anclent and early English beginnings to present time. (2105-1) 2100. Concepts and Issues in Criminal Justice. (3). Topics emphasizing specific problems in crimunal justice system. Focus on integration of police, courts, and corrections subsystems and their relations to community. PREREQUISITE: CJUS 1100. [2105-1]
1101. Street Law: A Course In Practical Law. (3). Practical application of law to everyday problems. Legal processes and resour ces avalable to every citizen; case materials in criminal consumer, environmental, and family law with reference to their relationship in criminal justice context. [2520-1]
1102. Research and Statistics in Criminal Justice. (3). Statistical and non-statistical approaches employed in contempo rary criminal justice; review and analysis of current findings. [2105-1]
1103. Drug Addiction and Alcohollsm. (3). Cultural and medical aspects of use of alcohol and various other drugs: consideration of roles of law enforcement and corrections in consideration (2105-1)
1104. Poilice In America. (3). (3526). Comparative analysis of problems, procedures, organization, and functions of effective police organization. (2105-1)
1105. Courts and Court Administration. (3). Court operations including assignments and specialization of judges, document preparation and calendaring of cases; consideration of problems involving court personnel, funds and other property in court's custody and maintaining record of prisoners awaiting trial in criminal cases. [2105-1]
1106. Corrections In America. (3). Principles of organization and management in corrections administration. Concepts of organizational behavior applied to prisons and other detention acilities and special programs in institutional management PREREQUISITE: permission of instructor. [2105-1)
1107. Law and Soclety. (3). Law as system of control and as mechanism for resolution of conflict. Relationship of taw to political, economic and social systems critically analyzed and development of legal profession studied. [2105-1]
1108. Criminal Procedure I. (3). (4526). General view of criminal justice system as to application of principles of U.S. process of law" in federal and state prosecutions and application of Exclusionary Rule of Evidence. [2105-1]
1109. Criminal Procedure II. (3). Application of various constitutional principles to investigative and prosecutive procedures of criminal justice process, including arrest, search and seizure, interrogation, identitication procedures and trial and
post-trial proceedings. PREREQUISITE: CJUS 3521. [2105-1]
1110. Crime and Criminology. (3). Milleu 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 Directed Study In Criminal Justice. (1-4). individual directed reading and research in spectal areas of interest in field of crim
of director. [2105-8]
1112. Crime and Criminal Typologles. (3). Classitication 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 background crime, and career prognosis. [2105-1]
1113. The Administration of Criminal Justice. (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 revocation.
1114. Ethical Dilemmas In CrImInal 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 laws, us of informers, plea bargaining, Judicial discretion, and capital punishment. Subcultural norms and dilemmas they present to riminal justice practitioner. [2105-1]
1115. Internshlp in CrImInal Justice. (1-3). Experience in actual criminal justice setting; internship initiated by department in agency, and both department and agency supervise 6 hours. PREREQUISITE: senior standing and/or approval of instructor. [2105-5]
1116. Seminar In Criminal Justice. (3). Current criminal justice issues and problems, with review of professional 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. [2105-1]
1117. Prevention and Deterrence of Crime. (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 currenteffectiveness and future potential analyzed in terms of currenteffectiveness and future potential
for crime suppression. [2105-1] for crime suppression. [2105-1]
1118. Comparative Police 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.
1119. Public Relations and the Poilce. (3). Role of law enforcement personnel and admınistrators in police-community relations; forms and possible approaches for improving com- munications with public: role of police officer in improvement of public image. [2105-1]
1120. Organized Crime. (3). Nature, structure, characterisics, and investıgation of syndicated crime; its impact on social tics, and investigation of syndicated crime, its impact
and economic conditions in this country. [2105-1]
1121. Prlvate 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 corporate security.
4424-6424. The American Prison System. (3). (3424). Historical development, organizational structure, program content, and current problems of American correctional institutions. [2105-1]
4425-6425. Community Based Correctlons. (3). Community based strategies for dealing with criminal offenders. Includes parole, probation, pardon, diversion programs, community residential services, restitution, role of voluntary organizatons, and correctional techniques suited to non-institutional settings. [2105-1]
1122. Correctlonal Casework. (3). Involves integrated phases social investıgation; 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, classificastudents majoring in criminal justice. [2105-1]
4520-6520. Substantlive CrIminal Law. (3). (3520). Substance of the crime, including common-law sources and basic princtples, types of offenses, responsibility, Justification and excuse. and related areas. [2105-1]
1123. 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, materiality and relevancy, privilege, eyewitness identification. [2105-1]
4532-6532. Constitutional RIghts of Prlsoners. (3). Legal status of persons during preconviction and post-conviction confinement; includes factors involving discipline, legal serv ices, communication, medical aıd, and related matters; consideration of civil and criminal liability of prison officials PREREQUISITE: CJUS 3521. [2105-1)
4533-6533. The Juvenlle Justlce System (3). History, organtzation, programs and procedures of agencies charged with control and prevention of juvenile deliquency including police, juvenile units,
cies. $(2105-1)$
4541-6541. Causes of Crime and Dellnquency. (3). Systematc survey of criminal behavior as approached from various disciplines and perspectives. Crıminogenic influences of society and the criminal justice system, methods of reducing crime and delinquency
For graduate course descriptions and details of the graduate program, see the Graduate Bulletm.

## ENGLISH

PROFESSOR JOSEPH K. DAVIS, Chairman
Room 467. Patterson Hall

All candidates for graduation at Memphis State University are required to complete ENGL 1101 and 1102 or their equivalents, and any two of the following: ENGL 2101, 2102, 2103, 2104, 2105, 2106 or their equivalents. Freshman and sophomore sequences must be scheduled in consecutive semesters through the treshman and sophomore years, or untIl completed. ENGL 1101 and 1102 must be taken in sequence; no credit will be allowed for ENGL. 1102 until 1101 has been completed successfully.

Students with a special interest in international literary relationships and critical theory should see the requirements for the Comparative Literature major and minor

## E080 ENGLISH (ENGL)

101. English as a Second Language. (1). Introduction to English. Concentration on aural-oral skills; introduction to grammar and sentence structure. Two weekly audio-lingual English only. Admission by placement only. [1508-1]
102. English as a Second Language. (1-2). Intermediate reading and composition. Selected readings, review of grammar, and introduction to construction of paragraphs. Audiolingual laboratory optional. Open to non-native speakers of English only. Admission by placement only. [1508-1]
103. English as a Second Language. (1-3). Advanced composition. Advanced readings, construction of essays, and study of mechanical writing skills. Audio-lingual labor atory option
Open to non-native speakers of English only. [1508-1)
NOTE: The accumulation of three credit hours from the above courses and successful completion of 0103 will be
considered the equlvalent of ENGL 1101. Not more than 3 considered the equivalent of eredit may be accumulated In 0101, 0102, 0103 .
104. Introduction to Composition. (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 Enghish requirement for any University degree. [1501-1]
105. Engilsh Composition. (3). Training in writing of Engish sentences. paragraphs, and longer compositions related to reading of essays and short fiction. PREREQUISITE ENGL reading of essays and short fiction. PREREQUIITE. ENGL
1100 with grade of C or better. or ACT Engish score of 19 or above. or SAT verbal score of 450 or above, or satisfactory above. or SAT verbal score of 450 or above, or satisfactory
completion of placement essay written under supervision of completion of placement essay
Department of English. (1501-1]
106. English Composition and Analysis. (3). Fur ther training in English composition related to introductory study of poetry drama, and novel. PREREQUISITE: ENGL 1101 or equivalent [1501-1]
107. English Literature. (3). Selected readings in English iterature from beginnung through eighteenth century; attention to development of literary forms and to cultural context Composition and critical thinking beyond levels expected of treshmen. PREREQUI
equivalents. (1502-1]
108. 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 fresh men. PREREQUISITIES: ENGL 1101 and 1102 , or their equivalents (1502-1)
109. Modern European Fiction. (3). Selected readings in British and Continental fiction of nineteenth and twentieth centuries: attention to development of fictional forms and to making of modern European intellectual and liter ary tradition. Composition and critical thinking beyond levels expected of freshmen. PREREQUISITES: ENGL 1101 and 1102 , or their equivalents. (1502-1)
110. Poetry and Drama. (3). Selected readings of poems and plays; attention to development of genres. Composition and critical thinking beyond levels expected of freshmen. PRE REQUISITES: ENGL 1101 and 1102, or their equivalents. [1502-1]
111. American Fiction. (3). Selected readings in American fiction of mineteenth and twentieth centuries: consideration of characteristic themes and techniques of both American novel and American short story. Composition and critical thinking beyond levels expected of freshmen. PREREQUISITES: ENGL beyond avels expecteer equivalents. [1502-1]
1101 and 1102 , or their equin
112. Contemporary Literature. (3). Selected readings in poetry, drama, and fiction of America. Britain, and Europe. written since Worid War II; attention to development of literary modes and to cultural context. Composition and critical thinking beyond levels expected of freshmen. PREREQUI-
SITES: ENGL. 1101 and 1102 , or their equivalents. (1502-1]
Note: No student may enroll for an upper-divislon English course until he has completed satisfactorlly ENGL 1101 , 1102, or their equivalents, and any two of the following:
ENGL 2101,2102, 2103,2104, 2105, 2106, or thelr equlvalents.
113. Special Topics in Advanced English. (1-3). Literary or linguistic topic or problem. Content may vary from semester linguistic topic or probl
to semester. (1502-1]
114. British Literature of the Medieval Period. (3).
115. British Literature of the Sixteenth Century. (3).
116. British Literature of the Seventeenth Century. (3)
117. British Literature of the Restoration and EIghteenth Century. (3).
118. British Literature of the Romantic Perlod. (3).
119. British Literature of the Victorlan Period. (3).
120. British Literature of the Twentleth Century. (3).
121. American Literature Before 1860. (3).
122. American Literature Since 1860. (3).
123. The American Novel. (3). Reading of representative American novels of nineteenth century; consideration of their relation to English and European work and to American developments in genre. [1502-1]
124. The American Novel. (3). Reading of representative American novels from 1900 to present: attention to relevant literary and
[1502-1]
125. Practical English Grammar. (3). Extended study of the fundamentals of English grammar, sentence structure, usage. diction, punctuation, and spelling.
126. Modern English Grammar. (3). Introduction to current grammatical theory. especially transformational generative grammatical theory. especially transformational generative and symantics of English. Netther a review of grammar nor a and symantics of English.
remedial course. (1501-1]
127. 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 language diversity and change through history and contact. Discussion of language and thought, origin of language, and other topics. (1501-1)
128. 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. [1501-1]
129. 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. [1502-1]
130. 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 technical publications such as reports, data analyses, and distributing such writing in printed form. (1502-1]
131. Internship in Writing. (1.6). Supervised on-the-job training as a writer in such fields as business, industry, and
government. PREREQUISITES. ENGL 3602 and approval of government. PREREQUISTES: ENGL 3602 and approval o [1502-5]
132. Intermedlate 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. An elective which will not fulfill any specific English requirement. PREREQUISITES: ENGL 1101 and 1102 or their equivalents. (1501-1)
133. Introduction to Creative Writing. (3). (2601). Introduction to the writing of fiction and poetry.
134. Theory and Practice in Literary CriticIsm. (3). Introduc tion to theory of literature related to exercises in practical criticism. (1501-1)
135. Senlor Honors Seminar I. (3). Intensive study of problem in language or literature. Enrollment limited to English honors students. (1502-1]
136. Senior Honors Seminar II. (3). Intensive study of problem in language or literature. Enrollment limited to Eng ish honors students. (1502-1)
4100-6100. Special Toplcs In Language or Literature. (3). Focus on etther language or literature. Repeatable to maximum of 6 hours.
4231-6231. Chaucer. (3). Chaucer as literary artist, including reading of representative works and discussion of their philosophical and social context. [1502-1]
137. Shakespeare's Tragedles. (3). Selected tragedies: detailed critical examination of at least five. (1502-1]
138. Shakespeare's Comedles and Historles. (3). Selected comedies and histories. [1502-1]
4234-6234. Milton. (3). Milton's development as literary artist; emphasis on his poetry but some attention to his prose [1502-1]
4241-6241. British Novel Through Austen. (3).
4242-6242. British Novel Since Scott. (3).
4251-6251. British Drama To 1642. (3).
4252-6252. Brltish Drama Since 1660. (3).
4321-6321. American Literature: Major Writers Before 1860. (3).

4322-6322. American Literature: Major Writers Since 1860. (3).
4323. Southern Literature. (3). Southern literature from beginning to present; emphasis on twentieth-century authors 1502-1]
4371. Black American Literature. (3). Black American writing. rom beginning to present: emphasis on major authors [1502-1]
4381. Introduction to Folk LIterature. (3). Traditional folk iterature; emphasis on such forms as tale, legend, myth. story, and joke. Role and importance of literature in folk culture and in modern society. Emphasis on collection of material in Mid-South region. (1502-1)
4411-6411. European Literature 1. (3). (3411). Major works
and writers from Antiquity through the Renaissance. (1503-1)
4412-6412. European Literature II. (3). (3412). Major European literary works since the Renaissance. [1503-1]
4423. Modern British and American Poetry. (3).
4424. Modern British and American Fiction. (3).

4441-6441. European Fictlon. (3). (3441). Movements and writers important to development of Continental fiction from late 18 th century to present. (1503-1)
4461. Biblical Literature. (3). Selected books from Old and New Testaments; emphasis on literary value and consideration of place of Bible in worid Iiterature. [1503-1]
4501-6501. History of the English Language. (3). Relationship of English to other Indo-European languages; etymology and
effects of word-borrowing, word-formation, and semantic effects of word-borrowing, word-formation, and semantic change on English vocabulary; and development of English ounds, inflections, and syntax. (1505-1)
4511. The Language of Literature. (3). Intensive study of
language of literature, especially its structure and its styles. language of literature, especially its structure and its styles Discussion of poetry and other modes, of figurative language and how it creates meaning. [1501-1]
4521. Language and Soclety. (3). Place of language in society and how it creates and reflects social relationships. Geographand how it creates and rocial dialects, male/female differences, and lanical and social dialects, male/female differences, and lan-
guage of various subgroups within our culture. Intensive guage of various subgroups within our culture. Intensive
examination of implications of language differences. [1501-1] 4601. Poetry Workshop. (3-6). The nature of poetry, critical approaches to the poem, and practical experience in writing and revising text. Repeatable to maximum of 6 hours with permission of instructor. (1507-1]
4602-6602. Advanced Compositlon (3). Princıples involved in writing clear expository prose. Emphasis on applicaton of these principles; analysis of readings and of student's writing. Repeatable to maximum of 6 hours. [1501-1]
4603. Fiction Workshop. (3-6). Nature of short story and onger forms of fictıon, critical approaches to fiction, and practical experience in writing and revising text. Repeatable to maximum of 6 hours with permission of instructor. [1507-1]
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.
4605-6605. 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
4801-6801. Research, Report, and Term Paper Writing. (3). Principles and practices in planning, researching, organizing, writing, and documenting a $3000-4000$ word paper on sub
sciences, engineering, busuness, law, etc.). Includes proper methods of hibrary research, and preparation of formal manuscript, including abstract. [1502-1]
4900. Independent Study. (1-3). A selected topic or problem in the field of literature, language, or writing. PREREQUISITE: consent of departmental adviser.
4996. Honors Thesis. (1-3). Under direction of faculty mem ber, and with approval of Honors Committee and chairman, each honors student will write a thesis based on primary and/or secondary sources. PREREQUISITE: admission to department honors program. (1501-8)
Graduate courses in English: For course descriptions and further detads of the graduate program. see The Bulletm of
The Graduate School.

## FOREIGN LANGUAGES

# PROFESSOR RICHARD O'CONNELL, Chairman 

Room 375 A, Dunn Mathematics
Foreign Languages Bulding

Students with a special interest in international literary relationships and critical theory should see the requirements for the Comparative Literature major and minor

## E110 CLASSICS (CLAS)

With the exceptlon of CLAS 4791, none of the following courses may be used to satisty the forelgn language requirements, nor may they be applled toward a major in class/cal languages.
2021. Word OrigIns and Vocabulary Development. (3). Latin and Greek elements found in English; emphasis on building of standard English vocabulary. (1101-1)
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. [1101-1]
3021. Sclentific Terminology. (3). Origin and derivation of
words used in medicine and the sciences; emphasis on buildwords used in medicine and the scien
ing of scientific vocabulary. [1101-1]
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. Recomslavery, religion, medicine, la
mended for teachers. [1109-1]
3413. Greek Literature in Translation. (3). Reading and analysis of masterpleces of Greek literature in English translation from Homer to Lucian. Emphasis on development of literary types. (1503-1)
3414. Roman Literature In Translatlon. (3). Reading and analysis of masterpieces of Roman literature in English translation from origins to close of Silver Age. Emphasis on genres of Roman literature. [1503-1]
4791. Speclal Studles in Classics. (1-3). Topics in classical literature and civilization. May be repeated for maximum of six hours credit. PREREQUISITE: permission of chairman and instructor. [1504-8]

## E140 GREEK (GREK)

1101. Elementary Greek. (3). Elements of Greek grammar and syntax, practice in reading and translation. [1110-1]
1102. Elementary Greek. (3). Completion of basic grammar and syntax, with additional readings. PREREQUISITE: GREK 1101 or the equivalent. $1110-1$ ]
1103. Xenophon. (3), Readings and interpretation of Xenophon's Anabasis. PREREQUISITE: GREK 1102 or the equivalent. (1110-1)
1104. Greek HIstorlans. (3). Reading and analysis of selections from writings of
historians. [1110-1]
1105. Greek Tragedy. (3). Reading and analysis of selected
tragedies of Aeschylus. Sophocles, and Euripides. [1110-1]
1106. Plato's Apology, Crito. (3). Reading and analysis of dialogues of Plato which give a prelude to death of Socrates. dialogues
1107. Homer. (3). Reading and analysis of selections from Homer's Itrad and Odyssey. (1110-1)

## E170 LATIN (LATN)

1101. Elementary Latin. (3). Elements of grammar; practice in
Latin composition and translation. (1109-1] Latin composition and translation. (1109-1)
1102. Elementary Latin. (3). Completion of elementary Latin grammar, with additional readings. PREREQUISITE: LATN 1101 or the equivalent (1109-1)
1103. Intermedlate Latin. (3). Review of basic Latin grammar with reading selections from The Golden Fleece and Roman history. PREREQUISITE: LATN 1102 or the equivalent. history. P
1104. Intermedlate Latin. (3). More advanced readings from major authors. PREREQUISITE: LATN 2201 or equivalent. [1109-1]
1105. Roman Historlans. (3). Readings and analysis of selections from Caesar, Livy, Tacitus, and Suetonius; emphasis on nature of Roman historiography. (1109-1)
1106. Vergll. (3). Reading and analysis of the Aeneid. (1109-1) 3811. Ovid. (3). Reading and analysis of the myths in Ovid's Metamorphoses. [1109-1]
1107. Cicero. (3). Reading and analysis of De Amicitia and De Senectute. [1109-1]
1108. Roman Letter Writers. (3). Reading and analysis of
Cicero's Letters. [1109-1] Cicero's Letters.
1109. Roman Satire. (3). Reading and analysis of satires of
Horace, Persius, and Juvenal. (1109-1] Horace, Persius, and Juvenal. [1109-1]
1110. Elegy, Lyric, and Epigram. (3). Reading and analysis of selections from Catullus, Horace, Tibellus, Propertius, and Martial. (1109-1)

## E210 LANGUAGES (LANG)

1701-1702. Speciai 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 requirement for degrees in College of Arts and Sciences specifies that all twelve semester hours (or six for some protessional degrees) must be in same language; (2) unless demand is sufficlent and unless teachers are available, the University cannot offer enough courses to enable student to meet these requirements. [1101-1]
2701-2702. Special Studies in Modern Foreign Languages. (3, 3). Continuation of Language 1701-1702. Offered provided instructor is available and there is sufficient student enrollment. [1101-1]
4701.6701. Language Study for Reading Knowiedge. (3). Introduction to reading of French, German, Russian, or Spanish. Intensive drill in recognizing and interpreting grammatical structures, especially those peculiar to scholarly written languaging meaning of words not previously encountered. Reading of texts in target language at sight or after preparation. No previous knowledge of language required. Does not fulfill any part of undergraduate language requirement and cannot be applied toward major.

001 . FRENCH [1102-1]
002. GERMAN [1103-1]
003. RUSSIAN [1106-1]
004. SPANISH [1105-1]
4702.6702. Language Study for Reading Knowiedge. (3). Continuation of LANG 4. Further work in recognizing and scholarly texts. Does not fulfill any part of undergraduate language requirement and cannot be applied toward major.

1. FRENCH [1102-1]
2. GERMAN [1103-1]
3. RUSSIAN [1106-1]
4. SPANISH [1105-1]

## E120 FRENCH (FREN)

1101. Elementary French. (3). Elements of grammar and pronunciation; reading of simple selections. (1102-1]
1102. Elementary French. (3). Reading selections of increas ing difficulty. PREREQUISITE: FREN 1101 or equivalent (1102-1)
1103. Intermediate French. (3). Comprehensive review of French grammar, exercises in writing, and readings in French literature and culture. PREREQUISITE: FREN 1102 the equivalent. (1102-1]
1104. Intermediate French. (3). More advanced readings. PREREQUISITE: FREN 2201 or equivalent. [1102-1]
1105. Conversation and Composition. (3). PREREQUISITE: FREN 2202 or equivalent. [1102-1]
1106. Conversation and Composition. (3). PREREQUISITE: FREN 3301 or permission of instructor. (1102-1)
1107. French Civilization. (3). Culture of France as reflected in its history, social institutions, art, and music. Recommended for Foreign Language, liberal arts, and International Business majors. 1102-1
1108. Readings in French Literature. (3). Selections from origins to present time. Emphasis on textual analysis. PRE-
REQUISITE: FREN 3301 recommended. $1102-1]$ REQUISITE: FREN 3301 recommended. (1102-1]
1109. French for Practical Affairs. (3). Introduction to French business terminology and forms of correspondence with regular readings of business, commercial and technical publiregular readings of business, commercial and technical publi-
cations. PREREQUISITE: FREN 3301 recommended. [1102-1] 3792. French for Practical Affairs. (3). Continuation of French 3791. PREREQUISITE: FREN 3791 or equivalent. [1102-1]
4301.6301. French Phonetics. (3). Theory and practice of French sounds; especially recommended for teachers of French. PREREQUISITE: three years of college French or permission of instructor. [1102-1]
4305-6305. French Styilistics. (3). Translations of English prose into French; emphasis on style and grammar. Recommended for all French majors. PREREQUISITE: FREN 3302 or permission of instructor. [1102-1]
4306-6306. Appiled French Linguistics. (3). (4501).Current research in linguistics, psycholinguistics and sociolinguistics and their contribution to second language teaching and sec-ond-language learning.
1110. Literature Before 1600. (3). Survey of representative masterpleces of Middle Ages and Renaissance. Readings from Middle Ages include La Chanson de Roland, Yvam, lars of Marie de France, poetry of Villon, and selections from chronqquers Readings from Renaissance include selections from Gargantua et Pantagruel, Essass of Montaigne, Defense et llfus tration
de la langue francaise, and poetry of Marot, Sceve, du Bellay. de la langue francaise. a
and Ronsard. (1102-1]
1111. The Seventeenth 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 Fon taine Mme de Sevigne, LaBruyere, and La Rochefoucauld. (1102-1)

4431-6431. The Nineteenth Century French Novel. (3). French novel from Revolution to twentieth century, treating movements of Romanticism, Realism, and Naturaism as retlected in works of such
4432-6432. The Twentleth Century French Novel. (3). Survey of twentieth-century French novelists including Proust, Gide Mauriac, Malraux, Sartre, Camus, Robbe-Grillet. [1102-1]
4451-6451. The NIneteenth Century French Drama. (3). French Drama from 1800 to 1897, including Hugo, Vigny. Musset, Scribe, Augier, Labiche.
terlinck, and Rostand. (1102-1]
4452-6452. Twentieth Century French Drama. (3). Principal dramatists of present century including Claudel, Giraudoux, Sartre, Camus, Anouihl, Montherlant, Beckett, lonesco, and others. (1102-1)
4471-6471. Nineteenth Century Poetry. (3). French poetry from Lamartine to Mallarme. [1102-1]
4791. Special Studies in French Literature. (3). Topics in rench literature. May be repeated for maximum of 6 hours credit. PREREQUISITE; permission of the chairman and instructor. [1102-1]
LANG 4701001. French for Reading Knowledge. (3). See LANG 4701.
LANG 4702001. French for Reading Knowledge. (3). See LANG 4702.
Graduate courses in French: For course descriptions and urther details of the graduate program, see The Bulletin of The Graduate School.

## E130 GERMAN (GERM)

1101. Eiementary German. (3). Elements of grammar and pronunciation; reading of simple selections. (Sections using audio-visual methods also offered.) [1103-1]
1102. Eiementary German. (3). Reading selections of increasing difficulty. (Sections using audio-visual methods also
offered.) PREREQUISITE: GERM 1101 or equivalent. [1103-1] 2201. Intermediate German. (3). Comprehensive review of German grammar, exercises in writing, and readings in Ger man literature and culture. PREREQUSITE: GERM 1102 or
1103. intermediate German. (3). 2201, More advanced readings. PREREQUISITE: GERM 2201 or equivalent. [1103-1]
1104. Scientific German. (3). A continuation of 2201, with readings in science areas. PREREQUISITE: GERM 2201 or equivalent. [1103-1]
1105. Conversation and Composition. (3). PREREQUISITE: GERM 2202 or equivalent. [1103-1]
1106. Conversation and Composition. (3). PREREQUISITE: GERM 2202 or equivalent. [1103-1]
1107. Introduction to German Literature and Cuiture I. (3). rom beginnings to late eighteenth century. PREREQUISITE: GERM 2202 or equivalent. [1103-1)
1108. introduction to German Literature and Cuiture. il. (3). From late eighteenth century to modern period. PREREQUISITE: GERM 2202 or equivalent. [1103-1]
1109. German Poetry. (3). Survey of lyric and ballad from twelfth to twentieth centuries; readings from Minnesang, Baroque, Enightenment, Sturm und Drang, Classicism Romanticism, Realism, and modern period. PREREQUISITES permission of instructor. (1103-1)
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. [1103-1]
1111. German for Commerce. (3). PREREQUISITE: GERM 3791. [1103-1]
443.6443. Major German Writers of the Twentieth Century (3). Selected works of Hesse, Thomas Mann, Kafka, Frisch from the group GERM $3301,3302,3411,3412$; or permission from the group GERM
of instructor. [1103-1]
4445-6445. The Age of Goethe. (3). Development of German Classicism. Reading of major works of Goethe and Schiller. Selected readings from other important writers of period. PREREQUISITE: two courses from the group GERM 330
$3302,3411,341$ ? $)$ p pern...on of instructor. (1103-1)
4451.6451. The German Drama. (3). Survey of dramatic literature from sixteenth to twentieth centuries; readings from Reformation, Baroque, Enlightenment, Sturm und Drang, Classicism, Romanticism, Reatism, and modern period. PREREQUUSIIES: two courses from the group GERM
$3301,3410,3411,3412$; or permission of instructor (1103-1)
1112. German Narrative Prose. (3). Reading of major prose writings from Romanticism to present. Emphasis on the Novelle PREREQUISITES: one course from the group GERM $3301,3302,3410,3411,3412$; or permission of instructor. [1103-1]
1113. Applied German Linguistics. (3). Application of modern inguistic theories to learning German. PREREQUISITES: two courses from the group GERM 3301, 3410, 3411, 3412, or permission of instructor. (1103-1)
1114. The German Language: Development and Structure. (3). German language in its various stages of development.
PREREQUISITE. GERM 3301 or 3302 i or permission of instructor. (1103-1)
1115. 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 instructor. [1103-1]
LANG 4701002. German for Reading Knowledge. (3). See ANG 4701.
LANG 4702002. German for Reading Knowledge. (3). See LANG 4702.

## E160 ITALIAN (ITAL)

1101. Elementary Itailan. (3). Elements of grammar and pronunciation; reading of simple selections. [1104-1]
1102. Eiementary itailan. (3). Selections of increasing difficul-
ty. PREREQUISITE: ITAL 1 101 or equivalent. [1104-1] ty. PREREQUISITE: ITAL 1101 or equivalent. (1104-1]
1103. Intermediate Itailan. (3). Comprehensive review of Italian grammar, exercises in writing, and reading in Italian literature and culture. PREREQUISITE: ITAL 1102 or equivalent. [1104-1]
1104. Intermediate Italian. (3). More advanced readings. PREREQUISITE: ITAL 2201 or equivalent. [1104-1]
1105. Survey of Itailan Literature. (3). Development of Florentine dialect as literary language of Italy. Representative writers from thirteenth to eighteenth century. Dante. PREREQUISITE: ITAL 2202 or permission of the instructor [1104-1]
1106. Survey of Itailan Literature. (3). Outstanding writers of elghteenth, nineteenth, and twentie th centuries; attention to
Goldoni, Alfieri, Leopardi, Manzoni, Pirandello, and Benedetto Croce. PREREQUISITE: ITAL 3411 or permission of instructor. [1104-1]
1107. The SIxteenth Century. (3). Literature of Italian Renaissance: Ariosto, Machiavelli, Cellini, Sasso, and others.
$(1104-1)$ (1104-1)
1108. Dante. (3). The Vita Nuova and Divina Commedia.

E190 RUSSIAN (RUSS)
1101. Elementary Russlan. (3). Elements of grammar and pronunciation; reading of simple selections. (1106-1]
1102. Eiementary Russian. (3). Selections of increasing difficulty. PREREQUISITE: RUSS 1101 or equivalent. (1106-1) 2201. Intermediate Russian. (3). Comprehensive review of Russian grammar, exercises in writing, and readings in Russian literature and culture. PREREQUISITE: RUSS 1102 or equivalent. (1106-1]
2202. Intermediate Russlan. (3). More advanced readings. PREREQUISITE: RUSS 2201 or equivalent. (1106-1)
3301. Conversation and Composition. (3). PREREQUISITE:
RUSS 2202 . RUSS 2202 or equivalent. [1106-1]
3302. Conversation and Composition. (3). PREREQUISITE: RUSS 3301 or permission of instructor. (1106-1)
3411. Survey of Russlan Literature. (3). From earliest chronicles, folktales, and legends through classical period to end of eighteenth century. [1106-1]
3412. Survey of Russian Literature. (3). From beginning of nineteenth century to Soviet period. Authors include Pushkin, Gogol, Lermontov, Turgenev, Doestoevsky. Tolstoy, and Chekhov. [1106-1]
3441. 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. [1106-1]
3442. Russian Literature of the Nineteenth Century. (3). Readings in representative works of Doestoevsky. Tolstoy, Chekhov, and Gorki. [1106-1]
3443. Russian Llterature of the Twentieth Century. (3). Introduction to works of Bunin, Zamjatin, Bely, A. Toistoy, Scholokhov, and Solzhenitsyn. (1106-1)
3444. 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. [1106-1]
3611. Survey of Russian Civilization. (1). (COLI 3611). Russia and its people; highights of Russian civilization as revealed in the fields of literature, music, painting, and architecture. May not be used for Russian language credit. [1106-1]
4309. The Art of Transiating Russian. (3). Translations of material from Russian to English in approved content area. PREREQUISITE: RUSS 2202 or equivalent. [1106-1)
LANG 4701003. Russlan for Reading Knowiedge. (3). See LANG 4701.
LANG 4702003. Russian for Reading Knowiedge. (3). See
LANG 4702.
E200 SPANISH (SPAN)
1101. Elementary Spanish. (3). Elements of grammar and pronunciation; reading of simple selections. (1105-1)
1102. Eiementary Spanish. (3). PREREQUISITE: SPAN 1101 or the equivalent. [1105-1]
2201. Intermedlate Spanish. (3). Comprehensive review of Spanish grammar, exercises in writing, conversation, and readings in Hispanic literature and culture. PREREQUISITE: SPAN 1102 or equivalent. (1105-1)
2202. intermediate Spanish. (3). More advanced readings. PREREQUISITE: SPAN 2201 or equivalent. (1105-1]
3300. 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 equivalent.
(1105-1] [1105-1]
3410. Spanish Literature and Civilization. (3). Masterpieces
of Spanish Literature coordinated with discussions of civilization and history. PREREQUISITE: SPAN 2202 or equivalent. 3510. Spanish American Literature and Civilization. (3). Masterpleces of Spanish American Literature coordinated With discussions of civilization and history. PREREQUISITE equivalent
3791. Spanish for Commerce. (3). Introduction of Spanish business terminology and forms of correspondence; regular readings of business, commercial and technical publications. PREREQUISITE-SPAN 2202 or equivalent. [1105-1]
3792. Spanish for Commerce. (3). Continuation of Spanish 3791. PREREQUISITE: SPAN 3791. [1105-1]

4301-6301. Spanish Phonology. (3). Priniples of analysis of the sound system of human language: general sound system (phonetics) of Spanish; distinctive features (phonemics) o Spanish; and phonemic contrastive analysis of sound systems of Spanish and English.
4302-6302. Advanced Grammar. (3). Thorough and systematic presentation of Sparush grammar. Recommended for all
Spanish majors. PREREQUISITE: SPAN 3301 and 3302 . [1105-1]
4304-6304. Evolution of Spanish. (3). General history of \$panish language, based on political and cultural history of Spain and Spanish America. History of sound sy stem, grammatical structures, word borrowings, and changes in meaning 4305-6305. Spanish American Dlalectology. (3). Fundamental notations of language variation, regional and social varieties and linguistic demography of general features of Latin American Spanish with respect to phonology, morphosyntax, and semantics.
4306-6306. Applled Spanish LIngulstics. (3). (4501)Current research in linguistics, psycholinguistics and sociolinguistics and their contribution to second-language teaching and sec-ond-language learning.
4420-6420. Medieval Spanish Literature. (3). Reading of Old Spanısh. Medieval spanish literature from Mozarabic lyric through La Celestina.
4421-6421. The Golden Age. (3). Spanish lyric poetry and drama of sixteenth and seventeenth centuries. PREREQUI SITES: SPAN 3411 and 3412, or permission of instructor [1105-1]
4423-6423. Cervantes. (3). Don Quixote and the Novelas ejemplares. [1105-1]
4430-6430. 18th and 19th Century Spanish Literature. (3). Romantic and post-romantic poetry and drama. Cos fumbris$m o$ 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. (1105-1]
4432-6432. Contemporary Spanish Poetry and Drama. (3). Spanish poetry and drama from Generation of 1898 to present. PREREQUSIITES: SPAN 3411 and 3412 , or permission of instructor. (1105-1)
4532-6532. Spanish American Drama. (3). Development of the drama in Spanish America; emphasis on twentieth centu-
ry. PREREQUISITES: SPAN $3411-3412$ or one of SPAN 3511 . 3512. [1105-1]

4561-6561. Spanish American Prose Fiction I. (3). Development of novel and short story in Spanish America from beginnings through Mexican Revolution. PRERRQUUSITE
SPAN 3511. [1105-1]
4562-6562. Spanish American Prose Fiction II. (3). Spanish American novel and short story from Mexican Revolution to present. PREREQUISITE: SPAN 3512 . [1105-1]
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. [1105-1]
LANG 4701004. Spanish for Reading Knowledge. (3). See LANG 4701.
LANG 4702004. Spanish for Reading Knowledge. (3). See LANG 4702.
Graduate courses in Spanish: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.

## GEOGRAPHY

## PROFESSOR W. THEODORE MEALOR, Chairman <br> Room 115, Johnson Hall

The prerequ/a/te 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 Sclence: Weather and Climate. (4). Earth-sun and earth-moon relations, oceans and their (4). Earth-sun and earth-moin relations, oceans and their
movements, weather, and climate. Three lecture, two laboramovements, weather, and clim
tory hours per week. [1917-1]
1102. Introduction to Earth Sclence: Landforms. (4). Maps as basic tool in understanding earth phenomena, landforms, and aspects of local physical geography. Three lecture, two laboratory hours per week. [1917-1]
1401. Introductlon to Human Geography. (3). Geographical aspects of human behavior. Focuses on distributional pat aspects of human behavior. Focuses oral distribctional patterns and interactions of such cultural characteris
language, religion, politics, and economics. [2206-1]
2301. Survey of Developing Worid Regions. (3). Introduction to essential elements of geographical analysis to establish framework for understanding complexities of contemporary world. Survey of those regions of world generally referred to as "developing" encompasses most of Africa, Asia, and Latin America. [2206-1]
2311. Survey of Industrialized World Reglons. (3). Emphasis on more highly "developed"' areas, including Europe. North America, and Soviet Union. [2206-1]
3200. Peoples and Cultures of the World (Same as ANTH 3200). (3). Major ethnographic areas and selected cultures of world. (2202-1]
3221. Principles of Conservation. (3). (3411). Current problems and responsibilities relating to conservation of soil minerals, forests, water, wild life, and natural beauty of earth (2206-1)
3430. Economic Geography. (3). (3201, 3211). Spatial characteristics and distribution of economic activities. [2206-1]
3451. Geographic Elements in Urban and Reglonal Planning. (3). Introduction to regional and urban planning, emphasizing spatial relationships of physical, economic, and cultural phe nomena necessary in planning process. [0206-1]
3501. 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. (2206-1)
3502. Map Projections: Analysls and 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 particu
lar distribution on map. [2206-1] lar distribution on map. [2206-1]
4111-6111. Earth Sclence I. The 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. [1917-1]
4121-6121. Earth Sclence II. The Earth. (3). Land forms, their changes, and their uses to man. (1917-1]
4122-6122. Earth Sclence III. The Soll. (3). Analytical study of soils to include their physical, chemical, and biological quali ties, and their classes, uses, and measures of conservation [1917-1]
4131-6131. Earth Sclence IV. The Oceans. (3). Analytical study of the oceans to include their physical, chemical, and biological qualities; their movements, resources, climatic influences, and importance for transportation. [19i7-1]
4201-6201. Urbanization and Environment. (3). Ways man has changed natural environment by urbanization and how physical features and processes influence development and function of cities. [2206-1]
4203-6203. Site Analysis. (3). Analysis of site characteristics and suitability for land development. Emphasis on environmental problems and human use as they relate to site selec tion and development.
4211-6211. Climatology. (3). Systematic/regional study of climate. Emphasis on controlling factors in climate, problems in the classification of climatic types, world distributional patterns, and methods of handling climatic data. [2206-1] 4231-6231. Water Resources. (3). Hydrologic processes and their application to needs of cities, industry, agriculture, and recreation. [2206-1]
4251-6251. Environmental Threats to Human Survival. (3). Survey of environmental threats, some of which may threaten survival of human species. Spectrum of threats ranges from planet-wide clumatic changes and potential changes in earthsun relationships to more immediate threats such as inadequate food prod
nation. [2206-1]
4304-6304. Geography of Europe (3). Geographic analysis of lands west of Iron Curtain. [2206-1]
4305-6305. Geography of the USSR. (3). Regional analysis of Soviet Union and its satellites. (2206-1)
4306-6306. Geography of Asla. (3). Significance of regional differences in Japan. Chuna, and India, and brief survey of remaining areas. [2206-1]
4313-6313. Geography of the United States and Canada. (3). (3313). Physical, cultural, and eco

United States and Canada. [2206-1]
4316-6316. Geography of the South. (3). Selected regions in
South; emphasis on changes and trends in cultural-physical South; emphasis on changes and trends in cultural-physical complex. [2206-1]
4324-6324. Geography of Middile America. (3). Regions and resources of Mexico. Central America, and West Indies related to present and potential economic development. Students who have received credit for GEOG 3314 or 4314 will not be allowed credit for GEOOG 4324. [2206-1]
4325-6325. Geography of South Amerlca. (3). Regional economies, resources, and trade in the continent; with stress on changing significance of landscape related to national and international problems. Students who have received credit for GEOG 331
4421-6421. Polltical Geography. (3). Introduction to spatial distribution, characteristics, and interaction of political processes and systems. Individual student study of selected problems required. [2206-1]
4431-6431. Urban Geography. (3). Allocation of land for urban uses; adjustments and adaptations to existing physical phe nomena; patterns, functions, and forms of specific urban land areas; and some continuous problems of urban development and growth. [2206-1]
4434-6434. Land Utillzation and Settlement. (3). Characteris tic ways that man utilizes land. Emphasss on effect of urban growth on settlements and landholding patterns in rural areas [2206-1]
4442-6442. Geography of Business and Industrial Location. (3). Geography of retailing, wholesaling, and manufacturing emphasis on locational analysis of selected business enter prises. [2206-1]
4443-6443. Transportation Geography. (3). Various transportation modes and networks and impact they have on land use and contemporary development problems. [2206-1]
4453-6453. Geography of Food and Agriculture. (3). Ability of earth-surface areas to produce food necessary to sustann rapidly growing world population. Includes environmental constraints which tend to limit food production and produce food supply crises. [2206-1]
4501-6501. Map Design. (3). Introduction to cartographic theory, planning and construction of maps. [1999-1]

4502-6502. Computer Mapping. (3). Use of computer mapping programs as effective techniques for visual presentation of wide variety of data. [1999-1]
4503-6503. Map Production. (3). Scribing, color separation, printing, and darkroom processes. [1999-1]
4510-6510. Aerial Photo Interpretation. (3). Elements and steps involved in interpreting, measuring, and mapping of images appearing on aerial photographs. [2206-1]
4511-6511. Remote Sensing of the Environment. (3). Survey of theory and application of using color, infrared, thermal, and radar images generated from aircraft and satellites for geo graphic, environmental, and planning purposes. [2206-1] 4521-6521. Quantitative Methods. (3). Introduction to quantitative methods in geographic analysis. (0701-1)
4531-6531. Urban Fleld Methods. (3). Geographic field techniquesin reconnaissance and analysis of urban areas. One and one-haff lecture, three laboratory hours per week. [2206-1] 4621. Special Problems. (1-3). Student, under facuity supervision, studies in-depth particular geographic topic. Repeatable with change in content to maximum of 3 semester hours (2206-8)
4700-6700. Geography Internshlp. (1-9). Experience working
with agency in which geographic knowledge can be utilized.
Repeatable to maximum of 9 semester hours. Repeatable to maximum of 9 semester hours. [2206-5]
Graduate courses in Geography: For course descriptions and further detalls of the graduate program, see The Bulletin of The Graduate School.

## HISTORY

PROFESSOR AARON M. BOOM, 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. The Development of World CIvilization I. (3). Especially recommended for freshmen. Traces forms of civilization from ancient beginnings through seventeenth century. [2205-1] 1302. The Development of World CIvillzation II. (3). Especially recommended for freshmen. Traces forms of civilization from beginning of the eighteenth century to present. [2205-1]
1302. The United States to 1877. (3). United States from 2601. The United States to 1877. (3). United Stater 2602. The United States sInce 1877. (3). United States from 1877 to present. [2205-1]
1303. Special issues in History. (3). May be repeated for a
maximum of nine hours when the topic varies. [2205-1]
1304. History of the Christlan Church. (3). From its New Testament origins to 20th century. [2205-1]
1305. History of Technology. (3). Technological development and its relationship to its historical context from earliest times to present. [2205-1]
1306. England Before 1714. (3). Political, constitutional, cultural, social, and economic development of England from coming of Anglo-Saxons until Hanoverian accession in 1714 [2205-1]
1307. England Since 1714. (3). Development of England's democratic government, considering economic, social, intellectual, diplomatic, and imperial affairs. [2205-1]
1308. Colonlal LatIn America. (3). Political, economic, social and cultural development in Latin America from pre-conquest era to 1808. [2205-1]
1309. The Latin American Natlons. (3). Major political, eco nomic, and social trends in Latin America since 1808. Empha sis on Argentina, Brazil, Chile, and Mexico. [2205-1]
1310. The Middle East. (3). Political, diplomatic, social and religious developments in Middle East from 1800 to present [2205-1]
1311. Traditional Asia. (3). Comparative survey of civilizations in India, China, Japan, and Southeast Asia, from their tions in India, China, Japan, and Southeast Asia
beginnings through the 18 th century. (2205-1)
1312. Modern Asla. (3). Asia from 1800 to present, focusing on Asıan reactions to colonialism, and rise of modern nation states in India, Japan, China, and Southeast Asia. [2205-1]
1313. Early Modern Europe, 1500-1800. (3). [2205-1]
1314. Modern Europe, 1800 to Present. (3). [2205-1]
1315. Cultural and Intellectual History of Europe I. (3).
(4505). Topics in history of European culture and thought (4505). Topics in history of European culture and thought
from classical Greece through high Middle Ages. [2205-1] 3506. Cultural and Intellectual History of Europe II. (3). (4506). Topics in history of European culture and
from late Middle Ages to twentieth century. [2205-1]
1316. American Diplomatic History. (3). Though including the 18 th and 19th centuries, course concentrates on 20th Emphasizes relationship between foreign policy and domestic forces. Note: Students who have received credit for HIST 3801 or 3802 will not be allowed credit for HIST 3803. [2205-1]
1317. Economic History of the United States. (3). Note: not be allowed credit for HIST 3823. [2205-1]
1318. United States Constitutional History. (3). Constitution al 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 governmen in United States. [2205-1]
1319. Soclal and Intellectual History of the United States. (3). 3862 will not be allowed credit for HIST 3863 [ 2205-1]
1320. History of Tennessee. (3). Political, economic, and social dev
$[2205-1]$
1321. The Old South. (3). Southern institutions prior to outbreak of Civil War. [2205-1]
1322. The New South. (3). South from Civil War to present.
$[2205.1]$ [2205-1]
1323. The West. (3). Significance of frontier in development of
United States from Revolutionary period to 1890. [2205-1] 4003. The Phllosophy 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 about nature of history in its two senses - history
and history as thought about actuality. [2205-1]
4010-6010. Toplcs In History. (3). Intensive study of selected topics in history. Topics announced in Schedule of Classes. [2205-1)
1324. Directed Readings, Honors. (3). Under the direction of faculty member, student reads about particular topic or topics. PR
[2205-8]
1325. Directed Readings. (3). Readings on particular topic in
history under supervision of member of faculty. [2205-8] history under supervision of member of faculty. [2205-8]
4020-6020. Internship in History. (3-12). Supervised intern-4020-6020. Internship in History. (3-12). Supervised intern-
ships working with various governmental agencies, private ships working with various governmental agenias. May be
foundations or business of interest to historias. Mas
repeated for up to 12 hours credit. Prerequisite: permission of repeated for up to 12 hh
department. [2205-8]
1326. Seminar in Historical Research. (3). Research techniques and methods by focusing on particular topics. [2205-1] 4126-6126. Victorlan and Edwardian England. (3). Social, political, and cultural adjustments of England to experience.
industrialization in 19th and early 20th centuries. [2205-1]
4145-6145. History of Modern Germany. (3). Germany from origiss of unification movement in Napoleonic Era through
Second World War Second World War. [2205-1]
4160-6160. Russla to 1917. (3). Russia from earliest times to 1917; emphasis on the rise of serfdom and autocracy and 1917, emphasis on the rise of serdd.m and a
evolution of revolutionary movement. [2205-1]
4162-6162. History of the Sovilot Unlon. (3). Detailed study of
1917 Revolution and major developments in povernment, 1917 Revolution and major developments in government,
economy. cultural and social life, and international affairs economy, cultural and sc
which followed. [2205-1]
4163.6163. History of Soclalism and Marxism. (3). Socialist and Marxist thought and rise of socialist and Marxist social and and Marxist thought and rise of socialistand Movements in Europe. Russia and Far East. Unique political movements in Europe. Russia and
social, economic, and political conditions which East. Uniqe rise to social, economic, and political conditions which gave rise to
experimentation with and application of Marxism. [2205-1] 4200-6200. History of Spain. (3). (3200). Spanish institutions,
culture and politics from ancient times to present. [2205-1], culture and politics from ancient times to present. [2205-1]
$\mathbf{4 2 4 0 - 6 2 4 0}$. History of Mexico. (3). Political, economic, social, 4240.6240. History of Mexico. (3). Political, economic, social,
and cultural development of Mexico from ancient times to present. [2205-1]
4250-6250. History of Brazill. (3). Political, economic, social, and cultural development of Brazil from early times to the present [2205-1]
4260-6260. The World Since 1945. (3). Global ideological economic and political developments since World War II. Emphasizes rising affluence of industrial free market, move-
ment of former colonies to independence, and growth in ment of former colonies to independence
diversity among Soviet bloc nations. [2205-1]
4281-6281. Africa South of the Sahara. (3). Emphasis on black Africa in mineteenth and twentieth centuries. Age of imperialism and impact of West on Africa, colonial policies of
European powers; rise of nationalist movements; problems of European powers; rise of nationalist movements; problems of
newly independent nations; role of African countries in world newly independe
aftarrs. [2205-1]
4282-6282. The History of North Africa. (3). Emphasis on nineteenth and twentreth centuries. Extension of European influence and control; rise of nationalist movements; role of
these areas in world affairs. [2205-1]
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 Com-
mission territories. [2205-1] mission territories. [2205-1]

### 4292.6292. Hi (3). $2205-I$ ]

4294-6294. History of Modern Japan, 1800 to the Present. (3). [2205-1]

4295-6295. Intellectual History of East Asla Since 1800. (3). Evolution of modern Chinese and Japanese thought. [2205-i] 4321.6321. History of Anclent Clvilization I. (3). Ancient Near East and Greece through time of Alexander the Great
[2205-1]
4322.6322. History of Anclent CIvilization II. (3). Hellenistic World and rise and fall of Roman Empire. [2205-1]
4361.6361. History of the Byzantine Empire. (3). Byzantine or East Roman Empire from 330 to 1453 and its influence on Slavic, Turkic, and islamic peoples. [2205-1]
4371-6371. Early Middle Ages. (3). Late Roman Empire, migration period, emergence of Islarmic, Byzantine, and West
European cultures through period of Investiture Controversy. European
4372-6372. The High Middle Ages. (3). Urban emergence, growth of feudal monarchy. foundations of modern political institutions, medieval universities, and intellectual fabric of scholasticism. [2205-1]
4380-6380. Renalssance Europe, 1300-1520. (3). Transition from medieval to early modern institutions in Europe; emphasis on urban growth, capitalism, emergent nationalism, inter-
national diplomacy, and humanism. [2205-1]

4390-6390. Europe In the Age of the Reformation. (3).
Characteristic political, social, economic, intellectual, and cultural developments and religious conflicts of late fifteenth and sixteenth centuries. [2205-1]
4401-6401. Europe In the Age of the Baroque. (3). Political crises, development of monarchial absolutism, rise of modern science, and cultural synthesis in seventeenth century
[2205-1]
4440-6440. The Era of the French Revolution. (3). The Old Regime, origins and development of Enlightenment thought, and revolutionary and counter
18 th century Europe. [2205-1]
4453-6453. Europe, 1815-1914. (3). Note: Students who have received credit for HIST 4451 or 4452 will not be allowed creant for hist 4453. [2205-1)
4461-6461. Europe, 1914-1945. (3). [2205-1]
4503-6503. Disease and MedicIne In History. (3). How various diseases and the medical attempts to conquer them influenced economıc, 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. (2205-1)
4620-6620. Colonlal America, to 1783. (3). Political development and economic, social and cultural Institutions of English Colonies in America, including origins and conduct of American Revolution. [2205-1]
4630-6630. The New Natlon, 1783-1815. (3). (4641). NOTE: Students who have recerved credit for HIST 4641 will not be allowed credit for HIST 4630. [2205-1]
$4640-6640$. Jacksonlan America, 1815-1850. (3). (4642). NOTE: Students who have received credit for HIST 4641 will not be allowed credit for HIST 4640. [2205-1]
4670-6670. Clvil War and Reconstruction, 1850-1877. (3).
(4460). NOTE-Stua (4460). NOTE: Students who have received credit for
4660 will not be allowed credit for HIST 4670 .
(2205-1)

4680-6680. Emergence of Modern America, 1877-1914. (3). United States from end of Reconstruction to outbreak of World War I. [2205-1]
4701-6701. The United States, 1914 to the Second World War. (3). United States from outbreak of World War I to World 2205-1]
4702.6702. United States from the Second World War. (3).
The United States from World War II to present (2205-1] The United States from World War II to present. [2205-1] 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, difficulttes accompanying modernization and assumption of global responsibilities, and problem of relationship between civilian and military-naval sectors in
democracy. 4823-6823. American Labor History. (3). Historical develop-
ment of labor movement in United States: emphasis on social, ment of labor movement in United States; emphasis on social, economic
4824.6824. Business History. (3). Historical development of business in the United States; attention to social, economic, and political trends related to American business communities. [2205-1]
4851-6851. History of Women In America. (3). Economic, political, social, and intellectual history of women in English
American colonies and United States (2205-1] American colonies and United States. [2205-1)
4871-6871. United States Urban History. (3). (3871). Devel-
opment of American cites, including formation of local social, economic, and political institutions, and impact of urbanization on United States. [2205-1]
4881-6881. Black American History. (3). Role of blacks in America from Jamestown to present. (2205-1)
4941-6941. History of the American Indian. (3). Role of Indian in American history. [2205-1]
4996. Honors Thesils. (3). Under the direction of faculty member, and with approval of the Honors Committee, student writes thesis based on research in primary and/or
secondary sources. PREREQUISITE: admission to the Honors secondary sources
Program.
[2205-8]
Graduate Courses in History: For course descriptions and further detals of the graduate program, see The Bulletin of The Graduate School.

## MATHEMATICAL SCIENCES

PROFESSOR STANLEY FRANKLIN, Chairman
Room 373, Dunn Mathematics
Foreign Languages Bulding
The Department of Mathematical Sciences offers general courses in mathematics, statistics and computer science for students 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 Courses which satisfy specific graduation requirements of the
several colleges may be found in the description of the degree several colleges may be found in the description of the degree requirements for the specific college.
The courses MATH 1000, 1100, 1211, and 1212 provide preparatory instruction, as needed, for required courses. bra as preparation for MATH 1100; and MATH 1100 . Intermebra as preparation for MATH 1100; and MATH 1100, Interme-
diate Algebra, prepares the student for either MATH 1203 or
MATH 1211 . MATH 1211 provides preparation for MATH 1212, and MATH 1212 provides preparation for MATH 1321 .
A placement test is recommended for students who plan to register in any of the courses MATH 1203, 1211, 1212, or 1321. Registered students taking the placement examination
may take it for credit by makıng written application to the chairman of the department and paying the appropriate fees for such credits to be recorded, prior to the exam.
Students may earn credit by examination in any mathematics course after obtaining permission of the department chairman and paying the appropriate fees. A form for this purpose is available in the office of the department chairman. 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.

## E 280 MATHEMATICS (MATH)

1000. Basic Mathematics. (3). Signed numbers; order of operations; variables, first degree equations; products and factors of polynomials; basic operations on algebraic fractions, ratio and proportion; first degree equations in two satisfies no mathematics requirement for any degree. It is stfered solely as preparation for MATH 1100. NOTE: No more than three hours credit in MATH 1000 and 1100 may be applied toward any degree program. [1701-1]
1001. Intermedlate Algebra. (3). Set notation, first degree inequalities, absolute value equations and inequalities; operations on polynomials, operations on rational expressions; integral, fractional and negative exponents; operations involving radical expressions; complex numbers; quadratic equa-
tions; systems of linear equations; determinants. RESTRICtions; systems of linear equations; determinants. RESTRIC-
TIONS: This course satisfies no mathematics requirement for any degree. It is offered solely as preparation for College Algebra (either MATH 1203 or MATH 1211). NOTE: No more than three hours credit in MATH 1000 and 1100 may be applied toward any degree program. [1701-1]
1002. Concepts of Number. (3). Introduction to logic; elements of set theory; systems of numeration; the real number system; algorithms; number sentences. [1701-1]
1003. Concepts of Algebra. (3). Relations and functions; equations; exponents; polynomials; applications. PREREQUI-
SITE: MATH 1181. [1701-1] SITE: MATH 1181. [1701-1]
1004. Nuclear Reactor Mathematics. (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. (1701-1)
1005. College Algebra With Business Applications. (3). Basic algebratc techniques; applications to economic and business problems. Development of conceptual understanding and practical application of linear equations, inequalities, vectors, and matrices. Uses of algebra and finite mathematics in economics, finance, marketing and production. NOTE: Only one of the courses MATH
satisfy degree requirements. PREREQUISITE: Placement test satisfy degree requirements. PREREQUISITE: Placement test
rec- ommended, but not required, MATH 1100 or its equiva-rec- ommended
lent. (1701-1]
1006. College Algebra. (3). Inequalities; quadratic equations; relations and functions; absolute value: exponential and logarithmic functions; systems of equations and inequalities; matrices: complex numbers; roots of polynomials; sequences and series; binomial expansion. NOTE: Only one of the courses MATH 1203 or MATH 1211 can be used to satisfy degree requirements. PREREQUISITE: Placement test recommended but not required; MATH 1100 or its equivalent. 1)
1007. 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 recomcomplex numbers. PREREQUISITE: placement test recom
mended but not required; MATH 1203 or 1211 . [1701-1]
1008. College Algebra and Trigonometry. (3). Exponents; radicals, quadratic functions; inequalities; relations and functions: inverse, exponential and logarithmic functions; solution of atgebraic systems; trigonometric functions, identities, equations and graphs; angle measurements; sum, difference,
half-angle and double-angle formulas; solution of traangles; half-angle and double-angle formulas; solution of triangles;
1009. Elementary Calculus. (3). Introduction to concepts and methods of elementary calculus of one real variable as related to rational, exponential, and logarithmic functions; nature of derivatives; differentiation; application of derivative, nature of integration; definite integral; applications of definite integral. NOTE: Only one of the courses MATH 1312 or 1321 may be
used to satisfy degree requirements. PREREQUISITES: MATH used to satisty degree requirem
1182,1203 or 1211 . (1701-1]
1010. Analytic Geometry and Calculus. (4). Essentrals of analytic geometry of the plane with vectors; nature of derivaapplications of derivatives: basic concepts of integration and definite integral with applications. (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 recerve credit for both MATH 1321
and 1401 . PREREQUISITE OR COREQUISITE: MATH 1212, 1213 or equivalent. (1701-1]
1011. Honors Calculus 1. (4). Concepts and applications of differential and integral calculus presented from theoretical MATH 1401 and 1321. PREREQUISITE: Permission of Honors MAIH 1401 and 1321.
Committee. [1701-1]
1012. Honors Calculus II. (4). NOTE Students may not receive credit for both MATH 1402 and 2321 . PREREQUISITE. Permission of Honors Commuttee. [1701-1]
1013. Selected Topics In Mathematics. (1-5). Prescribed subject matter in mathematics not specifically covered elsesubect in curriculum. Repeatable by permission of department where in curriculum. Repeatable by permission of department 2291. Mathematics of Finance. (3). Compound interest and annuities with applications; introduction to mathematics of
iffe insurance. PREREQUISITE: MATH 1203 or 1211 . [1701 if
1014. Analytic Geometry and Calculus. (4). Differentration, integration and analy tical aspects of elementary transcendental functions; techniques of integration; limits and continuity;
applications of definite integral; polar coordinates. NOTE: Students may not receive credit for both MATH 2321 and 1402. PREREQUISITE MATH 1321. [1701-1]
1015. Analytic Geometry and Calculus. (4). Indeterminate forms: improper integrats: vectors and analytic geometry in 3-space; partial differentiation; multiple integrals; infinite
series. PREREQUISITE: MATH 2321 (1701-1] series PREREQUISITE: MATH 2321. (1701-1)
1016. Honors Mathematics i.i. (4). Introductory point set topology, elements of abstract algebra. PREREQUISITES:
MATH 1402 and permission of Honors Committee. (1701-1)
1017. Honors Mathematics IV. (4). Topics in abstract algebra and real analysis. PREREQUISITES: MATH 2401 and permission of Honors Committee. [1701-1]
1018. Concepts of Geometry. (3). Introduction to idea of proof in postulational system; development of geometric relationships independent of number, including congruent triangles, similar triangles, parallelograms, and circles; applications of number in geometry including coordinate geometry, lengths,
areas, and volumes. PREREQUISITE: MATH 1182./1701-1).
1019. Discrete Structures. (3). Elementary logic; sets, relations, functions, orderings, equivalence relations, partitions; finite sets, module arithmetic; natural numbers, mathemati-
cal induction, arithmetic; strings, string programs, structured cal induction, arithmetic; strings, string programs, structured connectedness, traversals. graph algorithms.
1020. Matrix Theory. (3). Matrix algebra; elementary operations; equivalence; determinants; sumilarity, polynomial matrices: matrix analysis; applications. PREREQUISITE:
MATH 1312 or 1321 (1701-1]
1021. Differentlal Equations. (3). Ordinary differential equations including series solutions. PREREQUISITE: MATH 2322 [1703-1]
4151-6151. History of Mathematics. (3). Development of mathematics from earliest times to present: problem studies.
parallel reading and class reports. PREREQUISITE: MATH parallel reading and class res
2321 or equivalent. [1701-1]
4171-6171. Special Problems in Mathematics. (1-3). Directed individual study in selected area of mathematics chosen in consultation with instructor. Repeatable by permission of
chairman. PREREQUISITE: permission of instructor [1701-8]
4241-6241. Linear Algebra. (3). Systems of linear equations; matrices and elementary row operations; vector spaces and subspaces; inner product spaces; linear transformations: lin-
ear functionals; annihilators; polynomials. PREREQUISITE: MATH 2321 or permission of instructor. (1701-1]
4261-6261. Abstract Algebra. (3). Groups; homomorphisms; rings, integral domans, polynomials, fields. PREREQUISITE: MATH 4241 or permission of instructor [1701-1]
4350-6350. Advanced Caiculus. (3). (3111). Real number system, functions and sequences, limits, continuity, differentiation; Riemann-Stieltjes integration, series of functions. PREREQUISITE: MATH 2322. [1701-1]
4351-6351. Advanced Calculus. (3). Integration theory; Riemann and Lebesgue integrals; partial differentiation:
implicit function theorem. PREREQUISITE: MATH 4350 or implicit function theorem. PREREQUISITE: MATH 4350 or permission of instructor. (1701-1)
4361-6361. Complex Varlables. (3). Complex numbers; analytic functions; Cauchy-Riemann conditions: Taylor and Laur-
ent series integration. PREREQUISITE: MATH 2322. [17a1-1] 4391-6391. Applied Mathematics. (3). Laplace transforms; Fourier series; introduction to partial differential equations. PREREQUISITE: MATH 3391. [1703-1]
4392-6392. Applled Mathematics. (3). Partial differential
equations. PREREQUISITE: MATH 4391. (1703-1)
1022. Senlor Honors Seminar. (3). In-depth study of one or more topics in mathematical sciences; emphasis 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 persenior Honors students in math
mission of instructor. (1701-8]
4411-6411. Topology. (3). Introductory set theory; metric spaces; topological spaces; continuous functions; separation axioms; separablity and countability axioms; connectedness
and compactness. PREREOUISITE: MATH 4350 or 4241 or and compactness. PREREQUISITE: MATH 4350 or 4241 or permission of instructor ( $1701-1$ )
4713-6713. Numerical Computer Methods. (3). Methods of numerical computation; interpolations; numerical differentiation and integration; solution of algebraic and transcendental equations; inversion of larger matrices, determination of proper vectors and proper values; solution of differential and integral equations; estimation of error and error control.
PREREQUISITE: MATH 4710 or equivalent. [0701-1) PREREQUISITE: MATH 4710 or equivalent. [0701-1]
4721-6721. Numerical Analysis 1. (3). Derivation and application of computer-oriented, numerical methods for functional approximation, differentiation, quadrature, and solution of
ordinary differential equations. PREREQUISITE: MATH 2321 ordinary differ ential equations. PREREQUISITE: MATH 2321
and 4710 or equivalents. [1703-1)
4722-6722. Numerical Analysis il. (3). Numerical methods for solving applied problems from calculus and differential equations. PREREQUISITES: MATH 2321 and 4710 or equivalents. (1703-1)
4741-6741. LInear Programming Methods. (3). Theory of linear programming methods, problem formulation; convex sets; sImplex and revised simplex methods: matrix games and
linear programming. PREREQUISITES: MATH 3241 and 4710 or equivalents. [1703-1]

## E 285 COMPUTER SCIENCE (COMP)

1000. Computer Programming 1. (3). Principles of computer programming style, expression, and documentation: design
speafications, algorithmic problem solving, stepwise refinespecfications, algorithmic problem solving, stepwise refine-
ment, storage variables and structures, assignments, primiment, storage variables and structures, assignments, primiming language: data typing, standard procedures and
functions, subprograms and parameters, control structures.
and 1/O. Note: Non-computer majors should elect COMP 4001. COREQUISITE: MATH 1321
1001. Computar Programming II. (3). Further principles of computer programming style. expression, and documentation: design of algorithms, analysis of algorithms, and coding in a high-level language; program structures, correctness,
verification, testing, modification, maintenance, and docuverification, testing, modirication, maintenance, and
mentation. PREREQUSITES: COMP 1C00, MATH 2701.
1002. Assembly Language Programming. (3). (MATH 4711). Computer machine language. opcodes, addressing modes. arithmetic and logic, program control, interrupts; symbolic coding and assembly systems. labels, mnemonics, expressions, assembler directives, assembly process; program design, coding, testing, tracing, and debugging, advanced assembler features: partial assembly, program segmentation,
loading, and linking, macro instructions. PREREQUISITE. loading, and
COMP 3420 .
1003. Computer Organization. (3). Binary 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 communicatıon codes, parity, encoders,
decoders, and code conversion. PREREQUISITE: COMP 1000. 4001-6001. Computer Programming. (3). (MATH 4710). Algorithmic problem solving, formalization of algorithms, stapwiages: constants, variables, data types, arithmetic expressions, assignment statements, 10 gical expressions, branching, iteration, subprograms and parameters, 1/0,
string manipulation, programming style. NOTE: Computer string manipulation, programming style. NOTE: Computer
Science majors may not use COMP 4001 to fulfill degree Science majors may not use COMP 4001 to fulfill degree
requirements. PREREQUISITE: MATH 1203 or 1211 or equivarequir
lent.
4002-6002. Accelerated Computer Programming. (3). Principles of computer programming style, expression, and documentatioon: design specifications, algorithmic problem-
solving, stepwise refinement, storage variables and structures, assignments, primitive operations, and branching, coding in a high-level programming language: data typing, stanparameters, control structures, and I/O, program structures, correctness, verification, testing, modification, maintenance. NOTE: Computer Science majors may not use COMP 4002 to fulfill degree requirements. Credit for either COMP 1000 or
COMP 2010 precludes credit for COMP 4002 PREREQUISITE MATH 1321.
4003-6003. Computer Organization and Assembly Language Programming (3). Binary signals, combinatorial and sequential logic networks; computer structure, memory, control, processing, and I/O units: instruuction types and execution. Computer machine language symbolic coding and assembiy
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 . PREREQUISITE. COMP 3420 p
COMP 4002 .
4040-6040. Programming Languages. (3). (MATH 4769) Comparative features, syntax, and applicability of high-level programming languages suuch as BASIC. FORTRAN. COBAL, structures and dataflow, procedures, recursion, runtime envistructures and dataflow, procedures, recursion, runtime environment, string manipulation, list processing, array process-
ing, documentation, programming style. PREREQUISITE: OMP 2010.
4041-6041. Introduction to Compllers. (3). Finite state recognizers. lexical scanners, symbol tables, context-free languages and pushdown automata, context-free parsing methods such as recursive descent, $L L(K)$, precedence, $L R(K)$,
SLR $K)$ : language translation, generation and improvement of SLR(K); language translation, generation and improvement of
machine independent codes, inherted and synthesized attributes, syntax-directed translation schema. PREREQUISITES. COMP 4040, 4150.
4081-6081. Software Development. (3-6). Program design methodologies: formal methods, dataflow diagrams, strength and coupling measures; programmer teams, organization. and management, scheduling and estumating, walk-throughs, program libraries and documentation; organization, manage-
ment and development of a large-scale software project. May ment and development of a large-scale software project. May
be repeated for a maximum of 6 hours. PREREQUISITES: COMP 4040, 4150 .
4150-6150. Information Structures. (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 structure niques; dynamic storage allocation; coding of datas.
algorithms. PREREQUISITES: COMP 2010, 3230 .
4160-6160. File Processing. (3). Concepts of record, file, paging, blockıng, compaction, database, sequential bulk storage devices, external sort/merge algorithms, algorithms for updating sequential files, linked lists, file-oriented tree structures, traversing and batancing trees, network concepts, random access bulk storage devices, algorithms and storage
of inverted files, multilists, indexed sequential, and hierarchıcal structures, file I/O. PREREQUISITE: COMP 4150 .
4242-6242. introduction to Computer Graphics. (3). Characteristics of graphics 1/O devices: 20 pictures, scaling, translation, rotation, and windowing; drawing histograms, simple maps, block diagrams, and flowcharts; curved lines, precision, quantization, and interpolation, plotting equations; 30 pictures, scaling, translation, rotation, and projections hidden line problem, non-Euclidean
UISITES: COMP 2010, 3230 .
4270-6270. Introduction to Operating Systems. (3). Hierarchy of storage devices, 1/O buffering, interrupts, channels; multiprogramming, processor and job scheduling, memory management of asynchronous processes: interrupt proce-
dure calls, process stateword and automatic switch instructions, semaphores, concurrency; security and recovery pro-
cedures. PREREQUISITES: COMP 4040, 4150 .
4601-6601. Introduction to Automata, (3). Formal languages, finite automata and regular expressions, regular set theory, Inuly Chomshy and Greibach normal forms pushdown guity, Chomsky and Greiback normal forms, pushdown tary recursive function theory; the Chomsky hierarchy of tary recursive function theory; the Cho
languages. PREREQUISITE: COMP 2010.
4715-6715. Artificlal intelligence. (3). (MATH 4715) Selforganızing systems, information theory, ratıonal 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 Sclence. (1-3). (MATH 4791) Directed individual study of selected areas of computer science. May be repeated by permussion for a maximum of 6 hours. PREREQUISITE: permission of instructor.

## STATISTICS (MATH)

2611. Elementary Statistics. (3). Basic statistical concepts; elementary probability theory; normal curve and applications; PREar, multiple, and partial correlation; statistical inference.
PREREQUITE. MATH. 100 or equivalent. 1 . 702 -
4611-6611. Statistical Methods 1. (3). Binomial, hypergeometric, Poisson, multinomial and normal distributions, test of hypotheses, chi-square test, $t$-test, F-test, etc, ; non paramet-
ric tests; correlation analysis. PREREQUISITE: 6 hours in ric tests; correlation analysis. PREREQUISITE: 6 hours
mathematics at level of MATH 1211 or above. (1702-1)
4612.6612. Statistical Methods II. (3). Introduction to analy-
Sis of variance, regression and analysis of covariance. PRESIs of varlance, regression and analy
REQUISITE: MATH 4611 . [1702-1]
4613-6613. Introductory Statistical Theory. (3). Distributions of functions of random variables; limiting distributions; correlation and regression; Neyman-Parson Lemma; likelihood
ratio tests, sufficient statistics; point estimations. PREREQUIratio tests, sufficient statistic
SITE: MATH 2321. [1702-1]
4631-6631. Probablilty. (3). Basıc concepts in probability; probability models; applications. PREREQUISITES: 6 hours in mathematics at level of MATH 1211 or above. [1702-1]
4671-6671. Toplcs In Statistics. (1-3). Recent developments in statistical methods and applications. PREREQUISITE: permission of instructor. [1702-1]
Graduate courses in Mathematics: For course descriptions and further detals of the graduate program, see The Bulletm of The Graduate School

## PHILOSOPHY

## ASSOCIATE PROFESSOR NORMAN C. GILLESPIE, Chairman

Room 321, Clement Hall

## DR. HOKE ROBINSON, <br> Coordinator of Undergraduate Studies

Room 314, Clement Hall

## Elther PHIL 1111 or PHIL 1611 may be taken first.

## E330 PHILOSOPHY (PHIL)

1111. Introduction to Philosophy. (3). Introduction to philosophy through problems arising from man's reflection on nature of world and his place and conduct in it;
1112. Elementary Logic. (3). Introduction to formal and informal reasoning that emphasizes logic as practical method for problem solving. (1509-1)
1113. Foundations of Western Philosophy: Classical Perlod. (3). Introduction to history of philosophy from 7 th 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 nonphilosocontributed. Readings tro
phical sources. (1509-1)
1114. Foundatlons of Western Phllosophy: Modern Period. (3). Introduction to history of philosophy from late Middie Ages 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 nonphil oso-
phical sources. NOTE: While this is a continuation of PHIL 3001 , it may be taken separately. [1509-1]
1115. American Philosophy. (3). Development of philosophy in America. (1509-1)
1116. Contemporary Moral Problems. (3). Such important contemporary moral issues as pornography and obscenity. capital punishment, abortion, human rights, 'reverse desideas for each issue considered and discussed. [1509-1]
1117. Existentiallsm. (3). Historical and comparative study of different existentialist writers and thell relation to literature. religion, and psychology. Readings from Kierkegaard,
Nietzsche, Jaspers, Heidegger, Sartre, and Marcel. (1509-1] 3511. Ethics. (3). Critical analysis of ethical theories and their application to problems of individual in society. PREREQUU[1509.1]
1118. Sclence, Technology and Human Values. (3). Ethical
problems growing out of development of modern science and problems growing out of development of modern science and
technology; of such issues as relation of science to society,
dehumanization of individual, impact of technology on envitechnology; of such issues as relation of science to
dehumanization of individual, impact of technology on environment, modern warfare, etc. Specific content of course varies each semester. [1509-1]
1119. Blomedical Ethics. (3). Discussion of ethical problems rased by contemporary medical practices and biological innovations from standpoint of contemporary ethical theories
including abortion, euthanasia, behavior modificatıon, human including abortion, euthanasia, behavior modificatıor
experimentation and genetic engineering. [1509-1]
1120. Intermedlate Loglc. (3). Symbolic logic, including prop-
ositional calculus, lower functional calculus, and related topics. PREREQUISITE: PHIL 1611 or permission of instructor. [1509-1]
1121. The Development of Sclentific Thought. (3). Historical introduction to science and scientific thinking; with selected
readings from both ancient and modern scientists and philosreadings from both ancient and modern scientists and philos-
ophers of science. PREREQUISITE: one course in philosophy or major in natural or mathematical sciences. [1509-1]
1122. Phllosophy of Sclence. (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. [1509-1]
1123. God and Man. (3). Major religious movements of Western world with regard to their origın, doctrines and philosophi-
cal significance. Attention to contrasting conceptions of natucal significance. Attention to contrasting conceptions of natu-
ral and supernatural and role of religion in man's ral and supernatural and role of religion i
understanding of himself and his society. [1509-1]
1124. Philosophy of Rellglon. (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, evil and immorta
ty. PREREQUISITE: PHIL 1111 or permission of instructor. [1509-1]
1125. Orlental Phillosophy. (3). Philosophies of India, China, and Japan, with readings from prımary sources of Hınduism, Jaınism,
[1509-1]
1126. Phillosophy In LIterature. (3). Expression of philosophi 3771. Philosophy in Literature. (3). Expression of philosophi-
cal ideas in literature. Readings from philosophers, playwrights, novelists and poets. [1509-1]
1127. Philosophy Honors Seminar. (3). Open to all students in the Honors Program and recommended for those students workıng towards Honors in phılosophy Specific content will vary each time course is offered. PREREQUISITE: Admission vary each time course is offered. PREREQUISITE: Admission
to Honors Program and one course in philosophy. [1509-1] 4211-6211. History of Anclent Phllosophy. (3). (3211). Selected readings from primary sources, supplemented by commentary from antiquity and modern scholarship, includ-
ing Pre-Socratics. Plato, Aristotle, and Hellenistic period. ing Pre-Socratics, Plato, Aristotle, and Hellenistic p
PREREQUISITE: PHIL 3001 or permission of instructor. PREREQ
[1509-1]
4311-6311. History of Modern Phllosophy. (3). (3311). Critical survey of major phillosophers of 17 th and 18 th century with
special attention to metaphysical and epistemological issues special attention to metaphysical and epistemological issues
that divided Rationalism and Empiricism. Readings from Des that divided Rationalism and Empiricism. Readings from Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kan
PRERE QUISITE: PHIL 3002 or permission of instructor. PRE REQU
$[1509-1]$
4372-6372. Kant. (3). Intensive study of major philosophical Works of Immanuel Kant; emphasis on The Critique of Pure Reason and on relation between Kant's critical philosophy and his ethics, aesthetics, and philosophy of religion. PREREQUI-
SITE: PHIL 3002 or 4311 or permission of instructor. [1509-1]
4422-6422. Recent Anglo American Philosophy. (3). Major 4422-6422. Recent Anglo American Philosophy. (3). Major
developments in phulosophy in England and United States from 1900 to presen; reading from such philosophers as Russell, Moore. Ayer, Wittgenstern, James, Dewey, Lewis,
Ouine and other contemporary authors. PREREQUISITE: PHIL Quine and other contemporary authors. PREREQUIS
3002 or 4311 or permission of instructor. [1509-1]
4440-6440. Philosophy of the Nineteenth Century. (3). (3372). Extensive reading in representative 19 th century philosophers from Fichte to Nietzsche; attention to German
Idealism (especially Hegel) and reaction against it (left and Idealism (especially Hegel) and reaction against it (left and
right wing Hegelianism, Marx, Kierkegaard, Nietzsche) as well right wing Hegelianism, Marx, Kierkegaard, Nietzsche) as well
as $u$ tilitarianism, Darwinism, and rise of positivism. PREREQas utilitarianism, Darwinism, and rise of positivism. PREREQ-
UISITE: PHIL 3002 or 4311 or permission of instructor. [1509-1]
4441-6441. Recent Continental Philosophy. (3). Major fig-
ures in 20 th Century European Thought. Such movements as phenomenology, existentialism, structuralism and hermene $u$ tics
4513-6513. Business and Professlonal Ethics. (3). Practices and ethics of individuals in business, law, government, social work, and other professions from the standpoint of contem-
porary ethical theory. [1509-1] 4531-6531. 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. opics include concept of law, legal realism, stare decisis,
equity jurisprudence, and civil disobedience. PREREQUISITE, one course in philosophy or permission of instructor. (1509-1] 4551-6551. Soclal and Polltical Phllosophy. (3). (3351). Major philosophical theories of man and the state; emphasis on concepts of society, culture, institutions, government, law,
power, authority, rights, and obligation. Selected readings power, authority, rights, and obligation. Selected readings
PREREQUISITE: one course in philosophy or permission of PREREQUISITE: On
instructor. [1509-1]
4552-6552. Marx. (3). Critical study of philosophy of Karl Marx, including the Manfesto, Capital and subsequent philosophical and historical developments,
4632-6632. Advanced Logic. (3). Nature of axiomatic systems, techniques of formalization, and logical foundations of mathematics. PREREQUISITE: PHIL 3621 or permission of
instructor. [1509-1]

4761-6761. The Phllosophy 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 [1509-1]
4801-6801. Systematic Toplcs In Phllosophy. (3). Epistemology, metaphysics, philosophy of language, philosophy of mind, logical theory, and axiology. Area to be covered appears in Schedule of Classes semester it is taught. May be repeated grade if different areas are treated. PREREQUISITE: two grade if different areas are treated. PREREQUISITE: two
courses in philosophy or permission of instructor. [1509-1]
4891. Senlor Honors Thesls. (3). Directed reading and research culminating in a Senior Thesis. Thesis topic to be selected by student with approval of thesis director before semester student intends to take course. Open only to senior honors students in philosophy. May be repeated in successive semesters for up to 6 hours credit. [1509-1]
Graduate courses in Philosophy: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School

## PHYSICS

PROFESSOR CECIL G. SHUGART, Chairman
Room 216, Manning Hall

## E350 PHYSICS (PHYS)

1111. Foundatlons of Physics. (3). Certain basic principles of science; particular stress on nature of physics; designed for student who has had no previous training in physics. Two student who has had no previous training in physics. Two
lecture, two laboratory hours per week. Credit will not apply lecture, two laboratory hours per week. Credit will not apply
toward major or minor in physics, chemistry, or physical scrence, nor will it satisfy any part of scrence requirements $m$ scrence, nor will it satrsfy any part of
1112. Foundations of Physics. (3). Continuation of PHYS 1111. Two lecture, two laboratory hours per week. Credit will not apply to major or minor in physics, chemistry or physical science, nor will it satisfy any part of science requirement in pre-professional curricula. [1902-1]
1113. General Astronomy. (3). Practical astronomy and solar system; Includes motions of earth and moon, apparent motions of stars and planets, eclipses, time and calendar, properties of bodies in solar system. Occasional observation periods at night. Two lecture, two laboratory hours per week
[1911-1]
1114. General 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 lec ture, two laboratory hours per week. [1911-1]
1115. General Physics. (4). Mechanics, heat, and sound; required of all technology, premedical, pre-dental, and prepharmacy students. Three fecture, two laboratory hours per week. PREREQUISITE: MATH 1212 . 11902 -1)
1116. General Physics. (4). Continuation of PHYS 2111; includes magnetısm, electricity, light, and modern physics.
Three lecture, two laboratory hours per week. PREREQUiThree lecture, two laborato
SITE: PHYS 2111 . [1902-1]
1117. Physics for Sclence and EngIneering. (4). Primarily for students intending to major in physics, chemistry, or mathematics; required of all students in engineering curriculum and recommended for students planning to teach physics in
secondary schools. Three lecture, two laboratory hours per secondary schools. Three lecture, two laboral
week. PREREQUISITE: MATH 1321. [1902-1]
1118. Physics for Sclence and EngineerIng. (4). Continuation of PHYS 2511. Three lecture, two laboratory hours per week PREREQUISITE: PHYS 2511. [1902-1]
1119. Speclal Toplcs in Applled Physics. (3). Applied areas of physics, including optics, electronics, acoustics, and radiaThree lecture hours or the equivalent faboratory hours per Three lecture hours or the equivalent laboratory hours per
week. Thus course may not be counted toward a major in physics. [1902-8]
1120. Introduction to Modern Physics. (3). Principles of relativity, quantum mechanics and atomic physics; selected topics in solid state, nuclear, and molecular physics. Three lecture hours per week. [1902-1]
1121. Blophysics. (3). Selected topics from biophysics; with emphasis on understanding of basic physical principles and the equivalent laboratory hours per week. [0415-1] 3111. Mechanics. (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. [1902-1]
1122. Mechanics. (3). Continuation of PHYS 3111. Three lecture hours per week. PREREQUISITE: PHYS 3111. [1902-1] 3211. Electricity and Magnetism. (3). Electromagnetic fields and waves, including such topics as dielectrics, induced electromotive force, magnetic energy, magnetic materials, Max well's equations, and reflection and refraction. Three lecture hours per week. [1902-1]
1123. Electricity and Magnetism. (3). Continuation of PHYS 3211. Three lecture hours per week PREREQUISITE. PHYS 3211. [1902-1]
1124. Electronics. (4). Theory and application of electronic devices; emphasis on scientific instrumentation. Laboratory oriented course including basic semiconductors, integrated circuits, and microprocessors. Three lecture, three laborato ry hours per week PREREQUISITE. PHYS 2512 or 2112 or
equivalent. [1902-1]
1125. Experimental Techniques. (1). Introduction to indepen dent experimentation including shop practices, glass blowing and preparation of experimental data for computers. Some experiments of traditional nature related to physics courses. standing or permission of instructor. 11902-8]
1126. Experimental Techniques. (1). Continuation of PHYS 3610. Three laboratory hours per week. [1902-8]
1127. Physlcs of Flulds. (3). Thermodynamic relationships describing behavior and flow of fluids under single- and twophase conditions. Application to nuclear power plants. PRE-
REQUISITES: MATH 2321, PHYS 2512. [1902-1]
1128. Nuclear Heat Mechanics. (3). Heat transfer mechahisms and application to nuclear power plant reactor cores, heat exchangers, steam generators, condensor
REQUISITES: MATH 2321, PHYS 2512. [1902-1]
1129. Stress Mechanics. (3). Failure modes of materials including metals, ceramics, and plastics. Application to nucle-
ar power plants. PREREQUISITES: MATH 2321, PHYS 2512. ar power
(1902-1]
1130. Advanced Experimental Physics. (1). Advanced classical and modern laboratory experiments; emphasis on effective plannıng and performance of experiments with appropriate interpretation of data. Three laboratory hours per week [1902-8]
1131. Advanced Experlmental Physlcs. (1). Continuation of PHYS 4010. Three laboratory hours per week. [1902-8]
1132. Applled Radlatlon Physlcs. (3). Applied radiation and radioactivity. Includes types of radiation, radiation measure ment, interaction with matter, and biological effects. Radiation safety aspects emphasized. Three lecture hours per
week. PREREQUISITE: PHYS 2112 or 2512 and MATH 1321. [1902-1]
1133. Applled Radlation Physlcs. (3). Continuation of PHYS 4021. Three tecture hours per week. PREREQUISITE: PHYS 4021. [1902-1]
1134. Radlation Physics Laboratory. (3). Radiation and radioactivity. Experiments emphasize measurement and laboratory hours per week. PREREQUISITE: PHYS 4021. laboratory
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. [1912-1]
4110-6110. Nuclear Physlcs. (3). Properties of atomic nuclei, radioactive transitions, alpha, beta, and gamma decay. Binding energy, nuclear forces and nuclear models. Three lecture ing energy, nuclear forces
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. [1902-1]
1135. Reactor Physics. (3). Theory and operation of nuclear reactors as energy source for large scale power operation, including fundamental concepts of physics applied to produc-
tion and control of nuclear chain reactions. Three tecture tion and control of nuclear chain reactions. Three lecture
hoursper week PREREQUISITES: PHYS 2111 and 2112 or the hours per week PREREQUISITES: PHYS 2111 and 2112 or the equivalent. [1904-1]
1136. Advanced Reactor Physics. (3). Continuation of reactor physics; emphasis on reactor design parameters. PREREQUI IfES: MATH 2321. PHYS 4220. [1904-1]
4410-6410. Introduction to Quantum Theory. (3). Experimental basis of quantum theory; development of Schrodinger equation and its solution of simple systems; selected applica tions in atomic and molecular structure. Three lecture hours
per week. [1902.1]
4510-6510. Thermodynamics. (3). Mathematical treatment of thermodynamics, including such topics as work, energy, enthalpy, entropy, reversible and irreversible processes, equilibna, specific heats, and phase transitions. Three fecture hours per week. [1902-1]
4610-6610. Solld State Physics. (3). Such topics as lattice vibrations, specific heats, electrical and thermal conductors in olids, magnetism. Three lecture hours per week. [1902-1]
1137. Spectroscopy. (3). Basic theory and experimental techniques presented in survey of various fields of spectroscopy ncluded are considerations of infrared, ultraviolet, micro wave, Raman, and magnetic resonance spectroscopy. Three lecture hours per week. [1902-1]
1138. Theoretical Physics. (3). Special mathematical techniques in solution of physical problems. Emphasis on vector calculus, boundary value problems, eigenvalue problems, and Fourier series. Three lecture hours per week. PREREQUISITE: PHYS 2512. [1902-1]
1139. Seminar. (1). Special projects, reports and investıgation of current literature and research. May be repeated for maximum of 2 semester hours credit. PREREQUISITE: permission of instructor. (1902-8)
Graduate courses in Physics: For course descriptions and urther deta⿰ls of the graduate program, see The Bulletin of The Graduate School

## POLITICAL SCIENCE

## PROFESSOR H. PIERRE SECHER, 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 Relatıons +5 , Public Administration +6 , and Special +7 and 8

The prerequisite for all 4000 level courses is elther junior
standling or the permission of the Instrucfor.

## E370 POLITICAL SCIENCE (POLS)

1100. American Government. (3). (2211). Origins of our system of government, framing of constutution, principles underlying constitutional government. citzenship, civil rights. political instututions, national executve, congressional organization and functions, and judicial process. [2207-1]
1101 . Bastc lasues of Poltitcs. (3). How people distribute power, confer authority. resolve conflict, and pursue goals within a political system. [2207-1]
1101. Comparative Pollitcs. (3). Introduction to comparative study of politics with application to selected countries.
$[2207.1]$
1102. International Polltics. (3). Relationships among nationstates, ranging from war to cooperation; emphasis on both 3100. Polltical Inquiry. (3). Research process in political science; emphasızes skills common to all subfields of political science-familarity with sources of data and documents. research design and general analytic skills. [2207-1]
1103. Rellgion 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. [2207-1]
1104. State and Local Governments. (3). Role of state governments in Federal System, political institutions, elections; organization, functions, and problems of state government; emphasis on Tennessee government. [2207-1]
1105. Introduction to the Study of Publlc Pollcy. (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 makıng, and policy administration. [2207-1]
1106. Polltical Parties. (3). Political party as process of government; emphasis on party organızation, activities, nominatung and campa!gn methods, voter participation, and twoparty system. [2207-1]
1107. Urban Polltics. (3). Functions and role of government in urban America in context of urban politics and social, econom-
ic. and governmental problems of cities and suburbs. (2207-1) 3302. Western European Government and Polltics. (3). Com parative study of selected political systems of Western European States. [2207-1]
1108. Latin American Government and Polltics. (3). Forms of organization, functions and operations of government in Latin America. Emphasis on development of political institutions and present day trends. [2207-1]
1109. Government and Polltics of South Assla. (3). Political institutions and governmental processes of selected South Asian states. [2207-1]
1110. Government and Polltics of North Africs and Middie East. (3). Analysis of organization and functions of governments in area dominated by tenets of Islam, including exami-
nation of origin and development of Arab-Israeli conflict [2207-1]
1111. Legal/Polltical Thought: Classical. (3). Question of justice and its relation to law and politics. Emphasizes confrontation between classical and modern views
1112. Legal/Polltical Thought: Modern. (3). Question of justice andits relatıon to law and politics. Emphasızes confrontation between early and recent modernity
1113. Introductlon to Law and Jurlsprudence. (3). Sources. functions, and processes of law. [2207-1]
1114. International Organlzation. (3). Origins, structure, functions, and evolution of selected international organizations. The United Nations and/or regional and functional organizations serve as basic references. [2210-1)
1115. American Forelgn Policy Process. (3). American foreign policy; emphasis on factors involved in developing and implementing policy [2207-1]
1116. Pubilc Administration. (3). Concepts and practices of organızation and management in executive departments, national, state, and local; analysis of bureaucracy, administra-
tive theory, budgeting, personnel, and admınistrative leadertive theory, budgeting, personnel, and admınistrative leadership. [2102-1]
1117. Personnel Management for the Fire Service. (3). Personnel practices and management procedures. Included are manpower planning, labor relations, recruitment, selection,
testing. performance appraisals, classification, motivation, testing. performance apprasais, classification, motivation,
politics, and management. PREREQUISITE: admission restricted to students seeking BPS degree in Fire Administrarestricted to students seeking BPS degree in F
tion or Fire Prevention Technology. [2102-9]
1118. Disaster and Fire Defense Planning. (3). Concepts and principles of community risk assessment, regional and coop erative procedures and plans, relationship of structural, climatic, and topographical variables to group fires, conflagrations, and natural disasters, pre and post occurence factors, communicatıons, planning, organizing, coordination, com-
mand and logistics. PREREQUISITE; admission restricted to mand and logistics. PREREQUISITE: admission restricted to
students seeking BPS degree in Fire Administration or Fire Prevention Technology. [2102-9]
1119. Fire Prevention Organization and Management. (3). Examines and evaluates techniques, procedures, programs and agencies involved with fire prevention. Includes public and private fire prevention functions, licenses, permits, zoning, incendiary analysis. PREREQUISITE: admıssion restricted to students seeking BPS degree in Fire Administration or Fire Prevention Technology. [2102-9]
1120. Advanced Fire Administration. (3). Overview of organi zation and management in modern fire service. Includes management of equipment and personnel, fire departmen functions, planning, resource development, labor relations
PREREQUISITE: admission restricted to students seeking BPS PREREQUISITE: admission restricted to students seeking BPS
degree in Fire Adminis tration or Fire Prevention Technology. degree in
[2102-9]

4101-6101. Techniques of Political Analysis. (3). Introduction to analysis of quantitative data used to test hypotheses in helds of political science and public administration, including both parametric and nonparametric techniques. Particular attention to alternative measures of association and signifi-
cance, regression, factor analysis, path analysis, and causal cance, regression, fall
modeling [2207-1]

4102-6102. Polltical Behavior. (3). Introduction to contributions of behavioral sciences to understanding of political system. Political behavior as manifested in formation of
attitudes, public opinion, group organzation, and political attitudes, public
power. [2207-1]
4211-6211. Constitutional Law: National Powers. (3). Relationships and controls of three branches and nature of division of power between nation and states; emphasis on role of 4212-6212. Constitutional Law: CIvil Libertles. (3). Judicial interpretation of political and civil rughts; emphasis on period since 1945. [2207-1]
4213-6213. Public Policy. (3). Selected public policy issues and politics in policy making process. [2207-1]
4214-6214. The Presidency and Executive Decision-making. 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. [2207-1] 4215-6215 Constitutional Pollcies and The Judicial Process. (3). Limits of political resources and power of judiciary Primary attention to extent to which United States Supreme Court able to obtain compliance with its decisions on highly politicized and controversial questions of public policy; Cour in conflict with other branches of the national government the state governments, and public opinion. [2207-1]
4216-6216 Interest Groups In the American Polltical System. (3). Role and impact of selected interest groups within Ameri can political system. Group theory, tactics, and group rela
tionships with various governmental institutions. [2207-1]
4217-6217. The Leglslative Process. (3). Origins, organiza tion, functions, and activities of modern legislature; making laws, supervising the administration, representing and informing people. [2207-1]
4218-6218. Public Opinlon and Polltics. (3). Formation, measurement and content of public opinion about political issues
Includes a public opinion poll of local community. [2207-1]
4221-6221. Urban Administration. (3). Politics, administra tion, and public policy in urban context. Focus on admınistrative aspects of selected governmental policy-making processes; interrelationships of governments at various levels; urban challenges facing modern public administrators. [2102-1]
4224-6224. Urban Problems. (3). Selected problems in urban dministration, politics, and policies. [2214-1]
4225-6225. The Courts and Urban Pollcy. (3). Courts as policy-makers in urban realm. How, why, and to what extent courts have become major participants in shaping of urban policies; institutional competence of judiciary to deal with these matters. [2207-1)
4230-6230. Legislative Internship. (3-12). Supervised internship working with Tennessee General Assembly or other egislative bodies on current legislative programs. Seminar sessions to discuss and analyze problems with which interns
are working. May be repeated for total of 12 credits. PREREQUISITE: permission of department. [2207-5]
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: permission of department [2207-5]
4305-6305. Soviet Government and Politics. (3). Organization and functions of authoritarian state; emphasis on role of Communist Party and ideology. [2207-1]
4306-6306. Contemporary Latin American Politics. (3). Contemporary problems in Latin American politics and inter American relations. [2207-1]
4307-6307. Government and Polltics of Communlst China. (3). Institutions of government, political process, political elites, political groups and political socialization in Communis China. [2207-1]
4309-6309. Comparative Political Parties. (3). Political parties and party systems in selected countries. [2207-1] 4311-6311. Comparative Political EIItes, (3). Role of political
elites in selected political systems. (2207-1] 4313-6313 Comparatlve Publlc Pollcy. (3). Formation and implementation of major substantive areas of public policy in selected countries. [2207-1]
4399-6399. Research and Studles Abroad. (1-6). Supervised field research and studies in selected foreign countries. May be repeated up to six hours. [2207-8]
4401-6401. Modern Polltical Ideologles. (3). Major ideologies affecting modern politics. Includes ideologies of democracy communism, and facism as well as capitalism and socialism, racism, and nationalism, and ideologies of developing or "third" and "fourth world" nations. [2207-1]
4403-6403. Contemporary Protest Thought. (3). Political theories of recent and contemporary protest. Subject matter varies according to what currently excites political protest but recent topics have included the political elements of black protest, the new left, the new right, women's liberation
ecology and energy, and consumer's movements. [2207-1]
4405-6405. Amerlcan 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. [2207-1]
4407-6407. Black Polltical Thought. (3). Analytical survey of black political thought from colonial period to present
Emphasis upon recent and contemporary thought. [2207-1]

4409-6409. Marxism and Politics. (3). Impact of Marxism on political ideas. practices and movements throughout the world
4501-6501. Contemporary Problems In International Polltics. (3). Emphasis on major powers. (2210-1]
4502-6502. Soviet Forelgn Policy. (3). Basic concepts of patterns of Soviet relations with key nations; major problems in future relationships. [2207-1]
4504-6504. International Law. (3). Nature, scope, duties, rights, and evolutionary trends of international law. [2210-1] 4505-6505. Comparative Communist Systems. (3). Crossnational comparison of adaptation of ruling and non-ruling communist parties to different political environments Includes examination of inter-party and intra-block relations
[2207-1] [2207-1]
4506-6506. Problems of American Forelgn Pollcy. (3). American foreign policy problems taken from specific areas or issues of policy. [2207-1]
4508-6508. Theorles and Concepts In International Politics. (3). Theoretical approaches to study of international politics. Attention to method
simulation. [2207-1]
4509-6509. Compar
4509-6509. Comparative Forelgn Pollcles. (3). Foreign policies of major actors (nation-states, groupings such as oilproducing nations of OPEC, and other entities) in world
politics. [2207-1]
4602-6602. Public Finance Administration. (3). Detailed study of administrative and political problems of fiscal policy. budgetary process, and fiscal controls. [2102-1]
4603-6603. Public Personnel Administration. (3). Policies, methods and techniques utilized in public personnel adminis-
tration. Attention to problems reflecting contemporary tration. Attention to problems reflecting contemporary demands upon personnel organizations. Capacity to analyze problems, select most effective means of dealing with them, and plan a
4604-6604. Problems of Public Administration. (3). Problems in public administration process; emphasis on contemporary developments. [2102-1]
4605-6605. Program and Policy Evaluation. (3). Models, theories and techniques of program and policy evaluation in public administration. Includes evaluation research design, data collection and analysis, disseminsation of results. possible applications of evaluations to policy making and administration, and or
tion. [2102-1]
4611-6611. Administrative Law. (3). Role and nature of administrative law, including procedural requirements and judicial review of administrative actions and liability of government for torts and breach of contract. [2207-1]
4615-6615. Comparative Administration. (3). Investigation of administrative structures, functions, and controls in selected developed and developing nations. [2207-1]
4625-6625. Intergovernmental Relations In the United States. (3). Interdependencies and relations between governmental structures and organizations in American system; emphasis on problems of confict and coordination. [2207-1] 4701. Senlor Seminar In Pollitical Sclence. (3). Review of
professional literature generally or in particular area of politiprofessional literature generally or in particular area of politipolitical problems. PREREQUISITES: senior standing and political science major. [2207-1]
4702. Independent Study. (1-3). Independent investugation of research problem or directed reading in selected area of political science under tutorial supervision of member of
political science faculty. PREREQUISITE: permission of chairpolitical scienc
4705-6705. Special Toplcs in Publlc Issues. (3-6). Topics of current significance in public issues. May be repeated for current significance in public issues.
maximum of 6 hours credit. [2207-1]
4801-6801. Sclence and Politics. (3). Multiple interactions between the political systems and scientific and/or technological developments. Emphasis on complexities surrounding relationship between public policy and science, as exemplified in government decisions and actions regarding support, use
and control of scientific research and applied technology. and contr
[2207-1]
4802-6802. Sex and Polltics. (3). Legal and political rights and duties of both sexes; relationship of government to various types of sexual activity. [2207-1]
Graduate Courses in Political Science: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.

## PSYCHOLOGY

PROFESSOR MILTON TRAPOLD, Chairman
Room 202, Psychology Building

PSYC 1101 or 1102 is prerequistte for all other courses in the Department of Psychol
of Psychology majors.

## E390 PSYCHOLOGY (PSYC)

1100. Psychologlcal Princlples 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 encou
situations such as work, school, family, marriage. etc. situations
1101. General Psychology I. (3). Introduction to social aspects of psychology as a science of behavior. Areas of study include personality, abnormal behavior, psychotherapy.
social and developmental psychology, intellgence, and social and developmental
applied psychology. [2001-1]
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. [2001-1]
1103. Psychologlcal 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 proceanalyses. analys
dures. [2007-1]
1104. Introduction to Psychological Research. (3). Survey of logical and methodological considerations common to all
research and an overview of the range of observation, measurement and laboratory procedures employed, and presentations of their own research by various members of the tations of their own researc
faculty. COREQUISE: PSYC 2301.
[2002-1]
1105. Psychology of Personallty. (3). Introduction to development and functioning of normal person. Variety of representative theoretical orientations examined; emphasis on psycho-
analytic theories and other 20th century theoretical analytic theories and other 20th century theoretical
viewpoints. [2001-1]
1106. Abnormal Psychology. (3). Basic concepts of psychopathology with emphasis on the development of behavior deviations, description of various neurotic and psy-
chotic reactions, and an introduction to methods of psychochatic reactions.
therapy. [2003-1]
1107. Child Psychology. (3). Patterns of cognitive, interpersonal, and behavioral development from birth through early environmental influences as the child matures. [2009-1]
1108. Adult Psychology. (3). Patterns of cognitive, interpersonal 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 midiffe crises, and death. [2009-1]
1109. Soclal 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. [2005-1]
1110. Chlld Psychopathology. (3). Introduction to major theoretical formulations of childhood disorders, including learning, developmental, psychoanalytic and family systems theories. Emphasis on basic research that contributes to understanding of difficulties such as learning disabilities, men-
tal retardation, childhood autism, hyperactivity, and juvenile tal retardation, childho
delinquency. [2003-1]
1111. Special Topics in Personality, Psychopathology and Development. (1-6). In depth coverage of topics not covered sufficiently in the other 31 - series of courses. Particular topics each semester will be advertised in the department prior to registration. May be repeated for
hours when the topic varies. [2001-1]
1112. Sensation and Perception. (3). (4203). Major senses, methods used to study them, and applications of this knowiedge. Perceptual and related interpretative process that
operate upon sensory information, and relationship of those operate upon sensory information, an
processes to learning and motivation.
1113. 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 new behaviors and aiteration of existing behaviors in animals cepts and issues in learning. [2002-1]
1114. Physlologleal Psychology. (3). (4201). Survey of physiological processes underlying sensation, perception, motiva tion and emotion, motor systems, uniearned and learned behavior patterns, memory and other psychological functions. [2002-1]
1115. Animal Behavior. (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 phyleticc classification, major
1116. Special Topics In Experimental Psychology. (1-6). Indepth coverage of topics not treated sufficiently in the other 31 - series of courses. The particular topics to be covered each semester will be advertised in the department prior to registration. May be repeated for maximum of 9 credit hours when topic varies. [2001-1]
1117. Psychological Principles In Law Enforcement. (3). Application of psychological principles to law enforcement. Law enforcement both at the institutional ievel and at the level
of the individual police officer dealing with the public. [2001-1]
1118. Psychological Testing. (3). (4301). Essentials of testing, 3502. 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-and-pencii" group tests; questionnaire construction and administration. group tests, questionnaire construction and adm
PREREQUISITES: PSYC 2301 and 3101 . [2006-1]
1119. Introduction to Clinical Psychology. (3). (4302). Survey of history of clinucal 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 these technıques. Field
psychologists. [2003-1]
1120. Introduction to Behavior Therapy. (3). (4303). Survey of behavior therapy techniques, including observational procedures, methods of remediation, data recording and report writing. PREREQUISITE: PSYC 3102. [2003-1]
1121. 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. [2099-9] supervised community research. (2099-9]
1122. Human Sexuallty. (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 . are also
(2001-1)
1123. Alcohol, Drugs and Behavior. (3). Survey of major drugs of abuse, their mode of action, and their behavioral effects. both acute and chronic. Major theories of etiology and mainteprevention, intervention and treatment. [2011-1]
1124. Industrial and Organizational Psychology. (3). (3301). Application of psychological concepts and methods to phenomena in industrial and organizational settings, with emphasis on personnel selection, classification and evaluation. employee attitudes, morale and motivation, and psychologrcal analysis of the condition of work. [2008-1]
1125. Speclal Toplcs in Applled Psychology. (1-6). In depth coverage of topics not treated sufficiently in the other $35-$ series of courses. Particular topics each semester will be advertised in depar tment prior to registration. May be repeated for maximum of 9 credit hours when topic varies. [2001-1] 3600. Honors SemInar In Psychology. (3). Reserved for students entering the Honors Program in Psychology. Intro-
duction to the psychological research activities within the duction to the psychological research activities within the
Psychology Department and to the scholarly literature which Psychology Department and to the scholarly literature which preceded and has resulted from this research. PRERE UtSITE: admission to the Honors Program in Psychology. Students enrolied in honors programs ersewhere in the University may also enroll, after recelving per
of Honors in Psychology [ [2001-1]
1126. 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. [2001-1)
4501 . Senlor Seminar In Psychology. (3). Current theoretical issues and experimental studies in psychology; open to out-
standing advanced students by invitation of the faculty standing advanced students by invitation of the faculty (2001-1)
1127. Speclal Problems in Psychology. (1-3). Student, under faculty supervision, may (a) read intensiyely 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. permission of the department. (S/U) [2001-8]
1128. Directed Research. (3). Majors receive first hand research experience under tutorship of individual faculty 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 and 4504 may be repeated for a combined total of up to 9 hours. 6 with any one faculty member. PRREREQUISITE: permission of department. (S/U). [2001-8]
1129. Honors Thesis in Psychology. (1-6). Supervised individual research project. Reserved for students enrolled in the Honors Program in Psychology. Students recerve one credit hour for every 50 hours devoted to the thesis iproject, up to a
maximum of six credit hours. PREREQUISITE: good standing maximum of six credit hours. PREREQUISITE: 8
in the Honors Program in Psychology. [2001-8]
1130. Advanced Studles In Psychology for Honors Students. (3). Reserved for students enrolled in the Psychology Honors Program; permits them to attend 7000 level graduate courses and still receive undergraduate credit. May be repeated for a maximum of 12 credit hours. [2001-1]
Graduate courses in Psychology; For description of courses and graduate programs, see Graduate Bulletin.

## SOCIOLOGY AND SOCIAL WORK

PROFESSOR JERRY B. MICHEL, Chairman

Room 231, Clement Building

Soclology 1111 is a prerequisite for all other courses in soclology and soclal work.

## E410 SOCIOLOGY (SOCI)

1111. Introductory Soclology. (3). Relations among social values, social organizations, and social institutions. Processes such as change and contlict as well as institutions including family, economy, and educatoo.
1112. Contemporary Soclal Problems. (3). Investigation, analysis, and discussion of current social problems. [2208-1] 1900. Practitioner Perspectives on the Health Professions: (1). Social organizational aspects of medical practitioners' professional lives as presented by representatives of various medical fields. Designed only for students who have chosen medical careers. No prerequisite. (2208-1]
1113. Soclal Statistics. (3). Application of basic statistical concepts and techniques to social analysis. Description of data for single variables and for relationships between two
varables. Tests of significance for relationships between two variables involving sample data. Use of packaged statistical
computer programs for single and two variable analysis. computer programs for single and two variable analysis.
[2208-1]
1114. Methods of Soclal 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 coll
tion techniques. PREREQUISITE: SOCI 3311. [2208-1]
1115. Soclal Inequallty. (3). Unequal distribution of power. property, and prestige, how and why this inequality occurs;
and the resulting social strata such as "class" and "status and the resulting
group". (2208-1)
1116. Soclal and Ethnic Minoritles. (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 satisfac
[2208-1]
1117. Soclology 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 institutional differences in sex roles. [2208-1]
1118. Soclology of Deviant Behavior. (3). Contemporary theories of deviant behavior; major types of deviation in American society; relationship of deviant behavior and social disorganization to social change. [2208-1]
1119. Criminology. (3). Nature and significance of criminal behavior; statistics of crimınal behavior and criminals; trends in social reactions to criminal behavior and criminals. Development and nature of theories of criminal bethavior. Current
programs for treatment and prevention of criminal behavior. programs
1120. Population. (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. PRE-
REQUISITE: SOCI 1111 or instructor's permission. (2208-1)
1121. Introduction to Soclal Psychology. (3). Basic theory and research dealing with study of human behavior in social situations, emphasis on communication processes, socializa-(2005-1]
1122. Soclology of Formal Organizations. (3). Formal organizations in society and their effects on individual and group behavior. Emphasis on nature of bureaucracy-in business, educational, political, welfare, military, religious, and other
organ-izations (2208-1] organ-izations. [2208-1]
1123. Educational Soclology. (3). Sociological analysis of education and its functions; school and community relationships: problems of social change and educational adjustments. [2208-1]
1124. Marrlage and the Famlly. (3). Marriage and the famlly in contemporary society. Interrelationships with other major social institutions, mate selection, marital adjustments; parental and family disorganization. Contemporary changes
and conflicts in marriage and family. (2208-1) and conflicts in marriage and family. [2208-1)
1125. Industrial Soclology. (3). Social characteristics of business and industrial organizations; role of the consultant in personnel organization and human relations programs.
1126. Soclology of Rellglon. (3). Role of rellgion in social
systems; recigrocal influence of religion and modern society: systems; reciprocal influence of religion and modern society:
sociological analysis of religous organizations and the roles sociological analysis of religous organizations and the roles
which comprise them; social correlates of religious opinions which comprise them;
and attudes. [2208-i]
1127. Polltical Soclology. (3). Sociological examination of political institutions; cultural and social factors associated with political structure, political attitudes, and political behavior: political decision-making as sociological process; comparative and methodological study of social movements and political parties. [2208-1]
1128. Mexican Soclety and Culture. (3). (Same as ANTH 3930). Mexico's social development, population, contemporary institutions and cultural patterns, the felations, and social
nity and urban society, minority group rel nity and urban socie
problems. (2208-1)
1129. Soclal Change. (3). Sociological analysis of theory. nature, meaning, and consequences of social change
(2208-1] [2208-1]
1130. Rise of Soclological Theory. (3). Development of sociological theory; em
School."
[2208-1]
4211-6211. Contemporary Soclologlcal Theory. (3). European contributions. American developments and recent trends in sociological theory. [2208-1]
4312.6312. Intermedlate Soclal Statistics. (3). Multivariate analysis of social data. Use of computer programs for data 3311.3322 , or equivalents, or permission of the instructor. [2208-1]
1131. Race Relations. (3). Exploration into patterns of domenance; specific focus on institutionalized racism as it affects American Blacks. Attention given to ways in which racial inequitues reinforce the American stratification system. [2208-1]
1132. Soclology of Poverty. (3). Distribution of poverty and affluence in contemporary and industrial society Effects of
poverty on individuals and society. Theories of poverty. poverty
[2208-1]
1133. Juvenile Dellnquency. (3). Trends of fuvenile delinquency, development of case study techniques and diagnosis of juvenile delinquency: comparative analysis of various theoretical approaches. (2208-1]
4541.6541. Socioiogy of Aging. (3). (Same as SWRK 4541). Agersm in socioculturar context. current behiers, values, and norms regarding aging, structuralocation or aging in society: and institutional housing. crime, physical illness and mental lilness. [2208-1]

4620-6620. Human Ecology. (3). Spatial structure and land use patterns of urban, rural, and fringe areas; city growth, its spatial and communicative extension into suburban and rural areas. and impact on economy, values, and social organization of communities. (2208-1)
4631. Urban Soclety. (3). Cities: their basic historical and modern development, power structures. social institutions and relationships; future of the city. Problems of contempo-
rary cities such as slums. urban sprawl, transportation, and ethnic and racial segregation. Processes of change in urban environment. [2214-1]
4730-6730. Attitude Theory and Measurement. (3). Basic properties of attitudes; theories of attitude formation and change; attitude-behavior discrepancies. Assumptions and techniques of attitude measurement, including scaling. PREREQUISITE: SOCl 3322 . [2208-1]
4760. Socioiogy of Adolescence. (3). Social aspects of adolescence. Emphasis on socialization into youthhood, changing hature of adolescence in industrial societies, conflict of instututional demands with peer group membership, seli-identity
problems, values of youth subcultures and contracultures. problems.
(2208-1)
4842-6842. Sociology of Occupations and Professions. (3). Sociological analysis of division of labor, occupational groupings, career patterns, and professional associations in modern American society: meaning of work. (2208-1)
4851. Medical Soclology. (3). Sociological analysis of definttion and distribution of physical iliness and society's response
to its occurrence, focusing on roles of patient, physician and to its occurrence, focusing on roles of patient, physician and particularly the modern hospital. [2208-1]
4852. Sociology of Mental Iliness. (3). Sociological analysis of definition and distribution of mental illness and society's response to its occurrence, focusing on social organizational provision for professional and patient roles within contemporary therapeutic settings. [2208-1]
4911. Special Topics In Soclology. (3). Special areas of sociology not otherwise included in the curriculum. NOTE: Course may be repeated for a maximum of 6 hours credit [2208-1]
4912. Directed Individual Study. (1-6). Individually directed advanced reading and/or research in special areas of interest. NOTE: Course may be repeated for maximum of 6 hours est. NOTE: Course may be repeated for maximum of 6 hours
credit. PREREQUISITE: permission of department chairman. [2208-8]
4922. Senlor Seminar in Socioiogy. (3). Current theoretical issues and research in sociology. Open to senior sociology majors and to other advanced students by invitation. [2208-1)
Graduate Courses in Sociology: For course description and further details of the graduate program, see The Bulletin of The Graduate School.

## E470 SOCIAL WORK (SWRK)

2911. Introduction to Social Welfare. (3). American social welfare system: its basic principles, social values, and underlying assumptions regarding societal responses to human need Fundamental historical, philosophical, political, economic,
social, and psychological influences contributing to contemporary institutions of social welfare. (2104-1)
2912. Professional Soclal Work In Contemporary Soclety. (3) Social work as a profession within social welfare institution values, ethics, and overview of social work intervention at individual, family, group, community levels; roles of social workers in human service agencies. PREREQUISITE: SWRK 2911 or instructor's permission. (2104-1)
2913. Human Development and Social Interaction I. (3). Survey of human needs from birth through adolescence focus on role functions and relationships. Social and cultur ai variables and impact of critical life experiences. PREREQUI SITE: SWRK 2911, [2104-1]
2914. Models of Social Intervention. I. (3). Theories and concepts in social work, including introduction to case work, group work and community organization. Emphasis on case SITES: SWRK 2911 and 3902 and permission of Director, Division of Social Work. [2104-1]
2915. Models of Soclal Intervention II. (3). Emphasis on problem-solving models, assessment, interventive planning use of community resources, and functions of social workers extensive case analysis. PREREQUISITE: SWRK 3903.
(2104-1)
2916. Dynamics of Professlonal 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 worker;observational
and videotape. PREREQUISITE: SWRK 3903. COREQUISITE: SWRK 3904. [2104-1]
2917. Human Development and Social interaction II. (3). Social work approach to evolving adult person; focus on maturational crises and their impact on social functioning and role options within social networks. Bio-psycho-socio-cultural
framework viewing person individually and collectively, coping with group, organizational, and community realities, resources, and constraints. PREREQUISITE: SWRK 3902 . [2104-1]
2918. Sociology of Aging. (3). (Same as SOCI 4541). Agersm in sociocultural context, current beliefs, values, and norms regarding aging: structural location of aging in society, and implications of ageism in employment, poverty, private and
institutional housing, crime. physical illness and mental illinstitutional ho
ness. (2104-1]
2919. Field Instruction In Soclal Work, (3). Educationally focused, practice-oriented field work in wide range of social and human service agencies, both established and newly hours weekly May be group, and community needs, $12-16$ hours weekly. May be repeated for a maximum of six hours.
PREREQUISTES: SWRK 3903 and permission of Director, Division of Social Work. (2104-5)
2920. Toplcs In Speciailzed Social Services. (3). Topics in social needs and services, two to four areas related to student interest and emerging service needs. Directed by staff, with lectures from campus and social service community. PRE-
REQUISITE: Social Work major with senior status, or permisREQUISITE: Social Work maj
sion of instructor. [2104-1]
2921. Soclal Work Practice and Organizational Change. (3). Social change, with particular reference to social worker and social agency, principles of social change, sociology of social action, and an examination of social work delivery systems as bureaucracies. PREREQ
of instructor. (2104-1)
2922. Models of Social Intervention III. (3). Theory and application of group dynamics concepts as applied to individual in group, committee and community structures and functions, roles of social worker in these settings. [2104-1]
2923. Directed Individual Study. (1-4). Directed advanced reading, field study and/or research in special areas of socia 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. PREREQUISITE: Social Work major and permission of Director. Division of Social Work. [2104-8]
2924. Chlld Welfare Poilcy and Services. (3). Historic over view and contemporary application of child welfare policy problems in policy development, contemporary American child welfare services in both public and private domains child welfare services in both pubilic
PREREQUISTE: SWRK 3903. [2104-1]

# THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS 

## H500 BUSINESS ADMINISTRATION (BA)

In addition to specific prerequisltes, junlor standing or perm/sslon of the department chalrman is a prerequistte for
all 3000 and 4000 level courses In The Fogelman College of all 3000 and 4000 level co
Business and Economics.
3900. Study and Travel In Business and Economics. (3). Travel to important areas of world and conduct study of economic and business systems of selected countries under direction of the faculty of The Fogelman College of Business and Economics.
4000. Internship in international Business. (1-6). Practical operations of international business. Students placed for 1-8 month period with cooperating business firm operating in fields of international banking and finance, transportation, management, marketıng, or accounting. Academic credit granted upon certification of satisfactory performance by
cooperating business firm and upon acceptance by faculty of cooperating business firm and upon
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. PREREQ-
UISITES: 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. (O501-8) field of study. PREREQUISITE: senior status. (0501-8)
4990. Junior Achievement Advising Practicum. (3). Threehour credit course designed for two-semester duration. Students will have 1/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 o
Junior Achievement program advisor. (S/U). [O501-5]

## ACCOUNTANCY

PROFESSOR JAMES THOMAS THOMPSON, Chairman

Room 200A, The College of Business Administration Building

In addition to spec/fic prerequisites, juntor standing or perm/ssion of the department chairman is a prerequilite for
all 3000 and 4000 level courses in The Fogeiman College of all 3000 and 4000 level co

## H510 ACCOUNTANCY (ACCT)

2010. Fundamentais of Accounting i. (3). Study of 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 minimumnecessary attention to clerical operations. (0502-1)
2011. Fundamentals of Accounting II. (3). Continuation of Accounting I plus general survey of cost accounting, income taxes. financial statement analysis, and special accounting analysis for managerial decision making. PREREQUISITE:
ACCT 2010. (0502-1)
2012. Accounting Laboratory. (1). Working of practice set involving current accounting practice. PREREQUISITE: ACCT 2010. [0502-1]
2013. 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 manage3110. Intermediate Accounting I. (3). Review of accounting process and financial statements; cash and cash flow; recelvables; current liablities; investments: intangible assets. PREREQUISITES: ACCT 2020 and 2720 . (0502-1)
2014. intermedlate Accounting II. (3). Property and equipment; contributed capital, retained earnings and dividends: treasury stock: bonds, income taxes: long term investments. statements from incomplete records, statements ond PRERESUISITE: ACCT 2720 and 3110. [0502-1]
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
variances and their meaning. PREREQUISITE: ACCT 2020. [0502-1]
2016. Federal Income Tax I. (3). Regulations pertaining to individuals and partnerships; instaliment and deferred payment sales; introduction to corporat
SITE: ACCT 2720 and 3110 (0502-1]
2017. Advanced Accounting. (3). Partnerships, consignments, installment sales, statement of affairs, recelver's
combinations and consolidated financial statements, branch accounting, fund accounting, inter
REQUISITE: ACCT 3120 . (O502-1)

4240-6240. 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 of various papers. reports to clients: practice aud
out. PREREQUISITES: ACCT 3120, 3310. (0502-1)
4310. International Accounting. (3). Comparative study of international accounting and auditing practices: variations in accounting thought: reporting standards; taxation in interna tional operations; professional and ethical standards; effect of government regulation on accounting practice. PREREQUI
SITE: ACCT 2020. $10502-1$ )
4450. Accounting Systems. (3). Problems involved in designing accounting systems for various types of businesses, including processing accounting data by electronic comput
PREREOUISITES: ACCT 3120,3310 and MGMT 2750 [0502-1]
4520-6520. Federal Income Tax ii. (3). Laws and regulations for corporations, estates and fiduciaries. Includes project on tax research. PREREQUISITE: ACCT 3510. 10502-1]
4540-6540. Governmental Accounting. (3). Accounting theory and practice applicable to federal, state, and local government and to non-profit institutions; budgetary control; controports. PREREQUSITE: ACCT 2020 (0502.11 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; pension plans and leases; calculation of earnings per share; stock rights, stock options and convertible securities. Current pronouncements of FASB. CASB and AICPA commit-
tees Overview of accounting process and ethics through case studies. PREREQUISITE: two senior level accounting courses. [0502-1]
4810. Internship In Accounting. (3). Seniors, after receiving approval of accounting faculty, placed in offices of cooperating public accounting firms to receive on-the-job training under direct supervision of certified public accountant and general supervision of University accounting staff. Credit allowed upon acceptance of report of work done, verified by supervising accountant. Minimum time: 500 hours. PREREQ-
UISITE: senior standing (0502-5] UISITE: senior standing. (0502-5)
Graduate Courses in Accountancy: For course descriptions and details of the graduate programs, see The Bulletin of The Graduate School.

## ECONOMICS

## PROFESSOR THOMAS O. DEPPERSCHMIDT, Chairman

Room 400, The College of Business Administration Building

In additlon to speciflc prerequisites, junlor standing or perm/ss/on of the department chairman is a prerequ/site for
all 3000 and 4000 level courses in The Fogelman Coliege of Business and Economics.

## H520 ECONOMICS (ECON)

1010. Economic issues and Concepts. (3). Critical examination of current economic issues facing the country. Discussion and use of elementary tools of economic analysis for familiarization with importance and applicability of economic reason ing. Will not satisfy either ECON 2110 or 2120
College of Business Administration. [2204-1]
1011. Introduction to Macroeconomics. (3). Nature and functions of national economy. Includes supply and demand, national income and product, consumption and investment
behavior, fiscal and monetary policy, and international trade and finance. (0517-1]
1012. Introduction to Microeconomics. (3). Tools of economics as they apply to operation of market economy. Includes supply and demand analysis, consumer behavior, economic nature of production and cost, behavior of firms in both competitive and monopoly environments. income distribution system. PREREQUISITE: ECON 1010 or 2110 recommended but not required (0517-1)
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 [0517-1]
1014. Principies 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 production and cost, competitive and monopolistic market
structure, income distribution, and effects of government structure, income distribution, and effects of government
intervention in market system. PREREQUISITE: Invitation by intervention in market system. PREREQUSITE: Invitation by
Department of Economics or admission to University Honors Department of Eco
Program. [O517-1]
1015. 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 ( $0517-1$ )
1016. 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 . [0517-1]
1017. 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: forecasting and scia
ECON 2110 . (0517-1]
1018. Economic Deveiopment 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 . (O517-1)

## 3580. Internationai Economic Development - An Ecologicai

 Perspective. (3). Process of economic development as a daptive interplay between man's needs and ways in which environment exploited to satisfy those needs in both developed andless developed countries. PREREQUUSITE: ECON 1010 or 2110 or consent of instructor. [0517-1]
3610. Money and Banking. (3). Monetary and banking history of leading countries with special emphasis on theory of money
and banking in United States, deposit and earnings oper ations and banking in United States, deposit and earnings oper ations
of individual banks, interbank and central bank relations. of individual banks, interbank and ce
PREREQUISITE: ECON 2110. [0504-1]
3810. 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 manpower problems, methods of manpower research, goals
of manpower planning, and approaches and techniques of of manpower planning, and a
manpower planning. [ $0506-1$ ]
3811. 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 coordimanpower programs, delivery of manpower services, coordi-
nation of programs among manpower agencies, and evaluanation of programs among manpower agencies, and evalua-
tion of manpower programs. PREREQUISITE: ECON 3210. [0506-1]
4040. 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, envir onmental protecics of discrimination. PREREQUISITE: ECON 2120. [0517-1]
4111. Managerial Economics. (3). Direct application of economics to common business problems. Economic framework and empirical techriques of production and cost analysis. project evaluation, pricing, and demand analysis. PREREQUI-
SITES ECON 2120 and MGMT 2711, 2750 . $0517-1]$
4120. Economic Forecasting. (3). Current economic thinking on problems of recession and inflation as background to economic forecasting. Methodologies of forec asting analyzed
with examples of each. PREREQUISITE: MGMT 2711 or equivewon examples of each. PREREQUISITE: MGMT 2711 or equiv-
witent. (O517-1)
4130-6130. Government Regulation of Business. (3)
Approaches to legal and legislative control of business especially tax laws, commission regulations, and anti-monopoly legislation - in view of impact of each on industrial operating policy. PREREQUISITE: ECON 1010 or 2110.
$(0517-1)$
4140. Industrial Organization. (3). Economic analysis of two aspects of American industry: i) 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 manufacturing, transportation and trade. PREREQUISITE: ECON 2120 .
[O517-1] -1
4340. Comparative Economic Systems. (3). Theoretical
framework underlying major alternative economic systems framework underlying major alternative economic systems - capitalism, socialism, communism, fascism - with U.S. Sweden, the U.K., the U.S.S.R., and Spain as examples. Attention to problems and difficulties associated with integration of systems. PREREQUISITE: ECON 1010 or 2110
(1)
4350. International 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. PREREQUISITE: ECON 2120 or equivalent. [ $0517-1$ ]
4410. Development of Economic Thought. (3). Historical development of economic thought. Attention primarily on emergence of Classical and Neoclassical thought, several dissident schools of thought, and twentieth-century econom
ic thought PREREQUISITE: ECON 1010 or 2110. (O517-1]
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. PREREQUISITE: ECON 1010 or 2110 . [2204-1]

4610-6610. Central Banking and Monetary Management. (3). History and economic function of central banks. Analysis of role of monetary policy in achieving predetermined objec tives; emphasis on interrelationships of monetary policy
central banking, and financial markets. PREREQUISIFE: ECON central banking, and fina
3320 or 3610 (0504-1)
4720. Economics of the Pubiic 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 stand-
point of economic effects. PREREQUISITE: ECON 2120 .
(0504-1]
4740-6740. Heaith 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 United States and other countries.
4750. 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 admunistration. Fiscal relations of intergovernment units, their expenditure elements. debt policy, budgeting, and financial administration. PREREQUISITE: ECON 1010 or 2110 . [0504-1]
4810-6810. 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: developing relevant analytical methods. PREREQUISITES:
one year of college mathematics and ECON 3310 . (O517-1)
4910. Problems in Economics. (3). Students investigate issues surrounding selected economic problem and develop report of that investigation. May not be repeated for credit. PREREQUISITE. upper division standing and approval of department chairman. [0517-1]
4920. Senior Seminar in Economics. (3). Coordinated by department chairman and conducted by selectedmembers 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. (0517-1]
4930-6930. Economic Evaiuation of Investment Projects. (3). Objective evaluation of proposed business and social projects. Concentrates on tools of cost-benefit analysis and provids. instruction in making and controling project budgets PReREQUITIES. ECON 1010 or 2110 . (0517-1)
4996. Honors Thesis in Economics. (3) Independent research open only to students enrolled in Economics Department
Honors Program. Honors thesis supervised by three-faculty Honors Program. Honors thesis super vised by three-faculty committee selected by student and approved by Economics
Honors Committee. PREREQUISITE permission of EconomHonors Committee. PREREQUISITE permission of Econom-
ics Department Honors Committee. (0517-8)

Graduate Courses in Economics: For course descriptions and detaik of the graduate program, see The Bulletin of The Graduate School

## FINANCE, INSURANCE AND REAL ESTATE

PROFESSOR ROGER K. CHISHOLM, Chairman

Room 402. The College of Business Administration Building
In addition to specific prerequisites, Junlor standing or permisslon of the department chalrman ls a prerequisite for
all 3000 and 4000 level courses in The Fogeiman College of all 3000 and 4000 level courses in The Fogeiman College of Business and Economics.

## FINANCE, INSURANCE AND REAL ESTATE (FIR) H530

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 a student after he has recelved credit for FIR 3710 or 3810. credit will not count for BBA degree [0501-1]
2221. Business Law. (3). Elements of law and legal principles encountered by businessman. Emphasis on basic law of contracts, sales and secured transactions, negotiable instruments, real and personal property, agency, forms of business organization, suretyship, insurance contracts and torts. l0501-1]
2222. The Legai, Social, and Poilitical Environment of Business. (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 case discussions. [O5O1-1]
2223. Real Estate Principies. (3). Basic termınology, principles and issues Topics include market analysis, real estate law, instruments. legal descriptions, appraisal, investment, finance, brokerage, property management, and development. 3410. Business Finance. (3). Integration of principles of financial management with institutional finance. Current topics of managerial finance including working capital management, capital budgeting, and acquisition of funds. PREREQUISITE
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. management; and the psychological aspects
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 ana yzed. [0504-1]
2226. Commodity Futures Market. (3). Mechanics of trading including the contract, commodities traded, exchanges involved, etc. Transter of risk and stablization of prices
through futures trading Role of speculators Buying/selling strategies including hedging used by farmers, commodity marketers, speculators, and processors. [O509-1]
2227. Principies of Risk and Insurance. (3). Theory of risk, risk management, and insurance practice and problems in fire lability, automobile, marine, surety, life, health and accident ines. [0512-1]
4011-6011. Law of Taxation and Planning of Estates. (3). Survey of law of taxation as applied to transmission of proper ty by gift or death and its impact upon accumulations of
wealth. Estate planning from individual viewpoint designed to wealth. Estate planning from individual viewpoint designed to
create, maintain, and distribute maximum estate possible. create, maintain, and distribute maximum estate pos
PREREQUISITE. FIR 3011 or consent of the instructor [0501-1]
2228. Special Topics. (3). Current topics in one of following areas: Finance, Insurance, Real Estate, or Business Law course emphasis will vary each semester. Specific course descriptions available through FIR Department prior to enrolldescriptions available thr ough FIR Department prior to enr oll-
ment. May be repeated once with change in topic area ment. May be repeated once with change in
PREREQUISITE: consent of instructor. (O599-1)
4310-6310. Reai 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. PREREQUISITE: FIR 3310. (051 1-1)

4320-6320. Reai Estate Finance. (3). Examination and analysis of source of funds for financing all kinds of real estate transactions, including FHA and VA types. PREREQUISITE FIR $3310 .[0511-1]$
4330-6330. Determinants in Housing Finance. (3). Consider ation of determinants of private and public demand for hous ing: relationships between construction and economic trends new town legislation, urban renewal and development improving environment and housing for low income groups criteria for assessing public policy, policy implementation; role of private enterprise in de veloping, maintaining and improving
housing. PREREQUISITE. FIR 3310. [0511-1]
4340-6340. Real Estate Appralsal. (3). Basic terminology, principles, procedures, and issues. Topics include the nature of value, princuples of value, appraısal process, market approach, cost approach, capitalization of income approach, gross rent multuplier approach, and appraisal reports.
4350. Real Estate Investment Analysis. (3). Real Estate investment principles and practices reviewed, analyzed and evaluated Emphasis on tax considerations, investment strategy ated Emphasis on tax considerations, investment strat
and model building. PREREQUISITE: FIR 3310. [0511-1] 4440. Manageriai Finance. (3). Analytical approaches to firm's financial decisions; including current asset management, capital budgeting, cost of capital, capital structure
determination, and dividend policy PREREQUISITE FIR
$3410 .(0504-1]$
4550. International FInance. (3). Financing international trade and investments; foreign exchange markets and exchange rates, balance of payments; current developments in international financial cooperation. (0504-1)
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 from standpoint of top level management and utilize both quantitative and qualitative analysis. PREREQUISITE. FIR 3410. (0504-1)

4720-6720. Operations and Management and FInanclal Instltutions. (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. PREREQUISITES ECON 3610. FIR 3410, and FIR 3720, or consent of the instructor. [0504-1]
4770. Securlty Analysls and Portfollo Management. (3). Development of techniques for finding actual worth of securities, primarily stocks and bonds. Portfolio management involves selection, timing, diversification, and other aspects of
supervising investment funds. PREREQUISITE: FIR 3710. supervisin
4790. Internship In Real Estato. (3). Seniors majoring in real estate, with approval of department faculty, placed with real estate firms to work in areas of real estate sales, brokerage. finance, development, appraisal and property management. in real estate courses and senior standing. [0511-5]
4810-6810. Property and Casualty Insurance. (3). Forms and functions of fire, marine, automobile, general liability, and other types of property and casualty insurance: emphasis on their application to commercial and industrial occupancies.
Current underwriting practice. PREREQUISITE: FIR 3810. Current
[0512-1]
4820-6820. Life and Health Insurance. (3). Functions of life and health insurance; emphasis on need for insurance and service of life and health insurance to American family and
community. Mechanics of private and public insurance and community. Mechanics of private and public insurance and
annuities. PREREQUISITE: FIR 3810 . [O512-1]
4840.6840. Multiple LIne Insurance Company Operations. (3). Company and industry functions other than contracts, including rating, rate-making, reserves, auditing, underwrit-
ing, reinsurance, claims, production engineering, and governing, reinsurance, claims, production engineering, and gov
mental supervision. PREREQUISITE: FIR 3810 . [O512-1]
4850 . Soclal Insurance. (3). Nature and causes of economic insecurity 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 detalled facts and and other approaches. De-emphasizes detailed facts and
statistics otherwise readily available from various governmenstatistics otherwise rea
tal agencies. $0512-1$ ]
4860-6860. Employee Benefit Programs. (3). Analysis of tax deferred employee compensation plans. Included are pension, profit-sharing, annuity, stock purchase and other incen-
tive or retirement plans. Group insurance and Social Security tive or retirement plans. Group insurance and Social Security
programs considered. (0512-1] programs considered. (051 2-1]
4870. Risk Management. (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 insur
ance as standard for comparisons. [O512-1] ance as standard for comparisons. (0512-1)
4910. Problems In FInance, Insurance, or Real Estate. (1-3).
Student will carry on approved research projects in his major area under supervision of staff members. PREREQUISITE: senior standing and permission of the department chairman. (0501-8)
Graduate courses in Finance, Insurance, and Real Estate: For detaits of the graduate program see The Bulletin of The Graduate School.

## MANAGEMENT

## ASSOCIATE PROFESSOR

 THOMAS ROGER MILLER, ChairmanRoom 202, The College of Busmess Administration Building

In addition to specific prerequisites, junior standing or permission of the department chalrman Is a prerequisite for
all 3000 and 4000 level courses In The Fogeiman College of Business and Economics.
Administration.

## H550 MANAGEMENT (MGMT)

1010. Introduction to Business. (3). Acquaintance with major institutions and practices in business world. Management helds include such areas as personnel management, labormanagement 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 freshmen only. NOTE:
If taken by students with 25 hours or more, credit will not If taken by students with 25 ho
count for BBA degree. [0501-1]
1011. Business 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 variabiliprobability theory, measures estimation of parameters, and ty, sampling distributions, estimation of parameters, and
eiementary decision theory PREREQUISITES: MATH 1203 and MGMT 2750 (or concurrent enrollment in 2750).
1012. Business Statistics II. (3). (3711). Topics include
of variance, simple and multiple techniques of regression and correlation analysis, and time-series analysis. PREREQUISITE: MGMT 2710.
1013. Introduction to Management Information Systems with Computer Applications. (3). Introduction to major concepts in business information systems. Students will be required to solve business problems utilizing computer in an on-line interactive environment. PREREQUISITE: MATH 1203. 3110. Organization and Management. (3). Management functions and basic concepts and principles of management. Includes planning, decision-making, organization, coordina tion and control, and basic elements of production manage-
ment PREREQUISITE: junior standing or permission of ment PREREQUISITE: junior
department chairman. (O506-1]
1014. Industrial Relations. (3). Role played by modern labor organization. Includes early efforts of workers to organize, factors which hampered growth of labor unions, and identififactors which hampered growth of labor unions, and identifiunions and glant labor federations. Internal policies and tactics of loc
(0516-1]
1015. Production and Operations Management I. (3). Introduction to management of production function in all types of organizations. Basic understanding of operations function necessary for systematic analysis of problems associated with
creation of goods and services. PREREQUISITE: MGMT 2711. creation
[0506-1]
1016. Computer Programming for Common Business Appllcatlons. (3). (4750). Focuses on designing, writing, and debug. ging programs in COBOL for common business applications
involving sequential files. PREREQUISITE: MGMT 2750 or involving sequential
equivalent. [O704-1]
1017. Operations 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 analysis and control, queuing methods, and simula-
tion. PREREQUISITES: MGMT 2711 and 2750 , or equivalent. [0507-1]
1018. Computer Systems and Business Appllcations. (3). Various components of typical computer configurations and their relation to typical business information subsystems. sources of information on hardware/software developments stressed. PREREQUISITE: MGMT 2750. [0703-1)
4210.6210. Personnel Administration. (3). Employeremployee relationship; job analysis; recruitment, selection training, transfer, promotion, and dismissal of employees; industrial unrest; wage plans and policies; employee health, interest, and morale; dealing with unions. PREREQUISITE:
MGMT 3110. [O506-1]
4220.6220. Collectlve Bargaining. (3). Labor-management relations from standpoint of collective bargaining contracts, emphasis on process of negotiating agreements, including procedures, tactics,
MGMT 3110 . $00516-1]$
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. (O516-1)
4240-6240. Compensation Administration. (3). Systematic 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 and admınistering wage programs are made. PREREQUISITE:
MGMT 3110. [0506-1]
4420.6420. Organizational Behavior In Business. (3). Human relations as applied to people at work in all kinds of organiza tions. Emphasis on understanding of human behavior and motivation of employees to work together in greater harmony. Includes fundamentals of organizational behavior, leadership and its development, organizational environment, and communication and group processes. PREREQUISITE: MGMT
$3110.0515-1]$ 3110. [0515-1]
1019. Motivation and Leadership. (3). Identification of theoretical and practical approaches to influencing and motivating people. Findings of numerous theorists compared and con trasted to explore relative effectiveness of various leadership styles and motivation theories from managerial view. Experi mental based learning methods used to aid diagnosis and understanding of one's own influence styles. COREQUISITE:
MGMT 4420 . (O502-1)

4510-6510. Production and Operations 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 envir onment criticall
REQUISITES: MGMT 3110,3510 . $0506-1$ ]
4511-6511. Materials Management. (3). In-depth course in planning and control of materials requirements. Order point models and systems and requirements planning techniques studied. Aggregate inventory management, distribution, inter-plant inventories, and design of materials management systems emphasızed. PREREQUISITES: MGMT 3110,3510 [0506-1]
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 taken in last or next to last semester before graduation.

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. PREREQUF-
\$ITES: MGMT 2711 and 2750 . $[0506-3]$
4755. Business Data Management. (3). Focus on (1) design ing, writing, and debugging programs written in a high-level language for common business applications involving direct access tiles; (2) selecting appropriate file organization; (3) designing data models; and (4) evaluating Commercial Data Base Management Systems. PREREQUISITES: MGMT 3750 , 3780. COREQUISITE: MGMT 4755 (O704-1)
4780.6780. Systems Design for Business Actlvities. (3). Emphasis on computer systems design for typical business applications involving automation of business activities. Estimates of computer requirements, organizational arrangement, planning total system, flow-charting, conversion problems, cost and performance evaluation. Objective to simulate middle level executive role in transition and integration of business operations into computer oriented systems. PRE-
REQUISITE. MGMT 3760 . $00705-3$ ]
4790-6790. Management Information Systems. (3). Prob lems and techniques concerning design and installation of responsive systems brought together; special attention to executive use of system's product. System approaches utiliz ing current planning and control models studied through current literature and texts in computer field. PREREQUI SITES: MGMT 2750 and one college level mathematics course; junior standing, or permission of instructor. [0506-1)
4810-6810. Internatlonal Management. (3). Fundamental knowledge of contemporary managerıal problems as present ed in toreign-influenced environment. Uniqueness of problems in planning, control, choosing foreign associates, plan location, labor, bureaucracy, legal constraints, and trade with foreign governments highlighted by texts and through discus SITES: MGMT 3110 and MKTG 3010. [0506-1]
4820. Venture Initiation Management. (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 level Business Administration Core Courses or consent of instructor. (O506-1]
4910. Management Problems. (1-3). Student carries on approved research projects in his major area under supervi sion of staff members. PREREQUISITE: senior standing and permission of department chairman. [0506-8]

Graduate courses in Management: For detarls of the graduate program see The Bulletin of The Graduate School.

## MARKETING

## ASSOCIATE PROFESSOR C. L. ABERCROMBIE, Chairman

Room 302, The College of Business Administration Bulding In addition to specific prerequisites, junfor standing or
permission of the department chalrman Is a prerequisite for
all 3000 and 4000 level courses In The Fogeiman College of
Business and Economics. Business and Economics.

## H560 MARKETING (MKTG)

3010. Princlples 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 managerial aspects of marketing practices. PREREQUISITE; junior standing, ACCT 2010, and ECON 2120; or permission of department chairman
3011. Consumer Behavlor. (3). Why consumers behave as they do. Psychological and sociological theories and principles applied to current marketing problems. PRER
MKTG 3010 or permission of instructor. [O509-1]
3012. Advertising Fundamentals. (3). Field of advertising including agencies, media, layout, copy, typography. PRE-
REQUISITE. MKTG 3010 or permission of instructor. [0604-1]
3013. Advertising Problems. (3). Case study of advertising functions, emphasizing determination of advertising strategy: planning of creative strategy; planning of media strategy: planning of creative strategy; planning of media strategy:
evaluation of advertising results and introduction to organizaevaluation of advertising resuilts and introduction to organizaMKTG 3140. (0604-1)
3014. Retalling Fundamentals. (3). Changing concepts of retailing from management viewpont. Principles that underlie successful operation of enterprises distributing products and
services to ultimate consumers. PREREQUISITE: MKTG 3010 services to ultimate consumers. PREREQUISITE: MKTG 3010 and ACCT
[0509-1]
3015. Retall Merchandising Management. (3). Buying function at retail level, emphasis on selection, timing, pricing, merchandising, and control of inventory investment. Longand short-range objectives and policies as they affect mer-
chandise investment. PREREQUISITE: MKTG 3320 . [0509-1]
3016. Sales Fundamentals. (3). Basics of personal selling. preparation, personality development, communications

Selling skills developed via sales presentations, role playing, audio-visual self-observation, and use of sales aids PREREQ-
UISITE: MKTG 3010 or permission of instructor; MKTG 3012 recommended but not required. [O509-1]
3610. Physical Distribution. (3). Physical distribution system within an organization. Emphasis on transportation, customer service, inventory, warehousing and packaging functions. PREREQUISITE: MKTG 3010.
3620. Transportation and Logistlics Systems. (3). Economic,
social and political aspects of transportation system of the social and political aspects of transportation system of the United States. Interrelationships among transportation, phys cial management as they impact flow oof raw materials and finished goods through the firm. PREREQUISITE: MKTG 3610.
3630. Traffic Management. (3). Detailed analysis of freight traffic function within firm's logistics system. Includes rate and classification systems, claim lability, shıpping document procedures, carrier selection, and other aspects associated
with organizing and operating traffic department. PREREQUIwith organizing and operating traffic department. PREREQUI-
SITE: MKTG 3610 or permission of department chairman. SITE: MK
[O510-1]
3710. Agrimarketing Methods and institutlons. (3). Government, cooperative, and private institutions affecting agrimarketing. Analysis of marketing functions as applied to marketing of supplies and services to the farm, as well as ag
products from the farm to the consumer. [0509-1]
4080. Marketing Research. (3). Research methods and procedures used in field of marketing to help solve business problems. PREREQUISITES: MGMT 2711. 2750, and 6 hours of marketing including MKTG 3010. [0509-1]
4150. Advertising Medla and Campalgns. (3). Characteristics and uses of media by companies, products lines and reasons for selection. Last part of both semesters devoted to develop-
ment of campaign for particular firm. PREREQUISITE: MKTG ment of campaig
3140 [0509-1]
4210. Industrial Marketing. (3). (3220). Marketing to the organization buyer (includes business, governmental, and organization buyer (includes business, governmental, and
institutional buyers). All aspects of the marketing mix (ininstitutional buyers). All aspects of the marketing mix (includes per sonal selling. and marketing research as
4220. Purchasing. (3). Policies for effective and efficient procurement of goods and services for today's industry. Close attention to measurement and evaluation of purchasing per formance. PREREQUISITE: MKTG 3010. [0509-1]
4410. Sales Management. (3). Sales management functions of recruting and hiring, training and assimilating, planning, controlling and motivating, and sales analysis. Role of personal selling in the promotional mix and sales objectives of management. PREREQUISITE: MKTG 3010. [0509-1]
4420. Sales Tralning. (3). One of most important staff activities within any marketıng department - trainıng of sales personnel. Designed to develop salesmanship, art of per sua
sion, into teachable subject which will apply to business world. sion, into teachable subject which will apply to business world.
How to become a sales tranner and to develop understanding How to become a sales trainer and to develop understanding
of training director's responsibilities. PREREQUISITE. MKTG of training direc
3410 . [0509-1]
4430. Sales Promotion. (3). (3430). Supplements, supports, and coordinates other two promotional functions of advertising and personal seling. Emphasis on various media associpromotional mix. PREREQUISITE: MKTG 3010. [0509-1]
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. [0513-1]
4610. Transportation and Pollcy Alternatlves. (3). Transportation policy alternatives and problems viewed in relation to their effects on carriers, transport users and general public. their effects on carriers, transport users and general public.
Evolution of public control and promotion in transportation Evolution of public control and promotion in transportation
including role of regulatory commissions. PREREQUISITE: 6 hours in transportation and logistics cour ses or permission of department chairman. (O510-1)
4620. Carrier Management. (3). Problems confrontıng managers of transportation companies. Includes carrier organization, operations, marketing strategies, finance, control, sales, labor relations, and shipper-carrier interaction. PREREQUISITE: 6 hours in transportation and logistics courses or permission of department charman. [0510-1]
4692. Seminar In Transportation and Logistics. (3). Problems in transportation and logistics. PREREQUISITE: 9 hours in transportation and logistics courses or permission of depart ment chairman. [0510-1]
4720. Cases In Agrimarketing. (3). Cases in a mature agrimarketing industry where knowiedge of past problems has useful application to marketing in the future. [0509-1]
4750. Internatlonal Agricultural 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. [0513-1]
4901. Management of Marketing Strategles. (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 . [0509-3]
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. [0509-8]
4991. Marketing Internshlp. (3). Seniors majoring in marketing may, after receiving approval of department chairman and professor concerned, obtain actual experience by working
minimum of 200 hours in approved marketing positions. May minimum of 200 hours in approved marketing positions. May
not be enrolled for more than 12 academic hours when not be enrolled for more than 12 academic hours when
enrolling for credit in work experience. [0509-5]
Graduate courses in Marketing: For details of the graduate program see The Bulletin of The Graduate School.

## OFFICE ADMINISTRATION

## PROFESSOR HERMAN F. PATTERSON,

 ChairmanRoom 300. The College of Busness Administration Building

In addition to specific prerequisites, Junior standing or all 3000 and 4000 level courses in The Fogelman College of Business and Economics.

## H570 OFFICE ADMINISTRATION (OFAD)

1210. Elementary Typewriting. (3). Use and operation of parts of typewriter, mastery of keyboard, simple business and professional letters and reports, introduction to tabulations. [0514-1]
1211. intermedlate Typewriting. (3). Typing of different styles of business letters, tabulations, and manuscripts; developing typing rate of 45 words or more per minute. [0514-1]
1212. KeyboardIng and Information Processing. (3). Emphasizes development of basic keyboarding skills necessary for efficient operation of computer terminals and related software/hardware. Information processing procedures
stressed. Computer terminals and related equipment used to stressed. Computer terminals and rells in using computers for business and personal develop sk
1213. Fundamentals of Shorthand. (3). Basic principles of Gregg shorthand - alphabet, brief forms, phrases, and abbreviations; beginning dictation and pre-transcription training. Students who have completed one or more units of shorthand in high school may not take OFAD 2120 for credit. [0514-1]
1214. Intermedlate Shorthand. (3). Review of shorthand theory, taking shorthand and transcribing accurately. PRE-
REQUISITES: OFAD 1220 and 2120 or equivalents. [0514-1]
1215. 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. [O599-I]
1216. Law Office Management. (3). Basic principles of management and necessary techniques and systems for efficient law office operation. [O599-1]
1217. Legal and Office Applications of Accounting. (3). Introduction to accounting theory; emphasis on accounting principles necessary for efficient operation of a law office. [0599-1]
1218. Legal Research and Writing i. (3). Emphasis on analysis and research of legal problems, interpretation of legal decisions and statutory
and ideas. [0599-1]
1219. Legai Research and 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. PREREQUISIIE: OFAD 2213. [0599-1]
1220. Tennessee Courts and Procedure.(3). Introduction to court structure and to Tennessee Rules of Civil Procedure which govern the system. [0599-1]
1221. Family Law. (3). Domestic relations course for the paralegal. Substantıve 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. [0599-1]
1222. Small Claims Procedures. (3). Legal and office procedures for handling small claims and collecting accounts, including office and court forms. [0599-1]
1223. Advanced Shorthand. (3). Review of shorthand principles, dally speed practice, development of transcription skill for production of mailable transcripts. PREREQUISITE: OFAD 3250 or OFAD 1220. (0514-1]
1224. Investlgation. (3). Legal assistant's role in gathering basic facts, interviewing key witnesses, searching documents, and preserving facts and evidence gathered for trial. Problems of confidentiality and of formal and informal cooperation wih opposing counsel. [0599-1]
1225. Contracts. (3). General survey of contract law, definitions and classifications of contracts, capacity of parties, legal effect of offer acceptance and consideration. Introduction to provisions of Uniform Commercial Code. [0599-1]
1226. Labor Law for Paralegals. (3). History of labor and statutory basis for American law. Grievance and arbitration, employment discrimination, and workers compensation included. [0599-1]
1227. Litigation and Evidence. (3). In-depth coverage of civil litigation in state and federal courts from client interview and ury selection through appeals and rules of evidence with regard to witnesses and exhibits. State court practice based
upon Tennessee Code of Civil Procedure but with view toward adaptability to other states. [O599-1]
1228. Advanced Typewriting. (3). Review of business letter styles, manuscripts and reports, statistical tables. Development of tyoing rate of better than 60 words per minute. PREREQUISITE: OFAD 1220. (O5I4-I)
1229. Business Communication. (3). Communication theory applied to solving of business problems. Presentation of oral and written case solutions; emphasis on letters, memorandums, short reports, and job applications. Selection and use of research sources. Effective business coordination and control through communication; communicating in political and ethical environment. PREREQUISITE: Freshman English. (O514-1) 4161-4163. Technical Dictation. (3).

Only one may be taken for credit.
PREREQUISITES: OFAD 1220, 2130.
4161. Legal: Review of Gregg shorthand theory, shortcuts, vocabulary needed to be a legal stenographer. [0514-1]
4162. Medical: Review of Gregg shorthand theory, shortcuts, vocabulary pecullar to the medical profession. [0514-1]
4163. Sclentific: Review of Gregg shorthand theory. special scientific vocabulary and terminology [0514-1]
4270. Secretarlal Typewriting and Office Machines. (3). Instruction and practice in use of secretarial office machines including executive typewriters; transcribing from voicewriting equipment; ink, spirit and offset duplication; copying ing equipment, ink, spirit and offset
machines. PREREQUISITE: OFAD 3250.
4320. Appiled Secretarial Practice. (3). Qualifications, duties and trainıng of secretary: requirements for employment; organization of work; telephone etiquette; business reference books; receptionist techniques. [0514-1]
4330. Records Management and Control. (3). Handling of incoming and outgoing mail; filing procedures; installation, administration, and control of geographic, numeric, subject and Soundex filing systems: practice in several types of filing. 0514-1)
4340. Offlce Model Simulation. (3). Realistic office-like situation for training students to be secretaries or business education teachers. Students assume role of "employee" while performing interrelated tasks in office model designed to
simulate actual office. PREREQUISITES: OFAD 4270, 4320 . simulate a
4350. Office Internship. (1-3). Laboratory and office experience for advanced students in business and office education. May be repeated for a maximum of 3 hours. PREREQUISITE: consent of department chairman. (0514-1)
4410-6410. Office Management. (3). Modern methods in office organization and management, scientific office management. office reports, office correspondence, calculating agement. office reports, office correspondence, calculating
and checking, filing, records retention, duplicating, handling mail, planning procedures, planning for equipment, office mail, planning procedures, planning for equipment, office
machines, automation, planning for office space. physical working conditions and office layout. [0514-1]
4420-6420. Word Processing Theory and Concepts. (3). Emphasizes concepts and development of techniques and basic applications of word processing. Includes word processing systems and procedures, equipment selection, layout and design or word processing centers, dictation systems and procedures, and human aspects of word processing systems. [0514-1]
4910. Problems in Office Administration. (1-3). Directed individual study in major area under supervision of staff man. [O514-8] man. [0514-8]
Graduate Courses in Office Administration - Office Management: For information concerning the graduate program, see The Bulletin of The Graduate School.

## THE COLLEGE OF COMMUNICATION AND FINE ARTS

## K100 COMMUNICATION/FINE ARTS (CCFA)

Students who wish to apply for credit for experiential learning may obtanguidelines from the Dean of the College of Communication and Fine Arts. Fees for this credit are listed in Section 3. Fees and Charges.

1900-1999. Introductory Level Experientlal Learning in (descriptive titie).
2900-2999. Intermediate Level Experlentlal Learning In (descriptive title).
3900-3999. Advanced Level Experiential Learning in (descriptive titie).

ART<br>PROFESSOR<br>LAWRENCE FIELDING EDWARDS, Chairman

Room 201, Jones Hall

Transfer students seeking advanced standing in art are required to submit a portiofio.

## 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. (1003-1)
1102. Basic 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. Devel opment of vocabulary for protessional practice encouraged through lectures, discussions, and class critique. (1002-1]) 1204. Color Fundamentals. (3). Light and color in relation to form. Mixing of colors and notation of hue, value, chroma relationships. Interaction of color: color harmony, psychology, and symbolism in a variety of medums. PREREQUISITE: gy, and symbolism
1103. Beginning Drawing. (3). Introduction to materials and techniques of basic drawing. [1002-1]
1104. Figure Structure. (3). Analysis of structure of human tigure; emphasis on contour, gesture, and volume. PREREQUISITE ART 1311. (1002-1)
1105. Worid 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. [1003.1]
1106. World Art II. (3). Continues (but does not pre-suppose) World Art I; development of visual arts from medieval period through Renaissance to present. (1003-1]
1107. Design. (3). Continued study of the elements of design, using variety of materials and methods. PRE REQUISITES: ART 1201 and 1204, or permission of instructor. (1002-1)
1108. Design. (3). Continuation of ART 2201 attention to three-dimensional problems. PREREQUISITE: ART 2201 or permussion of instructor. [1002-1]
1109. Lettering and Layout. (3). (Same as CMUS 2213). Introduction to graphic design: problems invoiving use of typography: principles and techniques of layout; and developtypograp ry: principles and techiques of layout
1110. Graphic Production. (3). (Same as CMUS 2221). Prepa ration of copy for photomechanical reproduction: printing processes, halftone and line reproduction, selection and use of type and paper. (1009-1]
1111. Interior Drafting Practices. (3). (2231). Introduction to equipment, standards and requirements of interior design drafting practices through lectures and studio space planning assignments. PREREQUISITES: ART 1201, 1311, and 1314, or
permission of instructor. [1009-1]
1112. Interior Color and Composition. (3). (2232). Applica-
tion of color theory and design-composition to specific requirements of interior design practice, through lectures and studio assignments. PREREQUISITES: ART 1204 and 2201 , or permission of instructor. [1009-1]
1113. Isometric and Perspective Drafting. (3). (2311). One and two point perspective and isometric drawing as drafting procedures applied to product design and architectural interiors. [1002-1]
1114. Drawing. (3). Advanced problems of communication through exploration of varied graphic media and methods. PREREQUISITES: ART 1311 and 1314, or permission of instructor [1099-1]
1115. Drawing. (3). Continuation of ART 2313; emphasis on personal expression. PREREQUISITE: ART 2313, or permission of instructor. (1002-1]
1116. Introduction to Printmaking. (3). Printmaking processes: relief, intaglio, planography, and stencil, focusing on relief and screenprinting
1117. Scuipture. (3). Introduction to basic materials and techniques of sculpture. (1002-1)
1118. Photography I. (3). (3224). Basic technıques and processes of black and white still photography History and aes- thetics of photography as fine art. Emphasis on per sonalized perception and seeing photographically (1011-1)
1119. 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
(1011-1)
[1011-1]
1120. Architecture and the Interior Environment. 1. (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 [1003-1]
1121. Architecture and the interior Environment II. (3). (3102). Historical development of major European periods and styles from mid-18th century into 20th century: comparisons of American developments beginning with mid-17th century [1003-1]
1122. Graphic Design. (3). Introduction to methods and maternals of graphic design, with problems which utilize visual communication. PREREQUISITE: ART 2213 and 2221 [1009-8]
1123. Graphic Design. (3). Continuation of ART 3221, offering further study in techniques of newspaper, magazine, and direct-mail layout. PREREQUISITE. ART 3221. [1009-8]
1124. Packaging and Display. (3). (Same as CMUS 3223). Package desıgning and display techniques. PREREQUISITES:
ART 2213 and 2221 . (1009 8 )
1125. Components of interiors. (3). (3231). Introduction to resources of interior furnishings industry throughlectures and studio assignments: wall and floor coverings; drapery fabrics and upholstery. Development of estimates for wall coverings
and window treatments PREREQUISITES: ART 1204 and 1311, or permission of instructor. (1009-1]
1126. Interior Design Studio 1. (3). (3232). Application of material covered in basic interior design courses to theoretcal designs for complete environments. Space planning and furnishing studies developed through studio assignments. PREREQUISITES: ART 2233, 2234, and 3233, or permission of instructor, (1009-8)
1127. Commerclal Lighting Design. (3). (4234). Comprehensive study of lighting sources and principles, color and applicaIons, including circuiting, switching, dimming systems, taskambient lighting and industry resources. The Lumen Formula and Area Method of design applied through studio assign-
ments and lectures. PREREQUISITES. ART 2233, 2234, and 3233, or permission of instructor. [1009-1]
1128. Rendering for Interlors. (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. PREREOUISITES: ART 2233 . color and tree-hand drawing. PREREQUISITES: ART
2234, and 2312, or permission of instructor. (1009-1)
1129. Interior Construction Drafting. (3). (4551). Principles of building construction and their application through draftings for both re sidential and commercial installations Building methods and materials studied through lectures and studio
assignments. PREREQUISITE: ART 3234 or permission of assignments. PRERE
instructor. [1009-1]
1130. Interior Cabinetwork Drafting. (3). (4552). Principles of cabinetmaking, wood joints, laminating, contouring and hardware required for their application to detail draftings for both commercial and residential custom design. Dratting procedures studied through lectures and studio assignments. PREREQUISITE: ART 3237 or permission of instructor. (1009-1)
1131. A Perspective on Contemporary Design Concepts. (3). Studio course which includes study of theories and 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. [1009-1]
1132. Painting. (3). Preliminary course in theory and practice of oil painting. [1002-8]
1133. Palnting. (3). Continuation of ART 3331; attention to essentials of still-life, landscape, and portrat painting. 1002-8]
1134. Intagilo. (3). In-depth study of metal plate intagio printmaking processes: engraving, drypoint, etching, aqua-
tint. Introduction to color intagiog and mixed media including tint. Introduction to color intaglio and mixed media including SITE: ART 2351 or permission of instructor.
1135. Ltthography (3). In-depth study of stone lithography. Introduction to aluminum plate litho, color litho, and mixed REQUISITE: ART 2351 or permission of instructor
1136. Art Experiences for Elementary Teachers. (3). Introduction to development of skills and methods in school art program: emphasis on materials and ideas important to children's art expression and growth. [0831-1]
1137. Materlals and Methods in Teaching Elementary School Art. (3). Aid to future teachers in understanding child art, encouraging art expression, and preparing art teaching mate-
nals for children. PREREQUISITES: ART 1101 (or 2101 and 2102) and 3411. [O831-1]
1138. Art Experiences for Secondary School Art Teachers. (3). Art crafts in secondary school art program; work with equipment. supplies, processes. and ideas in art craft pro gram. PREREQUISITE: ART 2202 or 3411 , or permission of instructor (0831-1)
1139. Sculpture. (3). Problems of sculptural form as expressed in metal, wood, and related materials. (1002-8] 3512. Sculpture. (3). Continuation of ART 3511; emphasis on techniques. (1002-8)
1140. Ceramics. (3). Introduction to clay and ceramic process. Emphasis on thoughtful, purposeful exploration of medium.
1141. Ceramics. (3). Continuation of ART 3523. Some consideration to fundamental historical and aesthetic aspects pecuuar to ceramics as a studio medium. [1009-8]
1142. Packaging and Display. (3). Contınuation of ART 3223: attention to trademark designs. package rendering and practical displays. PREREQUISITE: ART 3223. (1009-8)
1143. 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 traditions. PREREQUISITE: ART 2702, junior standing, or permission of instructor. [1011-1]
4121-6121. Anclent Art of the Near East. (3). Architecture, sculpture, painting and minor arts in Egypt and Ancient Near East. ( 1003 -1)
4122.6122. Greek and Roman Art. (3). Architecture, sculpture, and painting from Aegean art to the fall of the Roman Empire. (1003-1)
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. [1003-1]
4134-6134. Romanesque and Gothic Art. (3). Development of architecture, sculpture, and painting from Carolinglan (ProtoRomanesque) Period through Gothic Period. (1003-1)
4141-6141. Art of the Early Renalssance in Italy. (3). Architec
ture, sculpture and pannting of Italy, 1300-1510. (1003-1]
4142-6142. Northern Renalssance Art. (3). Fifteenth century art in Northern Europe, emphasis on panel painting, manuscript illumination and printmaking. [1003-1]
4143-6143. Art of the High Renaissance in Italy. (3). Sixteenth century art in Italy; hughlights works of Michelangelo, Raphael, Tittan, and the Mannerists. [1003-1]
4146-6146. Baroque Art. (3). Architecture, sculpture, and painting produced in Europe during 17th Century. [1003-1]
4151-6151. NIneteenth-Century Art. (3). Art movements of nineteenth century from Neo-Classicism to Impressionism [1003-1]
4154-6154. Modern Art. (3). Major developments in European painting and sculpture from 1890 's until World War II: includes Fauvism, Cubism, and Surrealism. (1003-1)
4156-6156. Art Since 1945. (3). Major art movements and contemporary schools of criticism from World War II to present. Major trends examined include Abstract Expressionism. Pop Art and Earth Art. [1003-1).
4158-6158. Modern Architecture. (3). Survey of 19 th century styles, 20th century master, and contemporary developments in architecture; includes historic preservation.
[1003-1]
4162-6162. Spanish Colonlal Art. (3). The arts in South America, Mexico, and United States during period of Spanish Rule. Survey of Baroque art in the Americas. (1003-1)
4163-6163. Pre-Columblan Art. (3). Ancient art of Mexico, Central America and South America from about 1000 B.C. to European contact. [1003-1]
4165-6165. Art of the American Indlan. (3). Arts of North American Indians from pre-history to present. [1003-1]
4167-6167. Art In America I. (3). American art: architecture. sculpture, painting, and minor arts within continental United States from prehistoric times to Civil War. (1003-1)
4168-6168. Art In Amerlca II. (3). Architecture, sculpture painting and minor arts in continental United States from Civil War period to present. [1003-1]
4181-6181. Primitive Art. (3). Art of primitive Negro of Atrica, aboriginal peoples of Oceania, and American Indian. (1003-1)
4197-6197. Toplcs in Art History. (1-6). May be repeated when topic varies to a maximum of 9 hours. [1003-9]
4201-6201. Advanced Design - Plastics. (3). Two-dimensional and three-dimensional design in plastics employing basic methods of casting resins and thermoheating processes using sheet, rod, and tube plastics. [1009-8]
4202-6202. Advanced Design - Plastics. (3). Further devel opment in creative plastics design through thermoheating
process of vacuum forming, blow forming, and resin casting process of vacuum
processes. (1009-8]
4205-6205. Advanced Design - Continuous Pattern Processes. (3). Emphasis on both theoretical and practical approaches to continuous pattern processes using various
media and processes techniques. PREREQUISITES: ART media and processes techniques.
$1201,1204,2201,2202 .[1009-8]$
4206-6206. Advanced Design - Continuous Pattern Processes. (3). Continuation of ART 4205; advanced work in constructed pattern processes. PREREQUISITE: ART 4205. [1009-8]
4207-6207. Advanced Color. (3). Indepth study of contempoary color concepts for designers and practicing artists Personal exploration of phenomena of color perception in relation to color organization according to individual student's professional goals. (1009-8)

4208-6208. Advanced Design - Speclai 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 and serving as guest/resi dent/or adjunct faculty on rotational basis, when feasible
PREREQUISITE: ART 3240 and/or permission of instructor [1009-9]
4221-6221. Graphic Design. (3). Advanced problems in fields of adver tising and merchandising design. PF
3222 or permission of instructor (1009-8)
4222-6222. Graphic Design. (3). Study and execution of graphics for television, incorporating animation and design for
the video environment. PREREQUISITE: ART 4221 or permisthe video environment. PRE
sion of instructor. (1009-8)
4237-6237. Interior Design Studio. (3). (4231). Advanced interior design. Comprehensive studio assignments including space planning, construction, lighting and complete furnishings specifications with samples, concluding with class pre-
sentation by student designer. PREREQUISITES: ART 3234 3235,3236 , and 3237 or permission of instructor. [1009-81 4238-6238. Interior Design Studio. (3). (4232). Further advanced studio assignments in commercial and residential
interior design, with class presentations. PREREQUISITES: interior design, with class presentations. PREREQUISITES:
ART 3238,4237,4239, or permission of instructor. (1009-8] 4239-6239. (4235). interior Design Business Practices. (3). Study and application of principles, procedures and business practices of interior design. Contracts, letters of agreement, oped in conjunction with lectures and studio assignments. PREREQUISITE: ART $\mathbf{3 2 3 4}$ or permission of instructor. [1009-1]
4240-6240. (4236). Interior Design internship. (3). Approved on-the-job apprenticeship experience with cooperating employer in an interior design firm's studio, retail store or designer showroom handling products of interior furnishings industry. Student's training evaluated by employer and interi-
or design faculty. PREREQUISITE: ART 4239 or permission of or design faculty. PR
instructor. [1009-5]
4321-6321. Drawing and Painting. (3). Advanced drawing and painting methods; emphasis on transparent watercolor. PRE.
4322-6322. Drawing and Painting. (3). Continuation of ART
4321: attention to various mixed media. PREREOUISITES: $4321_{\text {; attention to various mixed media. PREREQUISITES }}^{\text {ART } 2313 \text { and } 4321 \text { or permission of instructor. [1002-8] }}$
4331-6331. Painting. (3). Advanced problems in oil painting, presupposing that student has mastered basic techniques and is ready for a more experimental approach to subject. PRE
REQUISITES. ART 3331 and 3332 or permission of instructor [1002-8]
4332-6332. Painting. (3). Continuation of ART 4331; emphasis on development of personal style. PREREQUISITES: ART
3331,3332 , and 4331 , or permission of instructor. [1002-8] 4341-6341. Iliustration. (3). Survey of many areas requiring services of illustrator and including preparation of book, magazine, advertising, and television illustrations. [1009-8]
4342-6342. IIlustration. (3). Continuation of ART 4341; analysis of fine art techniques of drawing and painting as they apply to commer cial illustration. (1009-8]
4351-6351. Advanced Printmaking I. (3). Specialization in one or two printmaking media with emphasis on development of personal imagery and technical skills PREREQUISITES: 2351. 351 or 3352, or permission of instructor

4352-6352. Advanced Printmaking II. (3). Advanced work in one or two printmaking media with contınuued development of personal imagery and advanced technical skills. PREREQUI-
SITES: ART 2351,3351 or 3352, and 4351; or permission of SITES: AR1
instructor
4380-6380. Museology. (3). (Same as ANTH 4380). History and development of museums; mandate and variety of institutions; significant research facilities; historical and contemporary collections, and educational roles of museums in contemporary society. [2299-1]
4381-6381. Art Curatoriai Techniques. (3). Curatorial responsibilities and functions: receiving and shipping meth-
ods, registration, physical and environmental security, ods, registration, physical and environmental security.
research, conservation, and study of art market and publicaresearch, conse
tions. [1099-1]
4382-6382. Museum Operation. (3). (Same as ANTH 4382). Basic aspects of museum organization, management, exhibit planning and execution, and maintenance of collections and records. [2299-1]
4421. Materiais and Methods in Teaching Secondary School Art. (3). (Same as SCED 3321). Understanding adolescent art expression and preparing art teaching materials for second-
ary school art program. PREREQUISITES: ART 3421 and ary school art program. PREREQUISITES
3523 , or permission of instructor. [O831-1]
4424-6424. Woven and Constructed Fiber Design. (3). Creative design of textile construction, including experimental and multi-harness weaving, rug-making techniques, macrame, applique, stitchery. crochet. knitting, and related processes. [1009-8]
4425-6425. Woven and Constructed Fiber Design. (3). Continuation of ART 4424, more advanced work in constructed fiber design. [1009-8]
4511-6511. Scuipture. (3). Advanced work in various sculp-
tural media. PREREQUISITES: ART 2511, 3511, and 3512 or tural media. PREREQUISITES: ART 2511, 3511, and 3512 or permission of instructor. (1002-8]
4512-6512. Scuipture. (3). Continuation of 4511: emphasıs on personal expression. PREREQUISITE: ART 4511 or permus sion of instructor. (1002-8)
4521-6521. Ceramics. (3). Advanced studies in ceramic process and technique. Concentration on development of personal attıtudes toward work [1009-8]
4522-6522. Ceramics. (3). Technical competence and the production of ceramic objects reflective of genuinely personal involvement. [1009-8]

4531-6531. Jeweiry. (3). Jewelry-making, emphasis on materials and equipment. Nature and possibilities of metals, stones
and other materials in terms of good jeweiry design. Basic and other materials in terms of good jeweiry design. Basic
projects in enameling, soldering, pickling, buffing, and other projects in enameling,
4532-6532. Jeweiry. (3). Second course in jeweiry-making and metal-work. Study and practice in good design. Work in lost wax casting, champleve, cloissonne, and combinations of materials. [1009-8]
4611. Senior Problems. (3). Original research in student's area of concentration, extent of the project to be approved by art faculty. [1099-8]
4621-6621. Workshop in Art. (3). Specific art problems as they apply to individual student; emphasis on basic art concepts and creative experience. PREREQUISITE: permission of instructor. (1099-8)
4622-6622. Workshop in Art. (3). Continuation of ART 4621, providing study of problems appropriate to need of individual
student. PREREQUISITE: permission of instructor. [1099-8]
4630-6630. Topics in Studio Art. (1-3). May be repeated when topic varies to a maximum of 9 hours. (1002-9]
4635-6635. Topics in Art Education. (1-3). May be repeated when topic varies to a maximum of 9 hours. (0831-9]
4641-6641. Study and Travei in Art (3 or 6). Travel to mportant art areas of world and specialized study under direction of faculty member of Department of Art. [1003-8]
4701-6701. Coior Photography. (3). Exploration of photographic perception in color. Survey of history and aesthetics of color photography. Techniques of color photography, standing, or permission of instructor. [1011-1]
4702-6702. Photographic Materiais and 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 technique. PREREQUISITE: ART 2702 or permission of instructor [1011-8]
4711. Advanced Photography Seminar. (1-3). Supervised problems course. Emphasis on student's finding personal direction within own work, pursuing that direction, and dis6 hours. PREREQUISITES ART 3701 or permission of instrucor [1011-8]
4712. Photography Portfoilo Seminar. (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 hours. PRE-
REQUISITE: ART 4711 or permission of instructor. (1011-8) 4721-6721. History of Photography. (3). Visual and technical developments; critical and aesthetic consideration of the photographic image. [1003-1]

## JOURNALISM

ASSOCIATE PROFESSOR GERALD C. STONE, Chairman

Room 300, Meeman Journathsm Building

## K260 JOURNALISM (JOUR)

1700. Survey of Mass Communication. (3). (1011, 1012). Social background scope, functions, and organization of mod ern communication media; attention to all major mass communication media. Philosophy and goals of modern journal ism; its impact on governmental, social and economic systems. NOTE: Students who have recerved credit for JOUR 1011 OR 1012 may not recerve credit for JOUR 1700 . [0601-1]
1701. Eiementary News Writing. (3). (2111). News story structure and factors that determine value of news, with consideration given to both theoretical and practical aspects of news gathering and reporting. (0602-1]
1702. Editing I. (3). (3112). Practices in headline writing. editing, and newspaper makeup and study of contemporary editing problems. (0602-1)
1703. The Magazine. (3). (3116). Historical backgrounds. contents, purposes, and readership of general magazines business and industrial papers and specialized journals. [0602-1]
1704. Survey of Advertising. (3). Exploration of creative function of advertising. emphasis on role of media. (0602-1) 2520. 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. (O699-1]
1705. Typography. (3) (2211). Study and effective use of type, composition, engraving, stereotyping, printing and graphic design in both black-and-white and color. (0602-1)
1706. News Feature Writing. (3). Fundamentals of non-fiction leature writing for newspapers, magazines, company publica tions and broadcast news presentations. Story ideas, personality profiles, humor articles and complex, news related features developed. (0602-1)
1707. Editing II. (2). (3113). Emphasis on practical editing applications. Students are charged with production of The
1708. Magazine Articie Writing. (3) (3121, 3122). Introduction to free-lance writing techniques. Preparing queries and
articles for submission. Generating and researching ideas articles for submission. Generating and researching ideas
appropriate for the magazine market. NOTE: Students who appropriate for the magazine market. NOTE: Students who
have recerved credit for JOUR 3121 OR 3122 may not receive have recerved credit for JOUR 31
credit for JOUR 3205. [O602-1]
1709. Magazine Editing and 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 produc writing, pictorial copy layout, staff organization, and pres
tion processes. PREREQUISITE: JOUR 2200. [0602-1]
1710. Advertising Layout. (3) (3210). Basic techniques in laying out printed advertisement; introduction to use of adver tising mat service in layout. (0602-1)
1711. Advertising Copy Writing. (3). (3221). Principles 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. to practice in writing copy and preparing rough layouts. [0602-1]
1712. Advertising Saies. (3). (3222). Practical experience in preparatıon and selling of completed advertisements; student will service own clients throughout semester, using The Helmsman as a space medium (O604-1)
1713. introduction to Public Reiations. (3). (4222). Development. scope, and modern role of public relations, emphasis on case studies, lectures, and experimentat
relations tools and practices. [0699:1]
1714. Pubilc Reiations Techniques. (3). (4232). Booklet production, writing news releases, preparing visuals for speeches, producing slide presentations, writing annual reports, planning and budgeting, and other tasks customarily assigned to public relations practitioner. PREREQUISITE: JOUR 3400.
1715. Advanced Press Photography. (3). (4008). Skills of visual communication. Assignments designed for relevance to covering daily news. Emphasis on picture stories, including text and layout. PRE REQUISITE: JOUR 2520 or permission of
instructor. (O699-1)
1716. Photojournalism Editing. (3). (3011). Emphasis on picture use and management in daily press. Potential and limitations of photography as an editorial tool. Open to upper-
level fournalism students who do not have a concentration in photography. [O699-1]
1717. Radio and Teievision News Writing and Editing. (3). (3331). Processing of news for radio and television; attention SITE present-day style used by electronic media. PREREQUI-
1718. Radio and Teievision Reporting of Speciai Events. (3).
(3333). Preparation and presentation of special programs such as news, sports, interviews, documentaries. PREREQUISITE: JOUR 3625./0603-1]
1719. History of Journalism. (3). (4005). Origin and development of American journalism; students who enroll should have
1720. Reporting. (3). (2112). Gathering and writing news of he University community with assignments arranged on The Helmsman. Three lecture, one laboratory hour per week PREREQUISITE- JOUR 2121. [0602-1]
1721. Journailsm Seminar. (1). Weekly presentation by a media professional on a topic in his field of journalistic experise. Students prepare for discussion sessions through assigned readings May be repeated for a maximum of 2 hours
1722. Reporting Pubiic issues. (3). (4245). Analyzing and writing news reports about government, courts, energy, economy, taxes, education, environment, medicine and science. need to be informed. Emphasis on topics vital to large urban society. PREREQUISITE JOUR 3720. (0601]
1723. Writing Internship. (2). (4002, 4003). Work in practical assignments at local media under supervision of qualified practitioners. NOTE: Students who have recerved credit for JOUR 4002. 4003, 4330, or 4430 may not recerve credit for JOUR 4130 PREREQUISITE: permission of instructor. [0601-5]
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 budgets for tapes, storyboards, and preparation of detailed budge
product or service. PREREQUISITE: JOUR 3322, 3324 product or
1725. Advertising Internship. (2). (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 not
receive credit for JOUR 4330 . PREREQUISITES: JOUR 3322 , receive credit for JOUR 4330. PREREQUISITE
3324 and permission of instructor. [O601-5]
4400-6400. Institutional Media Relations. (3). Interpreting goals, needs, and achievements of institutions (primarily educational) to their publics. (O601-1)
1726. Pubiic Reiations Case Probiems. (3). Case studies and ypical public relations problems. Planning and preparation of communications materials for various media; application of
public relations techniques. PREREQUISITE JOUR 3421 . public re
[0699-1]
1727. Pubiic Relations internship. (2). (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 evaluation of
results. NOTE. Students who have received credit for JOUR 4130 or 4330 may not receave credit for JOUR 4430 PREREQ UISITE: JOUR 4423 and permission of instructor. [O699-5]
1728. Electronic Reporting. (3). (3334). Theory and practice of gathering and presentingnews in radio and television Focus on operational processes in commercial electronic media as they relate to news procedures and on practical experience SITE: JOUR 3625 (0602-1]
1729. Mass Communication Law. (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 broadcasting. [0601-1]
1730. Current Trends in Journalism. (3). (3332). Advanced study of recent, critical problems faced by the mass media and its practitioners. Emphasis on interaction among media with look toward future commmunication technologies. [0601-1]. 4704-6704. Theories of Communication. (3). (Same as
COMM 4704). Comparison of theories offered to explain COMM 4704). Comparison of theories offered to explain from Stumulus-Response Theory to Agenda-Setting Theory. [0601-1]
1731. Newsroom Management. (3). (4030). Policy and regulatory aspects of news management; personnel and technical factors governing news production and programming: analysis of news operations. (0603-1)
1732. Journallsm Professional Ethics. (3). Classical approaches 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 with employers, local publics and the larger society which depends on a free and responsible press. [0601-1]
4726-6726. Journallsm Research Methods. (3). (4175-6175). Familiarization with content analysis, survey research, data analysis, and field studies as practiced by reporters, editors, and public relations decision makers Modern research techniques and class project using computer analysis. PREREQUISITE: JOUR 2121 or permission of instructor. [0602-1]
1733. Directed Studles in Journalism. (1-3). Independent study and research, or practicum, or project under supervi-
sion. PREREQUISITE: Permission of instructor. NOTE. May be sion. PREREQUISITE: Permission of instructor. NOTE. May be
repeated for a maximum of 3 hours credit during undergraduate education. [0602-5]

## MUSIC

PROFESSOR DAVID R. WILLIAMS, Chairman

## Room 123B. Music Building

APPLICATION AND AUDITION PROCEDURES: Speclal appll. catlon and audition procedures are required. See the descrip.
tlon of the muslc programs in section 7, Colleges and Degree tlon of the $m$
Programs.
PIANO PROFICIENCY: All undergraduate music students must complete a piano placement examination prior to enroiling in applied music courses in the Department of Music. All music majors must pass the piano proficiency examınation before majors must pass the piano profnciency examination betore
the beginning of the senior year. This may be done in either of 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 two ways: (1) as part of the class work in MUSE 2108, Class
Piano, or (2) by passing without credit the piano proficiency Piano, or (2) by passing without credit the plano 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 prano 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.

## K307 MUSIC THEORY AND COMPOSITION (MUTC)

Placement in the Music Theory sequence for undergraduates will be determined through examination.
1001. Basic Music Theory. (2). For students who plan to major in music but do not meet minimum standards for MUTC 1008 Not allowable as credit toward the satisfaction of require. ments for the major or minor. Two laboratory hours per week. [1004-1]
1002. Aural Music Theory I. (1). Sight-singing and ear-training techniques using material studied in MUTC 1008; keyboard harmony Iwo laboratory hours per week PREREQUISITE MUTC 1001. (1004-1)
1003. Aural Music Theory II. (1). More difficult unison and easier two-, three-, and four-part materials. Two laboratory hours per week. PREREQUISITE: permission of the instructor. [1004-1]
1008. Muslc Theory I. (3). (1004). Basic notation, scales, intervals, triads, key signatures; analysis and exploration of technical material and written exercises in historical areas of
plainchant through late 16 th century. COREQUISITE MUTC plainchant through late 16 th century. COREQUISITE MUT
1010. PREREQUISITE. Theory placement exam. [1004-1]
1009. Music Theory II. (3). (1005). Four part structures, all seventh chords, chorale harmonization figured bass realization; analysis and written exercises from historical area of early 17 th century through J.S. Bach. COREQUISITE: MUTC
1011. PREREQUISITE: MUTC 1008,1010 . 1004 -1] 1011. PREREQUISITE: MUTC 1008, 1010. [1004-1]
1010. Aural Theory I. (1). (1004). Beginning ear training: scales intervals, triads, simple melodic lines and simple two part examples; sightsinging of combination of tonal and model materials. COREQUISITE: MUTC 1008 PREREQUISITE: Theory placement exam. (S / U only). (1004-1)
1011. Aural Theory II. (1). (1005). Ear training involving triads in sequence, two part examples, modulatory melodies; sightsinging of 17th and 18 th century melodic examples. COREQUI-
SITE: MUTC 1009. PREREQUISITE MUTC 1010, 1008. (S/U SITE: MUTC 1009
only). (1004-1]
2008. Music Theory III. (3). (1006). Continuation of four part structure, part writing and figured bass; expanded harmonic materials from ninth chords through chor dal mutation; formal
and chordal analysis from Bach through mid-19th century.
COREQUISITE MUTC 2010. PREREQUISITE MUTC 1009. 1011. (1004-1]
2010. Aural Theory III. (1). (1006). Ear trainıng involving expanded harmonic materials, modulatory melodies, two part examples with modulation; sightsinging of 18 th and 19 th century melodic examples. COREQUISITE: MUTC 2008. PREREQUISITE. MUTC 1011, 1009 ( $\mathrm{S} / \mathrm{U}$ only). [1004-1]
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
$\$ 30.00$ per semester [1004-1]
2502. Composition. (2). Works for piano, voice, chorus, and small ensembles; study of style and analysis of works from music literature. May be repeated for additional credit. PRE. REQUISITE: MUTC 2501 or permission of instructor. NOTE: Composition is taught as applied music. Students receive equivalent of one hour lesson per week. Fee for this instruction is $\$ 60$ per semester. [1004-1]
2511. Introductory Electronic Music. (2). Emphasis on basic techniques of electronic music composition through work in tape manipulation, synthesizer operation, musique concrete, MUTC 2008 or permission of instructor. FEE \$60. [1004-8]
3008. Muslc 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 20 th
century. COREQUISITE: MUTC 3009. PREREQUISITE: MUTC century COREQUISITE
2008,2010 . $1004-1$ ]
3009. Aural Theory IV. (1). (3001). Ear training involving expanded 19th century harmonic considerations, 20 th century chromaticism and pandiatomicism, two part examples
from both 19 th and 20th centuries; sightsinging emphasizing melodies of 20th century. COREQUISITE: MUTC 3008. PRE. REQUISITE: MUTC 2010, 2008. (S/U only). [1004-1]
3010. Aural Theory V. (1). (3002). Aural exploration of basic forms, cadences amd styles of music; detalled aural analysis of modulatory elements within a piece. PREREQUISITE: MUTC 3009, 3008. [1004-1]
3101. Orchestration. (2). (3002). Basic study of instruments of orchestra and band; terminology and techniques pertaining to that study: practical application by scoring for small and large instrumental combinations. PREREQUISITE: MUTC
3008,3009 , or permission of instructor [1004-1] 3008, 3009, or permission of instructor. (1004-1]
3102. Advanced Musical Analysis. (3). (3003). Theoretical
analysis of large-scale compositions from the Renaissance to analysis of large-scale compositions trom the Renaissance
the present. PREREQUISITE: MUTC 3101, 3010. [1004-1]
3103. Advanced Orchestration. (3). Arranging of piano, organ, and choral compositions for full orchestra and chamber ensembles. PREREQUISITE: MUTC 3101. (1004-1]
3105. Slxteenth Century Counterpoint. (2). Modal contra-
puntal technique of 16 th century. writing in two and three puntal technique of 16 th century, writing in two and three parts in style of Palestrina and Lassus analysis. PREREQUI-
SITE MUTC 2008. [1004-1]
3106. Elghteenth Century Counterpoint. (2). Contrapuntal techniques of 18th century: writing in two or four parts canon
and fugue. PREREQUISITE: MUTC 2008. [1004-1]
and fugue. PREREQUISITE: MUTC 2008. 11004-1)
3108. Twentleth Century Counterpoint. (2). Contrapuntal techniques of 20th century; analysis of serial techniques in
contemporary style. PREREQUISITE: MUTC 3105 or 3106. [1004-1]
4101. Compositional Techniques of the Twentleth Century. (3). Writing course employing harmonic and contrapuntal
techniques and devices from Debussy to present. [1004-1]
4104. Pedagogy of Theory. (3). Classroom procedures. Demonstrations by students and instructor in teaching rudiments of music, stylistic and structural analy
PREREQUISITE-MUTC 3102. [1004-1]
4201. Studles In Muslc Theory and Composition. (1-3). Directed individual or class instruction in selected areas of music theory amd composition chosen in consultation with
instructor. May be repeated for credit to maximum of 6 instructor. May be repeated for credit to maximum of 6 semester
4202-6202. Seminar: Music Theory and Analysis. (3).
Advanced course in theory, counterpoint, and analysis of Advanced course in theory, counterpoint, and analysis of literature. Contrapuntal and harmonic techniques. Research; theoretical problems from pedagogical point of view; writing in
strict and free styles. Recommended as review course for graduate students. PREREQUISITE: permission of instructor. [1004-1]
4203. Critical Studles In Music. (3). Directed research in music theory, history and liter ature; study in depth related to major concentration area; required of theory majors; term paper. [1004-8]
4501-6501. 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 repeated for additional credit. PREREQUI-
SITE; recommendation of upper division examining committee NOTE: Composition taught as applied music. Students receive equivalent of one hour lesson per week. Fee for this instruction is $\$ 60.00$ per semester. [1004-8]
4502. Composition for Non-Composition Majors. (3). Class instruction in free composition for students not majoring in composition. Practical experience in idea generation, form, development, and instrumentation. PREREQUISITE: MUTC receive equivalent of one half-hour lesson per week. Fee for receive equivalent of one half-hour lesson per
this instruction is $\$ 30$ per semester. (1004-8]
4511. Intermedlate Electronic Music. (2). Emphasis on basic techniques through work in tape manipulation, study of histoearned from this course may be utilized as composition credit
toward composition concentration. PREREQUISITE: for music majors only or with permission of instructor. FEE: $\$ 60.00$ [1004-8]
4512. Advanced Electronic Music. (2). Continuation of MUTC 4511. Emphasis on individual compositional projects. May be repeated for credit, but only two hours credit earned may be FEE: $\$ 60 \cdot[1004-8]$
4599. Senior Composition Recital. (1). (1004-8)

## K304 MUSIC HISTORY, LITERATURE, AND APPRECIATION (MUHL)

1101. Music Appreclation. (3). Introduction to music through study of its literature and history: significant compositions oriented to their proper social, cultural, economic and poistiing and enjoyment of music. Open without prerequisite to non-music majors. Attendance at some concerts sponsored by Music Department may be required. [1006-1]
1102. Jazz Appreclation. (3). Introduction to jazz; emphasis on nature and processes of jazz and particuarly on its historical background and development in United States. Open to non-music majors. [1006-1)
1103. History of Music to 1700. (3). Development of significant musical styles; attention to individual contribution of
major composers. PREREQUISITE: MUTC 2008 or permission of instructor. [1006-1]
1104. History of Musle Since 1700. (3). Continuation of MUHL 3301. PREREQUISITE: MUTC 2008 or permission of instructor. [1006-1]
1105. Plano Repertory. (3). Survey of stringed keyboard repertory from Bach and his contemporaries to the present. Representative works analyzed in regard to historical, stylis tic, formal and aesthetic features. PREREQUISITE: Junion
standing in music or permission of instructor. [1004-8]
1106. Survey of Chamber Muslc for Plano. (2). Study of development of works for piano and one other instrument. development of works tor piano and one other instrument.
piano trios, piano quartets and quintets; stylistic analysis of piano trios, piano quartets and quintets; stylistic analysis of
works from classic, romantic, impressionistic, early 20th works from classic, romantic, impressionistic, early 20 th
century, and avant-grade repertory. PREREQUISITE: permission of instructor. [1004-8]

4005-6005. History and Literature of the Organ I. (3). Literature for the organ and its effect on and interaction with organ
design. To 1700 .

## 4006-6006. History and Literature of the Organ II. (3). 1700

 to the present.4251-6251. Colleglum Musicum: Laboratory In Music Histoy. (3). Use of Iute, viols, recorders, other early musical instruments and voice in performance of early music; primary sources (facsimiles of early prints, MSS, and works on performance practice) will be used in preparation of performances. May be repeated for credit, but not for the purpose of improving the grade originally given. [1006-1]
4407-6407. The Opera and Music Drama. (3). Survey of opera before Richard Wagner; Wagner's music dramas and operas of his contemporaries; dramatic and musical significance of MUHL 3301, 3302; or permission of instructor. [1004-1]
4408-6408. Style Perlods In Music History. (3). Music and historical data from various periods of Western, musical history. M
[1006-1]

OO1 MEDIEVAL MUSIC
OO2 RENAISSANCE MUSIC
003 BAROQUE MUSIC
004 CLASSIC MUSIC
005 ROMANTIC MUSIC
006 20th CENTURY MUSIC
4601. Comparatlve 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. (1004-9]
4800-6800. World Musical Styles. (3). Musical styles and role of music performance in preliterate and folk societies
throughout world. [1006-1]
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 ous musical styles ranging from 19 th century minstrelsy to ous musical styles ranging from 19 th century minstrelsy to
roots of rock and roll. Emphasis on southern Anglo-American roots of rock and roil. Emphasis on southern Anglo-A
and Afro-A
4802-6802. Toplcs In American Folk and Popular Music. (3). Characteristics and development of a particular form of
American folk or popular music. Topics include the following: [1006-1]

001 AFRO-AMERICAN FOLK MUSIC
002 BLUES
003 AMERICAN FOLK SPIRITUAL AND GOSPEL MUSIC
004 ANGLO-AMERICAN FOLK MUSIC
005 HISTORY OF COUNTRY AND WESTERN MUSIC
006 HISTORY OF ROCK AND ROLL MUSIC
007 HISTORY OF JAZZ
008 HISTORY OF ROCK/POP
009 MEMPHIS MUSIC
010 FOLK / POP MUSIC OF THE
MID-SOUTH

K316 SACRED MUSIC (MUSA)
4001-6001. Judeo-Christlan Music. (3). History of church music from temple to 1000 AD . Considerable emphasis on Hebrew music, its use as related in scripture and the formand use of service music inpresent c
and testival services. [1006-1]
4101. Service Playing. (3). Practical keyboard work in performance of basic music used in liturgical and non-liturgical services. Includes keyboard harmony, modulation and sımple
improvisation. NOTE: Taught as applied music. Students improvisation. NOTE: Taught as applied music. Students
receive equivalent of 2 halt-hour lessons per week. Fee for this receive equivalent of
instruction is $\$ 60.00$ per semester.
4103. Basic Organ Improvisation. (2). Practical operational
tacility in improvised works in trio style chorale or hymn-tune facility in improvised works in trio style, chorale or hymn-tune preludes in pattern styles. and embellished melodic lines with
parmonic accompanıments. Emphasis on keyboard harmony and reading from tigured basses. PREREQUISITE: permission of instructor. [1004-8]
4104-6104. Sacred Muslc In History and Practice I. (3). Survey of Jewish and Christian sacred music
of styles, traditions, and current practices.
4105-6105. Sacred Music In History and Practice II. (3).
4801-6801. Studles In Sacred Music. (1-3). Directed individution with instructor. May be repeated for credit with permission of department chairman. May not exceed 6 hours credit. [2303-8]

## K318 APPLIED MUSIC (MUAP)

Applied music is offered at three levels: (1) major group instruction. (2) lower division, and (3) upper division. Lessons instructors. Since the number of students who can be accepted is limited, it is advisable that the student audition as early as possible to be assured a place with the requested teacher.
Practice facilities are provided without charge, but there are 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 for applied instruction where staff time is available. If accepted for applied
instruction, non-music majors must simultaneously enroll and actively participate in a large ensemble sponsored by the Department of Music. For additional details, see LARGE MUSIingizions in this section of the Bulletin.
All jazz and studio bass majors must simultaneously be
enrolled in classical bass. MUAP 1541 , for a total of six enroled in classical bass, Me of proticiency 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 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
stass consultation with the jazz and studio faculty. In the event a 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 unth such time as requireclassical guitar as an elective or unthl such time as require-
ments 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 $\$ 30.00$ per semester for each half-hour lesson. Students registering for one (1) semester
hour credit will receive one half-hour lesson per week. AH hour credit will receive one half-hour lesson per week. All
others will receive one hour lesson per week regardless of credit hours.
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 Building during the pre-college counseling, advising and registration periods before each semester. Auditions may be scheduled in the Music Office, Room 123, Music Bullding, 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, commen-
surate with his level of performance. Additional credit may be surate with his level of performance. Additional credit may be
earned at the lower division and upper division level Students earned at the lower division and upper division level. Students
earning more than two credits per semester will be assigned earning more than two credits per semester will be assigned
additional practice and will be expected to perform at a higher additional practice and will be expected to perform at a higher
level than those students registered for fewer credits. Grades level than those students registered for tewer credits. Grades
are awarded on the same basis and have the same signiticance are awarded on the s.
EXAMINATIONS: For an examınation 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
set aside for this purpose near the end of each semester 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. (1/2). This course is required of all music majors for eight semesters and of all music education students for seven semesters. Attendance at 14 recitals per
semester required. ( $\mathrm{S} / \mathrm{U}$ only). (1004-1] 4002-6002. Song Repertory I. (2). Survey of Italian repertory
from 17 th century to present. Comprehensive study of music from 17 th century to present. Comprehensive study of musi
and poetry of the German lied. The Cycle. Recital planning. 4003.6003. Song Repertory II. (2). Development of French melode
Baroque to present. The American song with emphasis on the 20th century literature.
4799. Conducting Recitai. (1). [1004-8]

4801-6801. Studles in Applied Music. (1-3). Directed individual or class instruction in applied area not iisted under MUAP PREREQUISITE: permission of department chairman credit [1004-8]

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 plano before beginning organ instruction. A student may not receive more than four hours credit in any one area of major group instruction. The fee for major group instruction will be the
same as for one half-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 freshman 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, reliable, and well-grounded technique on his instru ment. Organ students may begin at this level provided that they play the piano well and have reasonable ability in sightreading. Those who do not meet this requirement will register a student must first pass a qualifying examination.
Students who fall short of the requirements for admission to the lower-division courses will be advised to register for major roup instruction until deficiencies 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 committee, such a recommendation will be made only if the student's proficiency as a pertormer bears promise of future artistic and professional qualities as a soloist. It is at this level that 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 applied music. All required recitals must be approved by the faculty. This is normally accomplished no later than two weeks prior to the for a facuity committee. Only upon successtul completion of this hearing may a student confirm the scheduled date and make arrangements for the printing of the program.
Bachelor of Music majors 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 hiterature 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. [1004-8]
3103. Jazz Combo. (1). Practical application of basic jazz improvisatory skills; combo experiences in all jazz styles traditional, bop, contemporary Audition required. /1004-8/ ensembles. chamber music, and accompanying for woodwinds, brasses, strings, and vocalists. [1004-8]
3401. Percussion Ensemble. (1). Study and performance of selected traditional, contemporary, avant-garde and pops percussion literature. Open to students in percussion concen-
tration and others through audition. (1004-8]
3402. Contemporary Chamber Players. (1). Ensemble of muxed and variable instrumentation. Performance of reper-
toire written since 1900 and little known works of other toire writen 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. (1004-8]
3403. Orff Ensemble. (1). Study and performance of literature written for Orff instruments, including barred percussion, unpitched percussion, and recorder. [1004-8]
3501. String Ensemble. (1). Study and performance of string chamber music repertory. Coaching sessions weekly with a member of music facuity. Open to music majors and non-
majors through audition. [1004-8] majors through audition. $11004-8]$
3601. Camerata Singers. (1). Small Choral Ensemble. Cham-
ber repertory from Renaissance to present. Open to music majors and non-music majors through audition. [1004-8]
3602. Opera Workshop. (1-6). [1004-1]
3603. Opera Soloists. (1). Preparation and performance of role in major production of University Opera Theater. Audition required (1004-8)
3604. Opera Production Laboratory. (1-6). [1004-8]
3701. Woodwind Ensemble. (1). Study and performance of woodwind instruments. Audition required. [1004-8]

## LARGE MUSICAL ORGANIZATIONS[1004-1]

A minimum of eight of large ensembles is required of music majors. (Exceptions to this policy are pianists with concentratoons in Performance, Pedagogy, or Chamber Music; guitar-
ists, who are required to have a minmum of 6 semesters of ists, who are required to have a munimum of 6 semesters of
large ensemble; Commercial Music majors in Performance. who are required to have 8 semesters of the appropriate level jazz ensemble: and Commercial Music majors in Composi-
tion/Arranging, who are required to have 4 semesters of the appropriate level jazz ensemble.) Generally, wind and percus ble string performers are to participate in orchestras and ble, 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 sufficient large ensemble credits may partially fulfill their large ensemble requirement mum of 2 credit hours of small ensemble applicable to the mum of 2 credit hours or smar ensenble appicable to the otal arge ensemble requirement Ensembie assignments are based on audtion and may be repeated. Any exception to this review of petitions by the department chairman, the appropr1ate ensemble director, and the applied studio teacher.
2001. University Concert Band. (1).

001 UNIVERSITY CONCERT BAND Performance of traditional and contemporary wind compositions. Participants chosen from this ensemble for basketball pep-(1004-1)
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. [1004-1] 2002. Marching Band. (2). Selected ensemble which performs at all home football games and occasional out-on-town games in each season. Rehearsal approximately ten hours weekly. Open to music majors and non-music majors.
1003 )
2003. University Giee Club. (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. (1004-1)
2004. Unlversity Black 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 majors as elective. Two class meetings per week. $1004-1)$ 3004. University Wind Ensemble. (1). Select ensemble of
instrumentalists. Study and performance of outstanding repinstrumentalists. Study and performance of outstanding rep-
ertory for wind ensembles. Open to music majors and nonmusic majors through audition. [1004-1]
3005. University Orchestra. (1). Study and performance of major orchestral literature. Additional opportunities for
opera, chamber-orchestral and chamber ensemble performance. Audition required. (1004-1)
3006. University Choraie. (1). [1004-1]

001 UNIVERSITY CHORALE Study and performance of choral works from broad spectrum of choral literature; sacred, secular, accompanied and a cappella. Open to music majors and non-music majors through audition. 002 UNIVERSITY CONCERT CHOIR
3007. Opera Chorus. (1). Choral ensemble for opera productions with exploration of related stage techniques. Extra rehearsals at discretion of conductor. Audition required [1004-1]

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. [1004-1]
3010. University 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 will
meet large ensemble requirements for Commercial Music meet large
majors only.
3011. Recording Studio Lab Ensemble. (3). To perform and record works written by students in Commercial Music program.

001 Recording Orchestra for Instrumental Perform-
002 Recording Ensemble for Studio Singers
This course will meet large ensemble requirements for Commercial Music majors only

## K313 MUSIC EDUCATION (MUSE)

FIELD OF ENDORSEMENTS FOR TEACHING: Endorsement may be obtaned in Instrumental Music, and in School Music (choral). Normally a student can expect to be recommended in only one of these areas. School Music (choral emphasis) in only one of these areas. School Music (choral emphasis)
applicants should be able to play prano accompaniments of
average difficulty, should possess an adequate solo voice for average difficulty, should possess an adequate solo voice for school music purposes, and should schedule courses in a wide variety of choral activities. Instrumental Music applicants may satistactorily meet prano and voice requirements with com-
pletion of MUSE 1108 and MUSE 1113 , with their prerequipletion of MUSE 1108 and MUSE 1113, with their prerequi-
sites. Study in one instrument of major emphasis and particisites. Study in one instrument of major emphasis and participation in concert and marching bands, orchestra and avariety of smaller ensembles will also be required. Agraduation recital is required of all students who expect to graduate with the
Bachelor of Music Education with a concentration in School Bachelor of Music Education with a concentration in School
Music (choral) or in Instrumental Music. The following Music (choral) or in Instrumental MuSic. The following
courses. MUSE 1101 through 1104, are designed to teach the courses. MUSE 1101 through 1104 , are designed to teach the
music education major, already a competent performer in one music education major, already a competent performer in one field, the playing techniques of the major instruments of band and orchestra and the methods of instructing others in these techniques. Practice facilities are provided and there are no additional fees.
1100. Ciass Piano for Non-music Majors. (2). Beginning instruction in plano for non-music majors. Development of basic reading and performance skills. Two laboratory hours
and minimum of frve hours preparation per week. (1004-1]
1101. Class Instruction in Brass Instruments. (2). Basic performance skills and teaching techniques on trumpet, trombone. French horn, baritone horn and tuba for those who 1103. Ciass 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 laborafory intend to teach instrumental music in schools. Two laboratory hours per week. [0832-1]
1104. Class Instruction in Woodwind Instruments. (2). Basic performance skills and teaching techniques on clarinet, flute. istrumental music in schools. Two laboratory hours per ineek [0832-1]
1105. Ciass Instruction in Piano. (2). Basic technique, with emphasis on sight-reading. [1004-1]
1106. Class Instruction in Plano. (2). Playing of songs used in school music teaching; community songs, and hymns. PREREQUISITE: MUSE 1105 . (1004-1])
1109. Ciass Instruction in Stringed Instruments. (1). Basic performance skills and teaching techniques on violin, viola, cello and bass for those who intend to teach instrumental music in schools. Two laboratory hours per week. [0832-1] 1110. Class Instruction In Stringed Instruments. (1). Contin
uation of 1109 . Two laboratory hours per week. (0832-1) 1111. Class instruction in Guitar. (1). Functional accompany-
ing skills as commonly used in folk and popular music. Basic ing skills as commonly used in folk and popular music. Basic
and intermediate performance technique appropriate to the and intermediate performance technique appropriate to the
student's ability. May be repeated once for additional credit. (1004-1)
1112. Class Instruction in Voice. (1). Fundamentals of vocal production usefulfor all music teachers. Two laboratory hours production usefulfor
per week. (1004-1)
1113. Ciass Instruction in Voice. (1). Contınuation of 1112 with more emphasis on solo singing of easy songs. Two
laboratory hours per week. $11004-1]$
1115. Classroom Instruments: Guitar and Recorder. (2). Development of basic performance and teaching skolls in guitar and recorder. Analysis of teaching materials and reper-
tory 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. [0832-1]
2107. Ciass Instruction In Plano. (2).(1107) Simpler Bach chorales, more difficult songs, and accompaniments, appro-
priate to the student's major field; memorization optional. priate to the student's major field; memorization optional.
PREREQUISITE MUSE 1106 . [1004-1]
2108. Class Instruction In Plano. (2).(1108) Selected easier studies and compositions by Czerny, Concone, Beethoven,
Chopin, Schumann, Bartok, and others. Final examination Chopin, Schumann, Bartok, and others. Final examination piano proficiency exam, coples of which are avalable in music piano proficiency exam, copies of which are av
office. PREREQUISITE, MUSE 2107 (1004-1)
3001. Ciassroom Music Methods I. (3). Required of all Elementary Education majors. Experiences in singing, moving, listening. performing, and describing simple music appropriate for use in the elementary school. (0832-1]
3700. Basic Conducting. (2). Development of conducting skills. Basic baton principles, rhythmic analysis, expressive techniques, phrasing, and multi-metered problems. Class meetings require performing as instrumentalist or vocalist as well as conductor. Three class hours per week. PREREQUISITE: Completion of MUTC 3008. (1004-1]
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 4001-6001 Orff-Schulwerk Workshop for
4001-6001. Orff-Schulwerk Workshop for Classroom Teachers. (3). Broad, practical introduction to use of Orff-Schulwerk method of elementary music teaching. Development of performance leadership skills stressed. Not open to music majors. PREREQUISITE: one course in music methods or equivalent experience. [0832-1]
4201-6201. Special Problems in the Teaching of Music. (1-3). Class or individual study of problems and opportunities faced by person who teaches music in schools; for classroom istrators. May be repeated, but not for the purpose of changing a previous grade, for maximum of 6 semester hours credit. OO22.E
4202. Materiais and Methods of Music, Grades K-6. (3). Aums and principles of music and of traditional and contemporary methods of teaching in elementary schools. Creative approach to rhythm, listening, instrumental and singing activities. Contemporary systems of music teaching for elementary grades surveyed. (0832-1]
4203. Materlals and Methods of Classroom Music. (3). (Same as SCED 3322). Philosophy, methods, and materıals for teach ing non-performance music classes in secondary school grades 7-12. Includes demonstration, observations, and simu lation of classroom teaching at this level. [O832-1]
4204. Instrumental Music in Elementary and Secondary 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, instrument assign PREREQUISITE junior standing in music. (0832-1]
4205-6205. Marching Band Techniques. (2). Organizing and conducting the marching band; gridiron charting and march ing procedures with a study of precision drill, formations and pageantry. PREREQUISITE: permission of the instructor
[1004-1] 4206-6206. Music for Exceptional Children. (3). Types of exceptional 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
and visual perception (team taught with Special Education), MUSE 3001 tor SPER 2000 for music education majors: instructor. (0832-9]
4207. Choral Methods and Materlals. (2). Selected matenials 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. [0832-1]
4208-6208. Band Llterature. (3). History and evolution of wind instruments and wind instrument playing and the history and development of the wind band and its literature, with general background material on the specific composers involved. (0832-1)
4209. Plano Tuning and Repair. (2). Concentrated study of the basic techniques involved in piano tuning and adjustment. Some basic tools are required. (0832-1]
4210. Instrument Repair. (2). Study of construction and maintenance of all common musical instruments; frequently encountered by repair problems which must be handled immediately by teacher. Some basic tools required. May be repeated for credit when topic varies. [0832-1]

## 001 STRINGED INSTRUMENTS

002 BRASS INSTRUMENTS
003 WOODWIND INSTRUMENTS
4301-6301. Choral Arranging. (3). Practical experience in making arrangements for choral ensembles and organizaing them, including class involved and techniques of meetassigned projects. [1004-1]
4401. Music Education: Phllosophical Foundations. (3). Historical, philosophical, psychological, social, and aesthetic foundations of the total education programs, grades K
through 12. Admınistrative procedures and problems. The through 12. Administrative procedures and problems. The
music educator's role in the community. Evaluative techmusic educator's
niques. (O832-1)
4501. Basic Plano Pedagogy. (3). Emphasis on elementary piano methods including Pace, Suzukt, and class techniques. PREREQUISITE: permission of instructor. [O832-8]
4503. Advanced Plano Pedagogy. (3). Approaches to the teaching of piano technique, repertory, and musicianship. For sion level in keyboard. (O832-1) 4504-6504. String Pe [0832-1)
4504-6504. String Pedagogy. (3). Various methods of teach-
ing strings with special emphasis on contemporary theories of ing strings with special emphasis on contemporary theories of
pedagogy; observation and laboratory teaching in MSU String pedagogy; observatıon and laboratory teaching in MSU String string students. PREREQUISITE: permission of the instructor. [O832-1]
4505-6505. Principies of Accompanying. (3). Performance class involving practical study of instrumental and vocal standard repertory and the problems of ensemble playing. Facility in sight-reading and ability to assimilate music rapidly. Score-reading transposition and figured bass realization introduced as skills necessary to well rounded music
REQUISITE: permission of instructor. [1004-8]
4506-6506. Introduction to Suzuki Taient Education for Strings. (3). Required of students who plan to serve as
apprentice string teachers in the MSU SuzukiTalent Education apprentice string teachers in the MSU Suzuki Talent Education
program. Basicinstruction in the Suzuki philosophy; participaprogram. Basicinstruction in the Suzuki philosophy; participa-
tion with parents and children in Suzuki string classes. [0832-1]
4507. Organ Pedagogy. (2). Repertory materials suitable for analysis and registrational concepts. PREREQUISITE: permission of instructor (0832-1]
4508-6508. Princlples of Suzuki Plano. (3). Suzukı philosophy applied to development of the child's abilities and the role of the teacher and parent. Students will analyze the tec and music
4509-6509. Suzuki Vioiln Literature and Technique. (3). Literature and technique taught in the Suzuki Violin School; fundamental technique, development of posture, tone and listening ability in beginning students; analysis of pedagogical materıal Required of students who plan to serve as apprentice teachers in the MSU Suzuki String Program. PREREQUISITE. MUSE 4506
4511-6511. Class Plano Pedagogy. (3). Group instruction techniques in the teaching of beginning, intermediate, and early advianced piano. Emphasizes observation and practical application. For the piano major and/ or prospective piano
teacher. PREREQUISITE: Upper division level in keybcard or permission of instructor.
4700. Instrumental Conducting. (2). (3701). Various problems encountered in preparation and conducting of instru-
mental scores; individual practice with the opportunity for mental scores; individual practice with the opportunity for
each student to conduct instrumental groups. Three class each student to conduct instrumental groups. Three
hours per week. PREREQUISITE: MUSE 3700. [1004-1]
4701. Choral Conducting. (2). Various problems encountered in preparing and conducting traditional and contemporary laboratory groups. Three class hours per week. PREREQUISITE: MUSE 3700. [1004-1]
4801-6801. Teaching Music Comprehensiveiy. (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, ju
school, college, and private studio. (0832-1)
4802-6802. Introductory Workshop In Orff-Schuiwerk. (3). Basic Orff-Schulwerk techniques including body movement, soprano recorder, percussion, vocal performance, improvisa-
tion and arranging. PREREQUISITE: junior standing in music
education or equivalent experience: 0832 -1] education or equivalent experience. [0832-1]
4803. intermediate Workshop In Orff-Schulwerk. (3). Intermediate level Orff techniques, including modal harmonization, irregular rhythms, alto recorder performances and more
extensive improvisation and arranging. PREREQUISITE: MUSE 4802 or its equivalent in experience. [O832-1]

4804-6804. Teacher's Workshop in Ortt-Schulwerk. (3). Advanced Orft-Schulwerk techniques including original composition, complex form, movement and instrumental arr ange-
ments, tenor and bass recorders performance, and advanced improvisation. PREREQUISITE: MUSE 4803 or it s equivalent in experience. ( $0832-1$ ]

## K320 COMMERCIAL MUSIC (CMUS)

1116. Class Instruction In Piano: Jazz/Pop/ Commerclal. (2). Class instruction in jazz, pop, and commercial music piano styles: basic harmonic patterns, chord symbol realization,
voicing, basic rhythmic patterns. PREREQUISITE: MUSE 1105 volcing, basic rhythmic patterns
or equivalency exam. [1099-1]
1117. Electronlcs Technology I. (3). (Same as TECH 1811), and devices, circuit and network thical and electronic theory emphasis on basic electrical measurements and the proper use of instruments. PREREQUISITE: MATH 1213. [1099-1]
1118. Muslc Theory: Jazz/Pop/Commerclal I. (3). (MUTC 2101). Theory of jazz, pop, and commercial music styles. Basic harmonic structures, chord symbol realizatiom, melodic structures, notation, articulation, rhythmic patterns; analysis of written and recorded jazz. pop, and commercial music; transcription of recorded materials. PREREQUISITE: MUTC, 1009. (1009-1]
1119. Music Theory: Jazz/Pop/Commercial II. (3). Altered scales and modes, altered and extended chords, chromatic progressions, mediant relatıonships, poly-harmony and
panchromaticism. PREREQUISITE: CMUS 2101. [1099.1]
1120. Lettering and Layout. (3). (Same as Art 2213). Introduction to graphic design: problems involving use of typography: principles amd techniques of layout; and development of
1121. Graphic Productlon. (3). (Same as Art 2221). Prepara tion of copy for photomechanical reproduction Printing processes, halftone amd line reproduction, selection and use of type and paper. [1009-1]
1122. Composition/Arranging: Jazz/Commerclal I. (3). Class instruction in jazz and commercial music composition groups and basic styles. PREREQUISITE: CMUS 2101 or groups and basic styles. PREREQUISITE: CMUS 2101 or permission of instructor. NOTE Composition is taught as
applied music. Students receive the equivalent of one halfhour lesson per week. The fee for this instruction is $\$ 30.00$. [1099-1]
1123. Composition/ArrangIng: Jazz/Commerclal II. (3). Individual instruction in jazz and commercial music composigroups in various jazz and commercial styles. PREREQUISITE: CMUS 2501 or permission of instructor. NOTE: Composition is taught as applied music. Students recelve the equivalent of one hour lesson per week. The fee for this instruction is
$\$ 60.00 .[1099-8]$
1124. Promotion and Mansgement of Artists. (3). Problems involved in management and promotion of recording artists. Attention to management, recording procedures, booking. personal appearances as they relate to development of artist. A portfolio will be completed. PREREQUISITE: CMUS 3223. [1099-1]
1125. Record Promotlon and Sales. (3). Current practices in promotion and sale of recordings. Emphasis on radio station music formats and other methods of exposing recordings to the public. Sales portion examines wholesale, one-step, rack,
and retail store sale of recordings. [1099-1]
1126. Anatomy of Popular Song. (3). Analysis of current popular music; techniques of text setting; choice of text and CMUS 2101 or permission of instructor. [1099-1]
1127. Packaging and Display. (3). (Same as ART 3223). Package designing and display tec
CMUS 2213 and 2221 . [1099-1]
1128. Production Laboratory. (1-3). (Same as THEA 3542). Preparation for and participation in departmental theatre
productions. Individualized work in form of supervised laboraproductions. Individualized work in form of supervised labora-
tory situations. Running crews for season productions tory situations. Running crews for season productions
selected from participating sections. May be repeated for selected from pa
credit. (1099-8)

001 PUBLICITY (1)
002 COSTUMES (1)
003 LIGHTS (1)
004 SOUND (1)
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, thun-
der, lightning, supernatural illusions, etc. Offered alterder, lightning, supernatural illusions, etc. Offered alter-
nate years. PREREQUISITE: permission of instructor. 010. SOUND SYSTEMS AND DESIGN. (3). Classes and equipment use and aesthetics. Offered alternate years. equipment use and aesthetics. Offered alt
3800. Recording Studlo Procedures. (3). Fundamental course in recording/engineering; understanding the language, layout, and functional components of the recording studio and equipment: general maintena
3801. Studio Synthesizers. (3). Study of each module of synthesizer system; interfacing of modules and use of instru-
ment for signal processing and compostion; correlation of audible presentation of a tone with visible wave-shape display. PREREQUISITES: TECH or CMUS 1811, CMUS 3800.
3823. Television and Flim Production and Aesthetics I. (4). (Same as COMM 3823). Basic production skills and theory; studio control, recording, still photography, studo and smallformat TV production. Aesthetics of sound and moving image. Three hours lecfure-demo-crifique, fwo hours laboratory. PREREQUISITE: permission of instructor. [1099-8]
3824. Television and Film Production and Aesthetics II. (4). (Same as COMM 3824). Intermediate production skills and theory, audio mixing including film sound, motion picture photography and editing. graphics. TV production, Aesthetics of moving image. Production of exercise. Three hours lecture-demo-critique, fwo hours laboratory. PREREQUISITE: CMUS 3823. [1099-8].
3825. Materiais and Techniques of Improvisation I. (3). Development of improvisation skills on solo instruments or Development of improvisation skiles, arpeggios: performance voice; basic chord patterns. SCaISITE: CMUS 2101 or permission of instructor.

001 INSTRUMENTAL
002 VOICE
3826. Materiais and Techniques of Improvisation II. (3). Analysis of melodic structures; motivic fragmentation and Analysis of melodic structures, mos structures, articulatory vari-
sequencing; extended harmonic sequencing, extenced insmall combo settings. PREREQUISITE: CMUS 3825 or permission of instructor

001 INSTRUMENTAL
002 VOICE
3827. Materiais and Techniques of Improvisation III. (3). Analysis and performance of music in standard styles, including bebop. Latin, third stream, soft rock, hard rock, and bles. PREREQUISITE: CMUS 3826 or permission of instructor.

001 INSTRUMENTAL
002 VOICE
3828. Aesthetics and Analysis of Jazz and Commerclal Music Styles. (3). Fundamentals of form and style analysis; study of the artistic and commercial intentions and appropriateness of music from early popular styles to the present. PREREQUISITE: CMUS 2102 or permission of instructor.
3861. Acoustical Equipment and Studio Techniques. (3). (Same as TECH 3861). Application and operation of microphones, magnetic tape recorders, signal processing equipment, recording studio consoles, noise reduction devices, speakers, and studio session procedures. Three lecture/fwo
laborafory hours per week. PREREQUISITES: TECH or CMUS 1811 (CMUS majors only). CMUS 3800.
4102-6102. Composer's Workshop: Jazz/Commerclal. (3). (MUTC 4102) Composition in musical styles for various sizes of instrumental and vocal groups; writing for commercials. arranging: recording studio techniques. PREREQUISITE: CMUS 2502. [1099-I]

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. [1099-1] 001 INSTRUMENTAL PERFORMANCE
002 VOCAL PERFORMANCE
4201. Studies in Commercial Music. (1-3). Class or individual study of special problems in Commercial Music. May be repeated if course content differs. [1099-8]
4501. Composition/Arranging: Jazz/Commercial III. (3). Advanced individual instruction in jazz and commer cial music composition and arranging, Large and small ensembles, various media, compositon for studio orchestra. PREREQUISITE: CMUS 2502 or permission of instructor. NOTE: Composition is taught as applied music. Students receive one hour lesson per week. The fee for this instruction is $\$ 60.00$ [1099-8]
4502. Introduction to Film Scoring and Editing. (3). Basic problems of writing music for film; commercials, shorts, and probiems of writing music for film; commercials, shorts, and fullion to editing room equipment; assignments for 16 mm and 35 mm film; writing from a cue sheet. PREREQUISITE: CMUS 2502 or permission of instructor. (1099-1]
4602. Introduction to Commerclal Music. (3). (MUHL 4602). Music industry including copyright, royities, producing. labor relations, promotion, advertising, and distribution. (1099-1)
4603-6603. Proseminar in Commercial Music. (3). (MUHL 4603). Study of commercial music with lecturers and distinguished guests from the industry Individual projects required PREREQUISITE: CMUS 4602 or permission of instructor [1099-1]
4800. Basic Recording. (3). Engineering the recording session; microphone selection and placement; console operasion, microphone selection and placement, console opera-
tion, editing. mixing. PREREQUISITES: CMUS 3801 . 3860 , tion, editing. mixing. PR
4801. Probiems in Recording. (1-3). Independent projects in recording. May be repeated to maximum of nine hours, but
not for purpose of changing grade originally given. PREREQUFSITES: CMUS 4800, permission of instructor.
4802. Advanced Recording. (3). Use of sophisticated equipment and advanced techniques in sound recording process. PREREQUISITE: CMUS 4800 or permission of instructor. (1099-4)
4803. Digitai Recording. (3). Basic concepts of digital recording: introduction to digital recording equipment and techniques. PREREQUISITE: CMUS 4802. [1099-1]
4804. Recording Studio Operation. (3). Overview of entire operation requirements of a recording studio; management and scheduling problems. PREREQUISITE: CMUS 4802 or permission of instructor. [1099-1]
4805. Disc Recording. (3). Principles, mechanics and techniques of tape-to-disc transter. PREREQUISITE: CMUS 4802. [1099-1]
4831. Radio and Television Saies and 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. [1099-1]
4897. Project in Commercial Music. (3-4). Final project in commercial music performance and composition: detalled proposal developed by student and main advisor. [1099-8]

1. 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.
2. 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.
3. Professional Commercial Music Seminar. (3-12). Independent project resulting in sufficient material to constitute one long-playing album or an extensive promotional campaign. Required of students not placed in internship. May be repeated for up to 12 hours credit. [1099-8]
4. Internship. (3-12). Minimum of one semester of field work experience in selected area(s) of the music industry. May be repeated for up to 12 hours credit. PREREQUISITE: placement interview and completion of program in Recording Engineering or Music Business.

APPLIED MUSIC COURSES

| APPLIED MUSIC COURSES |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Major Group | Lower Division | Upper Division | Junior Recital | Senior Recital |
| Instrument | Instruction (2) | (1-4 each) | (1-6 each) | (1 each) | (1 each) |
|  | [1004-8] | [1004-8] | [1004-8] | [1004-8] | [1004-8] |
| Trumpet | 1110 | 1111 | 4111-6111 | 4118 | 4119 |
| Horn | 1120 | 1121 | 4121-6121 | 4128 | 4129 |
| Trombone | 1130 | 1131 | 4131-6131 | 4138 | 4139 |
| Tuba | 1140 | 1141 | 4141-6141 | 4148 | 4149 |
| Piano | 1310 | 1311 | 4311-6311 | 4318 | 4319 |
| Harpsichord | - | 1321 | 4321-6321 | 4328 | 4329 |
| Organ | - | 1331 | 4331-6331 | 4338 | 4339 |
| Accompanying | - | - | - | 4348 | 4349 |
| Percussion | 1410 | 1411 | 4411-6411 | 4418 | 4419 |
| Violin | 1510 | 1511 | 4511-6511 | 4518 | 4519 |
| Viola | 1520 | 1521 | 4521-6521 | 4528 | 4529 |
| Celio | 1530 | 1531 | 4531-6531 | 4538 | 4539 |
| Bass | 1540 | 1541 | 4541-6541 | 4548 | 4549 |
| Guitar | 1550 | 1551 | 4551 - | 4558 | 4559 |
| Harp | 1560 | 1561 | 4561-6561 | 4568 | 4569 |
| Viola da Gamba | 1570 | 1571 | 4571-6571 | 4578 | 4579 |
| Voice | 1610 | 1611 | 4611-6611 | 4618 | 4619 |
| Flute | 1710 | 1711 | 4711.6711 | 4718 | 4719 |
| Oboe | 1720 | 1721 | 4721-6721 | 4728 | 4729 |
| Clarinet | 1730 | 1731 | 4731-6731 | 4738 | 4739 |
| Saxophone | 1740 | 1741 | 4741-6741 | 4748 | 4749 |
| Bassoon | 1750 | 1751 | 4751-6751 | 4758 | 4759 |
| Recorder | 1760 | 1761 | 4761-6761 | - | - |

## THEATRE AND COMMUNICATION ARTS

PROFESSOR MICHAEL M. OSBORN. Chairman

## Room 143. Theatre and Communication Arts Bulding

## The Department of Theatre and Communication Arts offers

 concentrations in general speech and theatre, dance, broadcasting, communication, hilm and videotape production, and theatre; requirements for these and B.F.A. degree are found in Section 7 . College and Degree Programs.NOTE: Students may take theatre and communication arts laboratory courses (v/s. COMM 3301, THEA 3541, 3542) as often as advisor will allow. None of these courses may be given.

## K491 THEATRE (THEA)

## Dr. James Kerth Kennedy. Director

1212. Volce and Articulation for the Performer. (4). Especially for the actor, concentrates on voice-body mechanism as it responds to communicative image. NOTE: Students who have recerved credit for SPCH 1211 or COMM 1211 may not
recerve credit for THEA 1212 (1007-1] recerve credit for THEA 1212. [1007-1]
1213. Basic Oral Interpretation. (3). Introduction to interpretation of literature in performance. To develop and heighten performer's responsiveness to his literary text. (1007-1)
1214. Introductlon to Theatre. (3). Consideration 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).
[1007-1]
1215. Introduction to Design. (3). Historical and conceptual survey of basic elements of production - scenery, costumes. lighting, sound - and their relation to theatrical production process. [1007-1]
1216. Stage Movement. (3). Introduction to movement as basic element of actor's craft. Focus on recognition, development, and understanding of natural physical actions and rhythms and their application to stage. [1007-1]
1217. Theatre Dance. (3). Introduction to elements of movement patterns and rhythms for stage. PREREQUISITE: THEA 2501. [1007-1]
1218. Theatre Crafts. (3). Lecture/laboratory covering all phases of craft skills and equipment involved in technical theatre production. (1007-1)
1219. Introduction to Theatre Graphlcs. (3). Introduction to artistic graphic communication processes of technical theatre. Includes methodology and importance of beginning sketching; draftıng; costume, set. and light design; as well as poster and program graphics. [1007-1]
1220. Stage Make-up. (3). Lecture/laboratory class in which undamentals of theatrical make-up are studied through a series of make-up projects including corrective make-up. fantasy. mask and beard make-ups. [1007-1]
1221. Acting for Non-Majors. (3). Introduction to craft of acting. Development of actor's individual potential through acting. Development of actor's individual potential th
basic technique. Performance of short scenes in class.
basic tech
[1007-1]
1222. Baslc Acting Techniques. (3). First essential of acting study: exploration of the actor. Class exercises to develop relaxation, concentration, imagination, and improvisation skills. (1007-1)
1223. Character Development. (3). Principles of role analysis through study of subtext, character motivation, and objec-
tives. PREREQUISITE: THEA 2531 or permission of instructor. [1007-1]
1224. Performance of Poetic Forms. (3). (SPCH 2411). In depth study of poetic literature as interpreted by the perform er. To develop and heighten performer's sensitrvity to language styles and rhythms. [1007-1]
1225. Interpretation Experiments. (3). (SPCH 2412). Intensive study of theatrical image. Creative exercises in maginative use of space, time, and experimental script materials in directing for the stage. (1007-1]
1226. Directing Narrative Theatre. (3). Theory and techniques in staging of experimental forms, poetic, narrative, and compiled scripts. (1007-1)
1227. Interpretation of Black LIterature. (3). Principles and practice relative to oral interpretation of poems, speeches, and plays written by Black Americans. PREREQUISIFE: THEA 1411.
1228. Movement Styles I. (3). Technıques and choreography in different movement styles. PREREQUISITE: THEA 2501.
1229. Movement Styles II. (3). Movement and dance of different periods, as well as special areas such as mime and masks. PREREQUISITE: THEA 3505.
1230. Stagecraft I. (3). Lecture/laboratory includes theatre terminology, theatre forms, production organization, job descriptions, and safety. Scenery construction to include panting, flat scenery, three-dimensional scenery, and introduction to steel materials. Required lab work. PREREQUISITE: THEA 2511 or 2512 (1007-1)
1231. Stagecraft II. (3). Lecture/laboratory includes shifting scenery, flying, rigging, properties design, and construction. Lectures and demonstrations on color in theatre and scenery panting equipment and methods
1232. Directing for Non-Majors. (3). Theoretical and practical application of directing techniques. Short scenes staged for class. NOTE: Will not count as an elective for a major or minor in Theatre. [1007-1]
1233. Directing. (3). Basic organizational techniques of stage
direction. [1007-1]
1234. Lyric Theatre. (3). Analysis of earlier and related music-theatre forms, but focus on the "musical" as a unique theatrical form. Selected scenes directed and performed. [1007-1]
1235. Scene Study. (3) Development of ensemble work within scenes. PREREQUISITE: THEA 2532. (1007-1)
1236. Advanced Scene Study. (3). Continuation of 3531. Attention to material from modern classics. PREREQUISITE THEA 3531 . (1007-1)
1237. Performance Laboratory. (1-3). (3401). Practical application laboratory for performance courses and special work shops. (Repeatable for credit). (1007-8]
1238. ACTING TECHNIQUES. (1). To be taken in conjunction with $2531 / 2532$ - Section 1 only
1239. ACTING TECHNIQUES. (1). To be taken in conjunction with $2531 / 2532$ - Section 2 only.
1240. SCENE STUDY. (1). To be taken with $3531 / 3532$ only.
1241. STYLES. (1). To be taken with $4531 / 4532$ or
$6531 / 6532$ only.
1242. AUDITION PREPARATION. (1). Weekly meeting to review /critique actors' audition choices and progress. 006. VOICE TECHNIQUES. (1). For students seeking critical review and help with preparation and delivery of musical pieces
1243. STAGE MANAGEMENT. (1). Lecture and training
sessions precede actual assignment to department al sessions precede actual assignment to departmental productions. Stage managers work closely with directors and oversee entire backstage operation during production run.
1244. ANALYSIS. (1). Critical perceptions of Performance (and Production) skills developed through written critiques. Students evaluate at least 5 theatrical productions (aiternoon or evening). May be taken in conjunction with available in Theatre Office (143).
1245. NON-MAJORS. (1). For students (not theatre majors) who are, or wish to become, involved in Season or Lunchbox productions. A theatre faculty member helps students prepare for auditions.
1246. TV/FILM. (1). To be taken with 4631-6631 only. 011. TOURING. (1). In conjunction with departmental ensemble groups only
1247. MUSIC-THEATRE WORKSHOP. (1). To be taken with THEA 3523 (Lyric Theatre), or as part of Summer Program.
1248. TOURING. (2). In conjunction with departmental ensemble groups only
1249. MUSIC-THEATRE WORKSHOP. (2). Summer Pro gram
1250. MUSIC-THEATRE WORKSHOP. (3). Summer Program
1251. Production Laboratory. (1-3). (3501). (Same as CMUS 3542). Preparation for and participation in departmental theatre productions. Individualized work is in form of super tions selected from participating sections. May be repeated for credit. (1007-8)
1252. PUBLICITY, (1)
1253. COSTUMES. (1)
1254. LIGHTS. (1).
1255. SOUND. (1).
1256. SCENERY. (1).
1257. PROPS. (1)
1258. MAKE-UP (1)
1259. HOUSE MANAGEMENT (1)
1260. SPECIAL EFFECTS. (2). Instruction in how to safely create stage fures, explosions, smoke, rain/snow, thunder, lightning, supernatural illusions, etc. Offered alternate years. PREREQUISITE: permission of instructor. lab work. Basic electronics and system hookups. Actual equipment use and aesthetics. Offered alternate years PREREQUISITE: permission of instructor
1261. Scene Design. (3). New materıals and methods of rendering theatrical scene designs. Includes water color, 4401-6401. Interpretation of Children's Literature. (3). Adaptation of literature for individual and group performances 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. [1007-1]
4411-6411. Stage Dlalects. (3). Study and practice of foreIgn dialects for American stage. Off
UISITE: COMM 1211. [1007-1]
4421-6421. Interpretation 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. (IO07-1)
4431-6431. Interpretation of the Novel. (3). Studies in oral interpretation of prose fiction; attention to various literary
styles and structures. PREREQUISITE. THEA 3411. [1007-1] 4441-6441. Interpretation of Drama. (3). Group performance in dramatic and narrative theatre styles. May be repeated for a maximum of 9 hours. PREREQUISITE: Audition for Moving Line Company
4451-6451. Interpretation of Shakespeare. (3). Studies in oral presentation of scenes from selected comedies, histories, and tragedies, with exploration of character and dramatic structure. (1007-1)

4501-6501. Advanced Movement Styles. (3). Further devel opment of technique, and refinement of personal as well as period styles. PREREQUISITE: THEA 3506. (1007-1)
4502-6502. Ensemble Movement. (3). Performance troupe blends improvisational techniques, voice, mime, acting, and physical mo
tor. (1007-1
4503-6503. Creative Dramatics. (3). Basıc techniques and theories for use of dramatization in elementary and secondar education. Includes socio-drama, dramatızation of schoo subjects and datly concerns, and improvisation and creation of dramatic plays. (1007-1]
4511-6511. LightIng and Sound Mechanics. (3). (3513) Intro ductory study of technical principles which support areas o theatrical lighting and sound design. Includes instrumentation and equipment, electricity and electronics, control systems operational and maintenance principles and procedures fo stage electricians and sound engineers. [1007-1]
4515-6515. Scene Painting. (3). (SPCH 4563). Lecture aboratory covering technıques of paintıng scenery for stage Offered alternate years. PREREQUISITE: THEA 3561
[1007-1]
4516-6516. Technical Direction. (3). Lecture/laboratory for theatre technicians includes production organization and safety, engineering, rigging, materials control and supply ordering. Offer
3512 . $1007-1$ ]
4517-6517. Materlals and Technology (3). Lecture/laborato ry with general introduction to materials includes carpentry and lumber, metal-working and welding, fiberglass construc tion and casting, rigid and flexible foams and thermoplastics Offered alternate years. PREREQUISITE: THEA 3512. [1007-1]
4521-6521. Advanced 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
SITE: THEA 3521 . (1007-8)
4523-6523. Chlldren's Theatre. (3). Exploration of theories and styles of children's theatre, application of principles to problems in production and preparation of plays designed for chuldren's audiences. May be repeated for up to 6 hours credit with permission of instructor. [1007-1]
4531-6531. Acting Styles. (3). Development of acting styles as influenced by environments of historical periods. (May be 3532. (1007-8)

4532-6532. Advanced ActIng Styles. (3). Contınued work in acting styles. (May be repeated for maximum of 6 hours.) PREREQUISITE: THEA 4531 . (1007-8)
4541. Internship. (1-6). (4011). Supervised work in actual university, community, or professional theatre productions responsibility involved. May be repeated for a maximum of 12 semester hours. PREREQUISITE: permission of Director of Theatre. [1007-5]
4551-6551. Theatre History - Classlc. (3). (SPCH 3551). Shaping forces and theatrical forms in western civilization from Greek times to Romanticism. [1007-1]
4552-6552. Theatre History - Modern. (3). (SPCH 3552). Continuation of 4551 to present. [1007-1]
4553. Directed Individual Studies In Theatre. (1-3). For advanced student who wishes to do concentrated study in specific area of theatre. May be repe instructor. (1007.8]
4554-6554, Costume History. (3). Survey of clothing fashion rom primitive times to present: special emphasıs on psycho ogical implications of fashion change applicable to theatre (1007-1)
4556-6556. Undergraduate Seminar In Black Theatre. (3). (4566). Selected topics in contemporary black theatre. May be repeated up to $\$$ Ix hours. PREREQUISITE: permission of instructor. [1007-1]
4562-6562. Costume Deslgn. (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. PREREQUI SITE: THEA 4554. (1007-1)
4564. Scenography. (3). Total production design - coordinatıon of all aspects of costume, scenery, and lighting into whole of production. (May be repeated for maximum of 6 hours.) PREREQUISITE: THEA 4569. (1007-1)
4565-6565. Applled Costume Design. (3). Lecture/laborato ry class covering all phases of the costume craft to include basic sewing techniques, basic pattern, drafting and draping echniques, costume prop construction, millinary techniques. [1007-1]
4567-6567. LIghting Design. (3). (SPCH 4512). Lecture/ seminar / practicum investigation of art of theatrical lighting design. Includes script analysis, design approaches and methodologies, procedures and practices for working designer, cue techniques, design styles and forms, and criticism of lighting design Research, project work, and staged scenes required
PREREQUISITE: THEA 4511 or permission of instructor.
4568-6568. Advanced LIghtIng and Sound Design. (3). Lecture/seminar / practicum investigation of arts of lighting and sound design. Includes conceptual development of design. integration with the scenographic process, survey of forms and styles, and special design problems. Practical work on either main stage or ancillary p
4569-6569. Styles of Design. (3). (SPCH 3562). Historical evolution of, and practical approaches to, major styles of roduction design that dominate contemporary theatre. PRE REQUISITE: THEA 3561. [1007-1]
4571-6571. Playwriting (3). Theory and princuples of writing plays for stage. Practice in writing either short or long play.
May be repeated for maximum of 9 semester hours. PREREQ. UISITE, permission of instructor. (1007-8)

4581-6581. Dramatic Theory and Criticism. (3). Major documents in dramatic
present. (1007-1]
4582.6582. Analysis of Dramatic Literature. (3). Examining the script as blueprint to discover and evolve particular
components which lead to its artistic fulifilment and unity. Advanced techniques of director and scenographer used to solve artistic/practical problems of specific plays. PREREQUISITE: THEA 4551 or 4552 . [1007-1]
4591. Theatre Management. (3). Basic box office and publicity procedures for theatre. Offered alternate years. (1007-1) 4592-6592. Theatre Archltecture and Facilitles Planning. (3).
Processes. and techniques employed by theatre planners in Processes and technıques employed by theatre planners in
design and construction/renovation of theatrical spaces and structures. Includes survey of theatre forms, historical devel opment of theatrical structures and spaces. programming methods and procedures, specitication, renovation tech-
niques, mult-use structure concepts, and consultation proceniques, multi-use structure concepts, and consultation proce-
dures and practices. Offered alternate years. PREREQUISITE: dures and practices. Offered altern
permission of instructor. [1007-1]
4631-6631. Acting for Fllm and Television. (3). Educational experience for actor in media of film and television, concen-
trating on dramatic, commercial and documentary areas. trating on dramatic, commercial and documentary areas.
PREREQUISITE: THEA 2531 (for acting majors) - OR COMM 3823 or 3824. [1007-1] (
4921-6921. Elements 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. [1007-1]

## K493 COMMUNICATION STUDIES (COMM)

DR. JOHN P. BAKKE, Director
1211. Volce and Articulation. (3). Principles of effective voice usage. Emphasis on improving voice characteristics and diction. [1506-1]
1311. Public SpeakIng. (3). Principles of ethical and effective public speaking: practice in construction and de
original speeches in presence of audience. [1506-1]
1780. Introduction to Human Communication. (3). Princlples and processes underlying all human communication Study of communication models, communication purposes
and breakdowns, and variables related to interper sonal., small group, intercultural, and public communication. (0601-1) 1781. Introduction to Rhetoric and Communication Arts. (3). communication. Consideration of rhetorical styles and effects in speeches. debates, documentaries, and dramatic and entertainment forms. (0605-1)
1782. Media in Modern Soclety. (3). Historical, cultural, technological, economic, political, and social factors which
help shape mass media messages in changing American society. [0601-1]
1851. Introduction to Flim. (3). Film as a cultural, artistic, and social phenomenon.
2321. Argumentation and Debate. (3). Basic principles of argumentation; emphasis on developing practical skills in
analysis, reasoning, evidence, and organization of argumentaanalysis, reasoning, evidence, and organizatary society.
tive speech; role of debating in contemporat [1506-1]
2322. Persuasive Speaking. (3). Study and practice in meeting training demands of persuasive speech situation. Advanced training in use
style. [1506-1]
2361. Black Rhetoric. (3). Speeches and rhetoric of black man's struggle in America. Emphasis on spokesmen such as Waiker, Turner, Douglass, Washington, DuBois. Malcolm X,
King, Carmichael, Baldwin, and Jones. [1506-1] 2781. Introduction to Rhetorical Theory. (3). Theories of
persuasion and communication from ancient to contempopersuasion and communication from ancient to contempo-
rary times. Emphasis on classic tradition as related to interrary times. Emphasis on classic tradition as rela
personal and societal communication. (1506-1]
2911. Speech for the Elementary Classroom Teacher. (3). Emphasis on voice and articulation, classroom speaking, and oral interpretation of literature. (1506-1)
3011. Speech Communication in Organizations. (3). Informa-
tion flow, communication systems, and communication break-down in contemporary organizations. Emphasis on business, governmental, and institutional structures. (O601-1] 3013. Communication In Politics. (3). Types of political communication between politiclans and constituencies. emphasis on presidential rhetoric and campargn speaking and
communication via mass media. Includes practice in concommunication via mass media. Includes pra
struction of model political speeches. [0601-1]
3322. 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, persua
sibility, and attitude change Items for analysis drawn from sibility, and attitude change. Items for analysis drawn from
speeches, advertising, radio, television and film. [0601-1]
3341. Discussion. (3). Study and practice of principles and techniques of discussion. dealing with current problems of tide interest and significance. [1506-8]
wid
3371. Freedom and Responsibility of Speech. (3). Development of freedom of speech as Western value and attendant problems of ethical practice, limitations, and responsibility [1506-1]
3373. The Rhetoric of Social Protest. (3). Speeches, 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. (1506-1)
3800. Elements of Broadcasting. (3). (3881). Structure of broadcasting and economic influence and constraints within which the industry functions. (0601-1)]
3820. Broadcast Preparation 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.
newscasting and combo-announcing.
[O603-1]
3821. Radio Production and Studlo Operations. (3). (3825). Preparation, production and evaluation of programs, includ ing taik, discussion, interview, music, documentary and specompilation for broadcast use. (0603-8]
3822. Advanced Radlo 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 . PREREQU
(0603-5)
3823. Televislon and Film Production and Aesthetics 1. (4). (Same as CMUS 3823). Basic production skills and theory audio control, recording, still photography, studio and smailormat TV production. Aesthetics of sound and moving image Three hours lecture-demo-critqque, two hours lab
PREREQUISITE: permission of instructor. [0603-8]
3824. Television and FIIm Production and Aesthetics II. (4). (Same as CMUS 3824). Intermediate production skills and theory in film and television. including actual production exercises. Three hours lecture-demonstration-critiques: two hours laboratory. PREREQUISITE: COMM 3823 or permission of instructor. [0603-8]
3851. Art of Film. (3). (1851). Functions, develpment and techniques of film as fine and popular art. Study of film language and forms as means of expressionistic. Hollywood, observational, etc. [0605-1]
4101-6101. Contemporary Theorles of Language. (3). Influence of language upon behavior, limitations of language as communicative system, and relationship between language and thought. [1506-1]
4341-6341. Interpersonal and Small Group Communication. (3). Advanced theory in logical. psychological, and sociological investigation of issues in small groups. [O601-8]
4361-6361. History and Criticlsm of British Public Address. (3). British speakers and speaking from 16th century to preseakers. Such men as Fox Pitt Sheridan Burke Disrand speakers. Such men as Fox, Pitt, Sheridan, Burke, Disraeli,
and Churchill considered. Repeatable to maximum of 6 hours and Churchill considered. Repeatable to
with permission of instructor. (0601-1]
4362-6362. History and Criticism of American Public Address. (3). Analysis of political. religious and social speaking from colonial times to present. Such men as Clay, Emerson. Lincoln, Webster, and the Roosevelts considered. Repeatable to maximum of 6 hours with per mission of instructor. (1506-1]
4366. Undergraduate Seminar In Communication Arts. (3). Stresses individual work, preparation of papers and reports, and extensive class discussion; topics vary from semester to semester. May be repeated up to 6 hours. [1506-8]
4371-6371. Rhetorical Criticism. (3). Problems in theory and criticism of classical and modern rhetorical works; application of principles of rhetoric to critical evaluations of current public speakıng practice. (1506-1]
4373-6373. Interraclal Communication. (3). Special problems encountered in communication among races. Readings, discussion, and field study on how prejudice. stereotypes, and self-concepts can aftect communication; exploration of rheCOMM 2361 or permission of instructor. (O601-1]
4374-6374. Directed Studies In Communication Arts. (1-3). independent research in areas of special interest. Includes hetoric, radio, television, and film. PREREQUISITE: permis sion of instructor. [0601-8]
4375-6375. Intercultural Communicatlon. (3). Special problems encountered in communications between people of different cultural backgrounds. Focus on understanding communicative interaction between and among people with different national/cultural backgrounds and tunctioning more
4704-6704. Theorles of Communication. (3). (Same as JOUR 4704). Comparison of theories offered to explain character or effects of mass communication media ranging from Stimulus-
4802-6802. Internship. (1-3). Field studies in communication. Supervised practical work with government institution, private business, film company, radio or TV station. Written analysis of experience required. May be repeated for maxiinstructor. ( $\mathrm{S} / \mathrm{U}$ ). (0603-5)
4810-6810. Broadcast Regulation and Program Pollcy. (3) Effects of FCC and other governmental regulations on broad casting management and station operations. Topics: licens ing, renewals, content control, obscenity, fairness, politics, and copyright [0603-1]
4811-6811. Radio and Teievislon Programming. (3). Analysis of individual program formats (with examples); use of this information along with ratings and other audience research to study design of program schedules. (0603-1)
4812-6812. Communications Law In the Performing Arts. 3). Artist, performer, management contractual relationships acquisition, copyright and disposition of literary and audiousual properties: production and distribution agreements. advertising law and other matters for TV, motion picture, radio and stage businesses.
4824-6824. 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. PREREQUISITES: COMM 3823 and 3824. [0603-1]

4825-6825. Creatlve Editing of Flim and VIdeo Tape. (3).
Techniques of editing single and double system film and video tape. Overview of total post-production process, but concentrates primarily on aesthetics of continuity. PREREQUISITES: COMM 3823 and 3824 . 0605 -1]
4831-6831. Radio and Television Saies and Advertising. (3). Same as CMUS 4831). Relation of radio and television adver ising to station, network, and station representative; role of sponsors, agencies, and allied groups. (0603-1]
4842-6842. Teievision Studio Production. (3). (SPCH 3842). echniques of studio and small-format TV production, includ ing staging and
3824 (0603-8)
4851-6851. Development of Contemporary FIIm. (3). Theatrical film from 1940 to present.
4852-6852. Origins of Film. (3). Historical survey of motion pictures, from the medium's pre-history to 1940. Emphasis on narrative film.
4853-6853. Documentary Form In Flim. (3). History and criticism of documentary, educational, and industrial films. Study of non-fiction form. [0603-1]
4854-6854. Documentary Form In Broadcasting. (3). History and criticism of non-fiction broadcasting and cablecasting [0603-1]
4855-6855. Internatlonal CInema. (3). Important national film traditions in their cultural and historical contexts, focusing on filmmakers whose work has had significant influence on world cinema.
4857-6857. History of American BroadcastIng. (3). Comprehensive study of history of broadcasting industry in United States as it developed from 1895 to present. Use of primary sources. [0603-1]
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. [0603-8]
4892.6892. FIIm and VIdeo Production. (3). Problems involved in design and production of complete film and video programs. Assumes an intermediate technical proficiency and oncentrates on matters of form and content. Depending on PREREQUISITE. COMM 4824, 4825, or permission of instructor.
4922-6922. Directing the Forenslcs Program. (3). For teacher charged with responsibility of developing and directing interscholastic or intercolleglate competitive speech pro grams; historical background for such programs, organizing
techniques, recruiting, tournament direction, and other relattechniques, recruiting,
ed concerns. [1506-1]
4970-6970. Screenwriting. (3). Writing for fiction and nonfiction film and television. Basic dramatic theory, narrative structure, characterization, dialogue, adaptation and the unique demands of the audio-visual media.

## K497 DANCE (DANC)

The following 1000 level courses may be used to fulfill the University degree requirements for physical education. See Section 6. Graduation from the University, for detalls.
1821. Modern 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. [0835-1]
1822. Modern Dance II. (2). Continuation of development of modern dance techniques: emphasis on dance combinations and patterns of advanced beginner skill DANC 1821 or its equivalent. [0835-1]
1823. Adaglo. (2).
1825. Ballet I. (2). Introduction to classical ballet technique; emphasis on barre and center floor work for student with little or no previous experience in ballet. [0835-1]
1826. Baliet II. (2). Continuation of classical ballet techniques: mphasis on intermediate level adagio and allegro combina ions. PREREQUISITE: DANC 1825 or its equivalent. [0835-1]
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. (0835-1]
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. [0835-1]
1832. Tap Dance II. (2). Development of intermediate skills and knowledge of tap dance. PREREQUISITE: DANC 1831 or equivalent. [0835-1]
102. Workshop in Physical Education, Sport and Dance. (1-6). (Same as PHED 4102) 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. May be repeated with a change in topic. ( $\mathrm{S} / \mathrm{U}$ ). [0835-1]
4303. Probiems in Physlcal Education. (1-3). (Same as PHED 4303) Independent study and/or research project on selected physical education problem, is sue or
4903. Selected Topics in Physical Education. (1-3). (Same as PHED 4903) Current topics in physical education. May be epeated with change in topic and content. See Schedule of Classes for specitic tities. [0835-1)

Graduate courses in Theatre and Commumication Arts: For course descriptions and detais of the graduate program, see The Bulletin of the Graduate School.

## THE COLLEGE OF EDUCATION

## M680 EDUCATION (EDUC)

3100. Education Honors Program Colloquium. (3). Interdisciplinary collogulum on a broad education theme or topic tion Honors Council.

## CURRICULUM AND INSTRUCTION

PROFESSOR ROSESTELLE B. WOOLNER, Interim Chairman

Room 424, The College of Education Building

## COUNSELING AND PERSONNEL SERVICES

PROFESSOR ROBERT E. DAVIS, Chairman

Room 123, Patterson Building

The 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 plannıng. Students expected to investigate work settings, relate this investigation to academic programs, and utilize this information in individual career development. [0826-1]
1662. Introductlon to Guldance. (3). Principles and concepts. organization and administration, and implementation of guidance services in various settings. Personal growth and interpersonal relationship experiences to provide opportunities for gaining skills applicable to wide range of human relations satuations. [0826-1]
1663. Humanletic Interactions. (3). Human relations exercises and other personal experiences related to effective learning climates. Includes communication skills for working in groups and one to one relationships and identification and referral of persons to appropriate resources. [0826-8]

4691-6691. Practicum In Residence Hall Staff Counselling and Advising. (3). Practical experience for residence hall staff. Instruction and supervision provided. Individual and group activities in counseling, advising, communication, and leadership. Concerns such as drug abuse, family planning intormation, and student discipline. Utilizes interdepartmental disciplines. (S/U). (0826-5)
4693. Practicum In Leadershlp Development (3). Supervised experiences for developing or refining leadership skills. Practice in leader ship style, communication, motivation, negotiation, conflict resolution, and parhamentary procedures. (S/U). (0826-5]

4770-79-6770-79. Workshop In Guldance. (1-3 each). Opportunity for growth for professional in field of guidance and counseling Application and study in field designated by specific workshop number. (S/U). [0826-I]

NOTE: Not more than 9 semester hours of Workshop credit can be applied toward a degree.

4773-6773. Workshop In Group Process. (1-3).
4774-6774. Workshop In Community Services. (1-3).
4775-6775. Workshop In Student Appralsal. (1-3).
4776-6776. Workshop in Career Guldance. (1-3).
4777-6777. Workshop In Pupll Personnel Services. (1-3). 4778-6778. Workshop In Counseling. (1-3).
4779-6779. Workshop In College Student Personnel Service. (1-3).
4781-6781. Counseling Strategles for Crisls Intervention. (3). Process of crisis intervention. Study and practice in understanding crisis induced dysfunctional behavior, recognizing crisis situations, and crisis counseling procedures. nizing crisis situations, and crisis counseling procedures. disengaging crisis participants, providing follow-up and referral. [0826-8]

4782-6782. Gerontological Counseling. (3). Survey of demographic, developmental, physiological-sensory and psychosocial 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 as retirement, leisure, relocation, housing institutionalization, dying. death, and survivorship. [0826-1]
4783. Alcohol and Drug Abuse Counseling. (3). Process of counseling alcoholic and drug dependent persons. Study in modalities of treatment, philosophy of treatment, and referral. [0826-1]

The Department of Curriculum and Instruction offers majors and minors in elementary education, secondary education and a major in early childhood education.

## M650 ELEMENTARY EDUCATION (ELED)

2211. Introduction to Early Chlidhood Education. (3). Principles and practices of early childhood education programming and children's characteristics, infancy through third grade, in United States. Supervised lab experiences in varied socioeconomic day care centers, kindergartens, and primary grades. Two lecture/two laboratory hours per week. [0802-1]
2212. Communication Interaction in Early Childhood Education. (3). Application of selected principles of communication to teacher-child interaction, classroom management: teach ing strategies, and program development, infancy through third grade. Two lecture/two laboratory hours per week [0823-1]
2213. Language Arts in the Elementary School. (3). How language arts (listening. speaking, reading and writing) learned and taught. Interrelationships of these skills stressed through activities which teach children to think and communicate Laboratory experience may be required. PREREQUISITES: EDFD 2011; EDPS 2111, 3121. [0802-1]
2214. TeachIng Methods In Elementary School Mathematics. (3). Emphasis on process approach to teaching basic mathematics concepts, including resource use. Involvement with variety of materials. Laboratory experience may be requir ed
PREREQUISITES: EDFD 2011; EDPS 2111, and 3121 . (0833-1) 3261. Teaching Methods In Elementary School Sclence. (3). Emphasis on process approach to teaching basic science concepts, including area of resource use. Involvement with variety of materials. Laboratory experience may be required
PREREQUISITES: EDFD 2011; EDPS 2111, 3121. [O834-1]
2215. Teaching Methods In Elementary School Soclal Studies. (3). Emphasis on methods and materials of social studies appropriate to each developmental level of elementary school child. Laboratory experience may be required.
PREREQUISITES: EDFD 2011; EDPS 2111.3121. [0802-1]
2216. Materlals and Methods for Affective Domain In Early Childhood Education. (3). Theory and content of affective development in early childhood education, infancy through third grade; implications for designing programs. materıals and teaching strategies in the creative arts. Supervised lab experiences in varied socio-economic day care centers, nursery schools, kındergartens, and prımary grades. Two lecture hours, two lab hours per week. PREREQUISITE: ELED 3212. [0803-1]
2217. Motor Learning and Teaching Methods In Physical Education. (3). (Same as PHED 3803). Inquiry into perceptual motor and psychomotor behavior. Emphasis on variables conducive to skill acquisition and their implications for teaching [0835-1]
2218. Special Problems In Instruction (1-3). Individual investigation in area of instruction. PREREQUISITE: experience as teacher or satisfactory evidence of being qualified to beneht from course. [0829-8]
4211-6211. Comparative Study In Early Childhood Educatlon. (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. [0823-1)
2219. Materlals and Methods for Cognitive Domain In Early Childhood Education. (3). Materials and instructional techniques appropriate for infancy through third grade; cognitive development, concept formation, instructional objectives: preparation and implementation of academic content. Supercenters, nursery schools, kindergarten and primary grades. centers, nur sery schoois, kindergarten and primary grades.
Two lecture hours, two lab hours per week. PREREQUISITE: ELED 3212. [0803-1]
2220. The Teaching of Developmental Reading. (3). Survey of theoretical background for developmental reading instruction. Methods and materials used to teach sequential skills in primary and intermediate grades. Laboratory experience may be required. PREREQUISITE: ELED 3241 or classroom experience. [0830-1]
2221. Corrective Reading. (3). Diagnostic prescriptive approach to teaching reading, using both formal and informal techniques for assessing reading levels and skill needs. Laboratory experience may be required. PREREQUISITE: ELED
$4242.10830-1]$
2222. The Teaching of Modern Mathematics In the Elementary School (Grades 1-8). (3). Advanced course for prospective processes required of elementary school child. [0838-1]
2223. Home School Relationships In Early Childhood Educatlon. (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, nursery schoois, kindergartens, and primary grades. Two lecture hours, two lab hours per week. PREREQUISITES: ELED 2211.
$3212,3412,4212,10802-1]$ 3212, 3412, 4212. [0802-1]
4751-6751. Workshop in the Reading Program. (3-6). Focus
on problems of teaching reading as related to content, methon problems of teaching reading as related to content, methods, materials, and evaluation. (S/U). [0830-1]
*4811. Directed Student Teaching In the Kindergarten. (3-9). Observation of growth and development of pupils and of methods of teaching, participation in school activities, cuiminating in assumin
$(\mathrm{S} / \mathrm{U})$. [0802-5]
(S/U). 10802-5)
2224. Directed Student Teaching In the Elementary School. (3-9). Observation of growth and development of pupils and of methods of teaching; participation in school activities, culminatıng in assuming responsibility for teaching entire groups. (S/U). [0802-5]
2225. Directed Student Teaching In the Elementary School. (3.6). For student who has completed 6 semester hours or less of student teachingin elementary school and desires additional experience. (S/U). [0802-5]
*See information pertaining to requirements for admission to the student teaching program in section 7. Colleges and Degree Programs.
M675 CURRICULUM AND INSTRUCTION (CIED)
2226. Reading Skilis for University Students. (1-3). Designed to improve college students' reading skills. Clinical laboratory approach: individual diagnostic/prescriptive programs devised for 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.
2227. Analysis of Teaching. (1-3). Interaction analysis and related nonverbal behavior technıquies to describe pupilteacher classroom interchange; microteaching to identify and
analyze teaching skills. PREREQUISITE: EDPS 3121 . [O801-1] 4301. Audlo-Vlsual Instructional Materlals in Education. (3). Introduction to means for effective preparation and utilization of selected multimedia materials. Laboratory pracuce
Emphasis on implications of media for teaching. [0829-1]
2228. Teaching Reading Communication Skilis In the Con4344. Teaching Reading Communication Skills In the Con-
tent Areas. (3). Exploration of 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. [0830-1]
4701-6701. Workshop In Curriculum and Instruction. (1-9). Various areas of curriculum and elements of instruction explored. Active student participation included. See Schedule of Classes for specific topic. Repeatable for credit, but for no more than 9 semester hours for any one topic. ( $\mathrm{S} / \mathrm{U}$ ). [0801-1]
4761-6761. Aerospace Education In Schools. (3). Aerospace content and flight experiences. Emphasizes classroom application. [0834-1]
4950-6950. Selected Topics in Curriculum and Instruction. (1-3). Current topics in areas of curriculum and instruction at all levels. May be repeated with change in topic and content. See Schedule of Classes for specific topic. [0829-1]

## M670 SECONDARY EDUCATION (SCED)

3321. Materials and Methods In Secondary Art. (3). (Same as ART 4421). (0831-1]
3322. Materlals and Methods In Secondary Muslc. (3). (Same as MUSE 4203). [0832-1]
3323. Motor Learning and Teaching Methods In Physical Education. (3). (Same as PHED 3803). [0835-1]
3324. Materlais and Methods In Health Education. (3). (Same as HLTH 3102). (0837-1]
*3341. Materlals and Methods In Secondary Engllsh. (3). [0803-1]
3325. Materlals and Methods In Secondary Speech (3). [0803-1]
*3348. Materlals and Methods In Secondary Forelgn Language. (3). [0803-1]
*3351. Materlals and Methods in Secondary Mathematics. (3). [0833-1]
3326. Materlals and Methods In Secondary Blology. (3). [0834-1]
3327. Materlals and Mothods In Secondary Physical Sclence. (3). [0834-1]
3328. Materlais and Methods In Secondary Soclal Studles. (3). [0803.1]
-3372. Materlals and Methods In Secondary Psychology. (3). [0803-1]
-3376. Methods of Teaching Shorthand. (2). (3381). [0839-1] *3377. Methods of Teaching Typewriting and Office Practice. (2). (3381). [0839-1]
3329. Methods of Teaching Bookkeeping, Accounting, and Data Processing. (2). (3382). [0838-1]
*3379. Methods of Teaching General Business, Economics, Business Law, and Salesmanship. (2). (3382). (O838-1]
*3383. Materials and Methods in Secondary Home EconomIcs. (3). [0803-1]
*3384. Materials and Methods In Secondary Industrial Arts. (3). (Same as VTED 4210). (0839-1]
*NOTE: 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.
3330. Speclal Problems in Instruction. (1-6). Individual investigation in area of instruction. PREREQUISITE: experience as | teacher or satisfactory evidence of being qualified to benefit |
| :--- |
| from course | from course l0829-8]
3331. Educational Methods for Adult Education. (3). Emphasis on trends. instructional and resource materials, and instructional techniques used in adult educational programs. [0807-1]
3332. Teaching Literature for Adolescents. (3). Theories and techniques of teaching literature for adolescents at secondary level; survey and analysis of appropriate fiction, drama, and poetry for teenage reader. [0803-1]
3333. Curriculum Problems and Trends in the Secondary School. (3). Secondary school educational principles and appropriate learning activities. Includes methods of establishing relationships among school subjects, developing alternative curricula, and organization and use of units of work. [0829-1]
*4841. Directed Student Teaching In the Secondary School, (3.9). Observation of growth and development of pupils and o methods of teaching: participation in school activities, culmin ating in assuming responsibility for teaching entire groups.
(S/U). (O803-5) (S/U). [0803-5]
*4842. Dlrected Student Teaching in the Secondary School. (3 to 6). For student who has completed 6 semester hours or additional experience. (S/U). [OBO3-5]

Graduate Courses in Curriculum and instruction: For fulf details of graduate program, see The Bulletin of The Graduate School.
*See information pertaining to requirements for admission to the student teaching program in Section 7. Colleges and Degree Programs.

## EDUCATIONAL ADMINISTRATION AND SUPERVISION

## PROFESSOR FRANK W. MARKUS, Chairman

Room 202, The College of Education Building

The department offers majors at the graduate level only.
M630 EDUCATIONAL ADMINISTRATION AND SUPERVISION (EDAS)
4380. Organizational and Legal Aspects of Teaching. (1-3). Prolessional orientation focuses on effective relationship of classroom teacher to administrative and legal setting (Any one, two, or all three sections may be taken.) [0827-1]

001 COMPLETE COURSE (3)
002 THE LEGAL DIMENSION (1)
003 THE ORGANIZATIONAL DIMENSION (1)
004 THE PROFESSIONAL DIMENSION (1)

## FOUNDATIONS OF EDUCATION

PROFESSOR CARLTON H. BOWYER, Chairman

Room 404, The College of Education Building

The department does not offer a major or minor at the undergraduate level. Its primary role at the undergraduate level is to provide study in the socio-cultural and psychological foundations of education for all students seeking to qualify for
teacher certification and/or the Bachelor of Sclence in Eduteacher certification and/or the Bachelor of Science in Education degree

## M700 EDUCATIONAL FOUNDATIONS (EDFD)

2011. Foundations of Educational Thought and Practice. (3). Origins, influences. and consequences of formal schooling in selected historical and contemporary contexts. Focus on developing critical perspective of policy proposals and resulting educational designs. [O821.1]
2012. Special Problems in Cuitural Foundations of Educatlon. (1-3). Individual investigation and report of specific problem under direction of faculty member. PREREQUISITE permission of instructor. (O813-8)

4012-6012. History of American Education. (3). Development and growth of educational practices, institutions, and theories

4051-6051. Anthropology and Education. (3). (Same as ANTH 4051). Cultural transmission process, emphasis on identifying different behavioral, cognitive, and learning styles of various ethnic groups within American society and selected third world countries and U.S. subcultural groups within public education system. [0821-1]

4701-6701. Workshop in Cultural Foundations of Education. (1-3). Group study and analy sis of selected area indicated by (1.3). Group study and analy sis of selected area indicated by
subtitle printed in Schedule of Classes NOTE: No more than 9 semester hours of workshop credit can be applied toward a semester hours of worksh
degree. ( $\mathrm{S} / \mathrm{U}$ ). IO821-I]

## M710 RESEARCH METHODOLOGY AND STATISTICS (EDRS)

4511-6511. Measurement and Evaluation. (1-3). Test construction, test statistics, and interpretations and applications of standardized test results. Maximum of 3 semester hours credit may be earned. Student may enroll in complete course for three credits or in separate modules. (0825-1]) The course offered in three modules.

001 MEASUREMENT AND EVALUATION (3)
OO2 TEST CONSTRUCTION (1)
003 TEST STATISTICS (1)

> 004 STANDARDIZED TEST RESULTS (1).
> PREREQUISITE: EDRS $4511-003$.
4518. Special Problems in Educational Measurement. (1-3). Individual investigation and report of specific problem under instructor. [OB25-8] member. PREREQUISITE: permission of instructor. [0825-8]

4530-6530. Microcomputers in Education: Theoretical and Technical Foundations. (3). History, development, and status of microcomputers in education and inroduction to the technical knowledge and skills needed to oper ate microcomputers for specialized educational applications. Prerequisite knowledge for more advanced computer-related training in different education specialty areas.
4541. Fundamentals of Applied Statistical Methods. (1-3). Introduction to use of statistical techniques in education and behavioral sciences. Emphasis on practical use and interpre tation of these concepts. Maximum of 3 semester hours credit may be earned. Student may enroll in complete course for

001 FUNDAMENTALS OF APPLIED STATISTICAL METHODS (3)
002 DESCRIPTIVE STATISTICS (1)
003 PROBABILITY AND CORRELATION (1). PREREQUISITE: EDRS $4541-002$.
004 INFERENTIAL STATISTICS (1). PREREQUISITE: EDRS 4541-003.
4542. Fundamentals of Applied Research. (3). Basic research designs, problem of replicability, and methodology used in proposing and reporting research; emphasis on referencing and interpreting research literature. [0824-I]

## M720 EDUCATIONAL PSYCHOLOGY (EDPS)

2111. Human Growth and Development. (3). Life-span approach to principles and processes of human growth and development applied to educative process. (0822-1]

3121, The Psychology of Learning. (3). Psychology oflearning as applied to activities under guidance of school. PREREQUISITE: Student must have filed and not been rejected for admission to Teacher Education Program or declare no intention of securing teacher certification. [0822-1)
4108. Special Problems in Educatlonal Psychology. (1-3). Individual investigation and report of specific problem under direction of facuity member. PREREQUISITE: permission of instructor. [0822-8]
4112. The Prychology of Adolescence. (3). Physiological, sociological, and psychological factors which act as anteced ents of adolescent behavior as well as categories for observa tion of behavioral outcomes during adolescence; emphasis on elationship of specific behaviors to problems encountered by eachers of adolescents. Community facilities used for laboratory observation. [0822-1]
4114. Human Development: Maturity and Aging. (3). Survey of intellectual/cognitive changes, psychosocial and psychobological developmental issues which occur during the later portions of the life span and their implications for education.
4122. Management of Classroom Behavior. (3). Study and application of psychological principles used by educators to cope with behavioral problems and to improve social and emotional behaviors of pupils Laboratory or simulation activities along with academic study. [0822-1]

4701-6701. Workshop In Psychological Foundations of Education. (1-3). Group study and analysis of selected area indicated by subtitie printed in Schedule of Classes. NOTE: Not more than 9 semester hours of workshop credit can be applied toward a degree. (S/U). [0822•1]

## HEALTH, <br> PHYSICAL EDUCATION, AND RECREATION

PROFESSOR MELVIN A. HUMPHREYS, Chairman<br>Room 204. Field House

Majors and/or minors are offered in (1) health, (2) physical education, and (3) recreation and park administration.

## M740 HEALTH (HLTH)

1102. Personal Health. (3) Physiological basis of correct living, including fundamental biological facts; psychological aspects of human behavior as they affect individual health conduct and mental hygiene; agents of disease and modern scientific methods of controlling them. (0837-1]
1103. Introduction to Community Health. (3). Health problems requiring community action. Introduction to official and non-official health agencies whose programs designed for prevention of disease and disorders and conservation and prevention of disease and disorders and conservation and promotion of health. Activities in areas of environmental ed areas. (0837-1)
1104. Foundations of Health Sclence. (3). Historical and philosophical study of growth and development of health science. [0837-1]
1105. Materlals and Methods in Health Education. (3). (Same as SCED 3332). Methods, materials, and resources for health teaching, emphasis on improving health behavior through sound health teaching. [0837-1]
1106. The School Health Program. (3). Organization of total health program including health services, healthful school environment and health instruction. Emphasis on methods of organizing and implementing health services in schools; screening tests, detection of defects and follow-up; and promotion of health through school environment. [0837-1]
1107. Elementary School Health Education. (3). School health program involving health services, healthful school living, and health instruction. Content and materials suitable for elementary school health course stressed. [0837-1]
1108. Crittcal lssues In Health. (3). Critical and controversial issues of health explored. (0837-1]
4182.6182. Health Aspects of Gerontology. (3). Current issues and trends in gerontology on the health and quality of life of the aging.
4202-20-6202-20. Workshop in Health. (1-6) Selected phases of health and health education through group study. Indepth study in areas of interest to persons in health education and related fields. (S/U). $0837-1$ )
4203-6203. Workshop In Death and Dying. (1-3).
4204-6204. Workshop In Sexuality Education. (1-3).
4205-6205. Workshop in Drug Education. (1-3).
4302-6302. Observation In Community Health Agencies. (3). Introduction to purposes, objectives, functions and programs of community health and welfare agencies, with opportunities to visit public and private agencles and interview various representatives. [0837-1]
1109. Practicum in Public Health Education. (1-6). Field experience in public health education. Practical work under supervision of government or voluntary agencies. ( $\mathrm{S} / \mathrm{U}$ ). [0837-5]
1110. Problems in Health Education. (1-3). Independent issues. PREREQUISITE: consent of instructor. [0837-8]
4602.6602. Organization and Administration in Pubilic Health. (3). Basic functions, principles, and procedures of organization and administration as applied to health. Emphasis on relationship and responsiblities of personnel in planning, promoting, and improving and evaluating total health activities in family-centered health services. (0837-1]
4702-6702. Trends and Probiems in Public Health. (3). Historical development and current trends in community health; various needs and demands for medical care; contribution of professional personnel in providing for total health services and education. [0837-1]
4802-6802. Environmental Health. (3). Survey of complex association between environment and human productivity. health, and happiness. Environmental factors within the general framework of ecological perspective in which the interreationships of all living things to one another affect human growth and well being. [083 -1]
1111. Selected Toplca in Health. (1-3). Current topics in health. May be repeated with change in topic and content. See Schedule of Classes for exact tities. [0837-1]

## M745 SAFETY EDUCATION (SAFE)

2102. First Ald and Emergency Care. (3). (HLTH 2102). Safety skills and techniques of immediate and temporary care in event of injury or sudden illness. Successtul completion qualiies student for standard first aid and personal safety ARC certificate. [0836-1]
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 [0836-1]
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
$0835-1]$ [0835-1]
2105. Cardlopulmonary Resuscitation and Emergency LIfe Support. (3). Basic life support techniques of Cardiopulmonary Resuscitation and other emergency life support situations. Successtul completion qualifies student for certification in basic hife support course Cardiopulmonary Resuscitation (CPR) and Basic First Ald by American Red Cross. [0836-1]
2106. Instructor's Course In First Ald. (3). (HLTH 3402). Advanced consideration of first aid subject matter; orientation in methods. techniques, and teaching devices in first aid courses and practical classroom experiences. Successful instructor's and Basic Life Support / Cardiopulmonary Resusintation (CPR) Instructor's Certificates. PREREQUISITE: SAFE 2102 or ARC advanced certificate. [0836-1]
3502 Preventlon and Care of Athletic Injuries. (3). (HLTH 3502). Practical and theoretical aspects of treatment of athletic injuries in athletic training program; supplies, training table, therapeutic equipment, and techniques in conditioning and bandaging [0837-1]
4207-6207. Workshop in Driver and Trafflc 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 satety education. Attention to common elements of leaching methodology, utilization of appropriate driver and raffic safety education materials and resources and evaluative criteria. (S/U). (0836-1)
4335-6335. Driver and Traffic Safety Education 1. (3). (SCED 3335). Basic knowledge and skills to deal with problems of vehicular traftic. Defensive driving and driver improvement techniques stressed. Students desiring teacher certification must enroll concurrently in SAFE $\mathbf{4 3 3 6}$ for one semester hour in order to complete laboratory requirements. [0836-1]
4336-6336. Driver and Traffic Safety Education - Lab I. (1). Laboratory experiences dealing with classroom and in-car instruction. Required for all students desiring certification in instruction. Required for all students desiring certitication in
driver education. To be taken concurrently with SAFE 4335. driver education. To be taken concu
Two hours each week TBA. [0836-1]
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. (0836-1)
4338-6338. Driver and Traffic Safety Education - Lab II. (1). Laboratory experiences dealing with classroom, in-car multivehicle range and simulation instruction. To be taken concurrently with SAFE 4337. Two hours each week TBA. [0836-1]
2107. Selected Topics In Safety Education. (1-3). Current topics in safety education. May be repeated with change in topic and content. See Schedule of Classes for specific title. [0836-1]

M750 PHYSICAL EDUCATION (PHED)
1103. Orientation for Physlcal Education Majors and Minors. (2). Seminars in programs, career opportunities, professional societies, and related literature. [0835-1]
1001-1941. Selected Physical Activities. (2). [0835-1]
Required Physical Education courses are to be selected from the following courses.
NOTE 1: 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 majoring 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) may be repeated once for credit. All other physical activity courses listed below may be repeated when titte and content vary. Those sections designated as PHED Majors may be elected only by students majoring in Physical Education.
NOTE 4: Certain DANC courses in the Department of Theatre and Communication Arts may be used to meet the Theatre and Communication Arts may be used to
1001. Figure Control and Conditioning

001 JOGGING
002 EXERCISE AND WEIGHT CONTROL
003 CONDITIONING FOR VARSITY SPORTS
1103. See description above
1201. Adaptive Activity. (May be repeated for maxımum of 4 semester hours.)
Welightlifting
1301. Weightlifting

001 MACHINES
002 FREE WEIGHTS AND CONDITIONING
003 POWER WEIGHTLIFTING

## 1331. Camping

001 BACKPACKING
1332. Advanced Camping

001 ROCK CLIMBING
002 MOUNTAINEERING
003 CAVING
1361. Equitation

001 WESTERN STYLE
1412. Judo

001 SELF DEFENSE TECHNIQUES
1413. Advanced Judo
31. Wrestling

001 PHED MAJORS
1441. Karate
1442. Advanced Karate
1451. Boxing Skills
1461. Fenclng
1461. Fencing 001 KENDO
1501. Tennls
1502. Advanced Tennis

001 PHED MAJORS
1521. Racquetball
1522. Advanced Racquetball
1531. Handball
1532. Advanced Handball
1541. Badminton
1542. Advanced Badminton
1551. Archery
1571. Golf
1572. Advanced Golf

001 PHED MAJORS
1581. Recreational Games

001 NEW GAMES
002 PHED MAJORS
1621. Gymnastics

001 MEN'S EVENTS
002 WOMEN'S EVENTS
003 CHEERLEADING STUNTS AND TUMBLING
004 STUNTS AND TUMBLING
005 PHED MAJORS
Advanced Gymnastics
001 MEN'S EVENTS
002 WOMEN'S EVENTS
1651. Riflery

001 HOME FIREARM SAFETY AND MARK SMANSHIP
1711. Beginning Swimming
1712. Elementary SwImming
1713. Intermedlate SwImming

001 PHED MAJORS
*1722. Swimming - Lifesaving
OO1 CONDITIONING THROUGH SWIMMING
*1761. Springboard Diving
-1771. Scuba
*1772. Advanced Scuba
${ }^{-1781 .}$ Boating and Small Craft
001 KAYAKING
002 RAFTING
003 SMALL BOAT CRAFTING
004 SAILING
005 CANOEING
1811. Rhythms for Elementary School
†1812. Square and Round Dance I
$\dagger$ 1813. Folk and Soclal Dance I
001 PHED MAJORS
1921. Basketball

001 PHED MAJORS
1922. Volieyball - Basketball
1923. Volleyball

001 PHED MAJORS
1931. Soccer and Fleldsports
1941. Track and Field Events

001 PHED MAJORS
*The prerequisite for these courses is Physical Education 1713
tThe descriptions for these courses follow immediately below.
1812. Square and Round Dance I. (2). Introduction to Amerlcan square, round and contra dance. [0835-1]
1813. Folk and Soclal Dance I. (2). Introduction to international folk dance and American baliroom and social dance. (0835-1)
1814. Folk and Soclal Dance II. (2). Expansion on repertorre of international folk dances and American ballioom and social dances of increased difficulty and challenge. [0835-1]
2003. Analysls of Movement. (3). Understanding how and where body moves and what body can do. Opportunittes to demonstrate understanding of mechanical principles and concepts of movement and to apply these concepts to sport. dance, gymnastics, and aquatics. Laboratory and lecture. (0835-1)
2103. Fundamentals and Techniques of Football. (2). Coaching techniques, training and conditioning methods appropriate to football. [0835-1)
2203. Fundamentals and Technlques of Basketball. (2). Coaching techniques, training and conditioning methods appropriate to basketball. (0835-1]
2303. Fundamentals and Techniques of Track and Fleld. (2). Coaching techniques, training and conditioning methods appropriate to track and field. [0835-1]
2403. Fundamentals and Technlques of Baseball and Softball. (2). Coaching techniques, training and conditioning methods appropriate to baseball and softball. [0835-I]
2903. History and Princlples of Physical Education. (3). Origins and nature of modern physical education as developmental experience and medium of education. Scientific and philosophical principles of physical education. [0835-1]
3103. Materlals and Methods in Team Sports. (3). Materials, methods, teaching, and coaching techniques of team sports. 1921 and 1923 . [0835-1]
3203. Materials and Methods In Individual Sports. (3). Materials, methods, and teaching techniques of life-time sports. Laboratory experience required. (0835-1]
3303. Adapted 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. [0835-1]
3403. Kinesiology. (3). Analysis of bodily movements in term of the muscular forces operating on bones. PREREQUISITES BIOL 1631 and 1632. (0835-1)
3503. Materlals and Methods of Dance. (3). Basic theory, participation, techniques, materials, and teaching methods in rhythmic activities from grades 7 through 12. Laboratory
experiences required. PREREQUISITE. PHED 1813. (0835-1) 3703. Physiology of Exerclse. (3). Scientific basis of physiological principles on various systems and organs of the body Pertormance and training PREREQUISITES: BIOL 1631 and performance and training. PREREQUISIES: BIOL 1631 and
1632 . (O835-1]
3803. Motor Learning and Teaching Methods in Physical

Education. (3). (Same as SCED 3331 and ELED 3803). Inquiry
into perceptual motor and psychomotor behavior. Emphasis on variables conducive to skill acquisition and their implications for formulating teacher behavior. (0835-1]
3806. Physical Education for the Elementary School. (3). Materials and methods for physical education in grades 1 through 6 , including philosophy, program planning, and practical experience gained through observing and directing play activities for children. Laboratory periods to be arranged. [0835-1]
3816. Gymnastics In the Elementary and Middile School. (3). Scope, content, and methodology of the gymnastics program How to teach development of efficient and skilled use of body in practical situations, when working alone and with others, on floors and on apparatus. Laboratory experiences included. PREREQUISITES: PHED 2003, 1621 (O835-1]
3826. Educational Dance in the Elementary and MIddle School. (3). Scope, content, and methodology of rhythms and dance program. Emphasis on creative and aesthetic values therein, and integration and correlation with other arts in school curriculum. Observations and laboratory experiences included. PREREQUISITES: PHED 2003,1813. [0835-1]
3836. Games and Sport Activitles for the Elementary and Middle School. (3). Understanding of importance of variety of games, sports, and manipulative activities and learning of skills, progressions and teaching methods appropriate for games and sports. Lecture-laboratory experiences included.
PREREQUISITE: team sports activity course. $10835-1]$ PREREQUISITE: team sports activity course. [0835-1]
3846. Planning the Elementary and Middle School Programs. (3). Current and traditional theory in curriculum development, selection of content, program development and purchase and care of supplies and facilities. Observation and laboratory experiences included
$3826,3836$. $0835-1]$
4102-6102. Workshop in Physical Education, 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 (S/U). [0835-1]
4204. Tests and Measurements In Physlcal Education. (3). Study of various tests in physical education, including uses and interpretation of elementary statistical techniques. [0835-1]
4303. Problems In Physical Education. (1-3). Independent study and / or research project on selected physical education problem, issue or concern. PREREQUISITE: permission of instructor. [0835-8]
4503. Organization and Administration of Physical Educatlon. (3). Administrative problems of physical education, including curriculum, facilities, buying and caring for equipment, general class organization, and organization of intramural program. (0835-1)
4613-6613. Management and Care of Athletic Facilitles 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. [0835-1]
4903. Selected Topics In Physical Education. (1-3). Current topics in physical education. May be repeated with change in opic and content. See Schedule of Classes for specific titles [0835-1]

## M760 RECREATION (RECR)

2105. Introduction to Recreation and Parks. (4). History and development of recreation and park movements; nature of ecreation experience and its importance to the individual and nfluence of leisure on society. Private, public, voluntary, military, and commercial delivery systems for recreation and park services. [2103-1)
2106. 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, organization, program, and membership of principal national youth agencies. [2103-1]
2107. Camp Counseling. (2). Orientation to camping as practiced in America today; problems faced by camp counselor and background to ald counselor in performance of duties. [2103-1]
2108. Philosophy and Principles of Recreation. (2). Work eisure, play, and recreation; attention to sound principles of recreation. [2103-1)
2109. Park and Recreation Facilities. (2). Study of planning. development, and maintenance of parks and recreation facilities. Includes inspection. comprehensive recreation surveys and planning a layout. (2103-1]
2110. Program Planning In Recreation. (4). Program fields in elation to programming principles, planning objectives, structural organization, purposes and and for special groups, and program evaluation ties, prog
[2103-1]
2111. Resource Management In Recreation. (4). Manage ment, operation and maintenance of areas and facilities within field of recreation and parks. Includes identification, acquisttion, allocation, development and management of land and water resources [2103-1]
2112. Camp Administratlon. (2). Organization and adminis-
tration of camps and camping programs; emphasis on program planning. selection and training of staft. [2103-1]
2113. Outdoor Recreatlon. (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. [2103-1]
2114. Outdoor Education. (2). Philosophy, modern trends, administration, program content, and methods of leadership and practice in leadership skills. (2103-1)
2115. Leadership Seminar In Recreation. (3). Dynamics of leadership; theories, principles, and practices of leadership;
research in leadership, issues and problems of working with research in leadership, issues an
individuals and groups. [2103-1]
2116. Recreatlonal Leadership. (3). Development of skills and techniques necessary for succ
and park programs. [2103-1]
4205-6205. Supervised Clinical Tralning In Recreatlonal Therapy. (6). Principles and methods of therapeutic recreation in clin
[2103-1]
2117. Fleld Problems in Recreatlon. (1-6). Selected problems in areas of recreation and parks through individual and group
field experience. PREREQUISITE: permission of instructor. field expe
[2103-5]
4405-6405. Organization and Administration of Recreation. (3). Community organization, its philosophy, foundation and principles. Selected administrative practices that relate to successtu
(2103-1]
2118. Recreation Surveys. (3). Program observation, analysis, need assessment and evaluation. [2103-1]
2119. Internship In Recreation and Parks. (3-9). Professional field experience including situations in which student has opportunity to relate theory to practical experien
UISITE: Consent of instructor. (S/U). (2103-5)
4705.6705. Workshop In Recreation and Parks. (1-6). Selected phases of recreation, parks or leisure studies. Indepth study of areas of interest and need for persons in change in topic. (S/U). (2103-1)
2120. Selected Topics In Recreation, Parks, and Lelsure Studies. (1-3). Current topics in recreation, parks, and leisure
studies. May be repeated with change in topic and content. studies. May be repeated with change in topic and
See Schedule of Classes for specific title. 12103-11

## HOME ECONOMICS AND DISTRIBUTIVE EDUCATION

## PROFESSOR DIXIE R. CRASE, Interim Chairman

Room 404, Manning Hall

A co-operative relationship exists with the Fashion Institute of Technology in New York City, whereby 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

M770 GENERAL HOME ECONOMICS (HMEC)
1100. Home Economics as a Professlon. (1). Scope of Home Economics, educational preparation, professional orientation and research pertinent to the field. (S/U). PREREQUISITEHome economics major. [1301-1]
3393. Occupational Education in Home Economics (3). History, philosophy, and organization of Home Economics Occupational Education; emphasis on instructional strategies and
evaluation through classroom and on-site participation. PREevaluation through classroom and
REQUISITE: HMEC 3383. (1301-1)
4100. Senior Seminar In Home Economics. (1). Scope and direction of current research and trends in home economics: roles of modern woman and understanding of professional ethics required of home economist. PREREQUISITE: senior standing in home economics. (1301-1)
4200. Readings in Home Economics. (1-3). For senior home economics majors; in-depth reading or research in area of majors only. (1301-8)
4900-6900. Home Economics Study Tour. (1-3). On-thescene knowledge about specific academic areas of specialization within home economics. PREREQUISITE: permission of
instructor May be repeated with 3 hours maximum credit. instructor
[1301-9]
CHILD DEVELOPMENT AND FAMILY RELATIONSHIP (HMEC)
1101. Personal Development and Human Relations. (3). Individual and group adjustment. influences contributing to
successful marriage and family life. [1305-1] successful marriage and family life. [1305-1]
2101. Infant and Child Development. (3). Affective, cognitive,
and psychomotor development of the child from conception and psychomotor development of the child from conception to eight years of age. guided observation of infants and young children. (1305-1)
4101-6101. Nursery School Curriculum. (3). Application of child development principles to program planning, infancy through four years of age. 10823-1
4201. Preparation For Marriage. (3). Courtship, marriage,
and achievement of satisfaction in family life PREREQUISITE HMEC 1101. [1305-1]
4301. Nursery School Practicum. (3). Participation in and direction of various nur sery school activities. One conference. (S/U). (O823-5]

## FOODS, NUTRITION AND INSTITUTIONAL MANAGEMENT (HMEC)

2102. Food Selectlon and Preparatlon. (3). Principles underlying selection and preparation of foods with introduction to planning and serving of meals. Open tofres
four laboratory hours per week. (1306-1]
2103. Elementary Nutritlon. (3). Nutritive value of food. factors influencing body food requirement and health. Open to freshmen. [1306-1]
2104. Meal Preparatlon and Table Service. (3). Nutrition fundamentals in individual and family dietaries, meal planning. marketing and table service for various occasions. One lecture, four labora
2102 . (1306-1]
2105. Institutional Management and Equipment. (3). Observation and practice in handling problems of organization and management of quantity food service. (1307-1]
2106. Catering. (3). Special food preparation and service for parties, dinners, and teas; historical background of sectional foods in United States with laboratory preparation. SIX lecture/ laboratory hours per week. PREREQUISITES: HMEC
4502 and 3602 . 1306 -1)
2107. Food Production (Practicum). (3). Personnel manage-
ment, cost control, and quality control in specific organizament. cost control, and quality control in specific organizations. Experience in approved food services. One lecture, four laboratory hours per we
3602 . (S/U). (1306-5)
2108. Dlet Therapy. (3). Dietary problems applicable to prevention and treatment of disease in which therapeutic diets are of major importance. PREREQUISITES: BIOL 1631, HMEC 2202, 4402; or permission of instructor. [1306-1]
2109. Advanced Nutrition. (3). In-depth study of nutrients and body utilization and discussion of current issues in nutri-
tion. PREREQUISITES: HMEC 2202, CHEM 1111, 1112. [1306-1]
4502-6502. Quantity Cookery and Purchasing. (3). Principles of procuring, storing, producing and serving foods in volume. Planned work experience in selected quantity food operations. PREREQUISITES: HMEC 3302, 3602. (1307-1]
4602-6602. Community Nutrition I. (3). Nutritional problems and practices of various ethnic, age and socio-economic groups. Community and agencies concerned with meeting
these needs. PREREQUISITE: HMEC 2202 or permission of instructor. (1306-1)
4702-6702. Practicum In Community Nutrition. (3). Observation and participation in nutrition education programs of local and state agencies. PREREQUISITE: HMEC 4602 or permission of instructor (1306-5)
2110. ExperImental Foods. (3). Principles underlying experimental approach to study of chemistry, composition, structure, and properties of foods with demonstration of effects of various ingredients in commonly prepared foods. PREREQUISITES: HMEC 2102, CHEM 1111.3311.

## HOME MANAGEMENT (HMEC)

4103. Family Economics (3). Management of family resources as they relate to satisfying home and family life. Includes problems in consumer goods and services. (1305-1] 4503. Home Management Laboratory. (3). Practical application of theories of decision-making and group dynamics involved in management of resources of a home. PREREQUI-
SITE: HMEC 4103. (1304-1]

HOUSING, HOME FURNISHINGS, AND RELATED ART (HMEC)
1104. Art In Everyday LIfe. (3). Elements of art and principles of design as they relate to practical aesthetics of living.
$(1301-1]$
2004. Technical Skills for Home 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 ecoconcepts of depicting home furnishing interiors. (1302-1]
3004. Purchase and Use of Home Furnishings. (3). Principles of design and color theory applied to selection and arrangement of house and its furnishings. Lab experience required PREREQUISITE: HMEC 1104. [1302-1]
3204. Housing and Equipment. (3). (4203). Housing as it relates to conditions of family living. Principles underlying con-
struction, use, and care of household equipment. (1305-1) 3704. Soclo-Economic Aspects of Housing/Government and Housing. (3). Analysis of family housing needs and present social and economic conditions affecting housing, building processes, furnishings, and role of government in housing. PREREQUISITE: HMEC 1104. [1399-1]
4204-6204. Furnishings Problems and Presentatlons. (3). Problems in planning, coordinating, and purchasing of home furnishings. One lecture, three laboratory hours per week. PREREQUISITE: HMEC 2004, 4304, (1302-1)
4304-6304. Trends In Residential Furnishings. (3). (3104). Major trends and influences on contemporary residential Major trends and influences on contemporary residential
furnishings as these affect home furnishings merchandising furnishings as these affect home furnishings merchandising.
PREREQUISITE: HMEC 3004. [1302-1]
4600. Seminar In Merchandising for Home and Fashlon. (6). Concentrated study of factors influencing fashion and home furnishings merchandising, patterns of production, distribution, buying and promotion. PREREQUISITE: All major subject matter courses must be completed before the professiona semester COREQUISITE. Fashion concentration- HMEC 4705: Home Furnishings concentration - HMEC 4804.
4804. Home Furnishings Merchandising Practicum.* (6). Eight weeks of full-time work experience in Home Furnishings Merchandising in approved business establishments. StuMents may not enroll for more than total of 12 semester hours dents may not enroll for more than total of 12 semester hours
during professional semester. COREQUISITE: HMEC 4600. ( $\mathrm{S} / \mathrm{U}$ ) (1302-5)

## TEXTILES AND CLOTHING (HMEC)

1105. 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. [1303-1]
1106. Introduction to Fashlon Merchandising. (3). Introduction to the types of enterprises, activities, operations, interre lationships, and practices in fashion industry. Emphasis on merchandising terminology and techniques. (1303-1)
1107. Clothing Construction. (3). Fundamental principles of clothing construction, fitting and handling wool, silk, and synthetic fabrics. One lecture, four laboratory hours per week PREREQUISITE: HMEC 1105. (1303-1]
1108. Consumer Problems in ClothIng. (3). Clothing selection and buying for men and women; emphasis on individual needs and economic problems involved. (1303-1)
4305-6305. Trade Construction of Clothing. (3). Clothing construction based upon industrial trade methods and tech niques, in logical sequence, in garment construction. PREREQUISITE: HMEC 2205 [1303-1)
1109. Internshlp In Clothing Services. (3). For teachers in areas of Occupational Clothing Services. Emphasis on utilizing knowledge and skills in clothing area in industrial setting,
PREREQUISITE. All Occupational major subject matter courses must be completed previous to internship. (S/U). [1303-5]
4405.6405. Textlles. (3). (3305). Selection, use and care of textiles related to properties of fibers, yarn structures, fabric construction, and finishes. Morphology and chemistry of fibers, finishes, dyes, fabric maintenance and procedur
involved in fiber, yarn, and fabric identification. [1303-1]
4505.6505. Talloring. (3). Selection and construction of tai lored wool garments, using various tailoring techniques. PRE REQUISITE: HMEC 1105 and 2205 [1303-1]
1110. Seminar In Merchandising for Home and Fashlon. (6). Concentrated study of factors influencing fashion and home urnishings merchandising; patterns of production, distribu tion, buying and promotion. PREREQUISITE: All major subject matter courses must ite mpled belore tore prolessional 4705 : Home Furnishings concentration - HMEC 4804.
1111. Fashlon Marketing Practicum.* (6). Eight (8) weeks of ull-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/U).

## M772 DISTRIBUTIVE EDUCATION (DTED)

The Department of Home Economics/Distributive Education offers a major and minor in Distributive Education to prepare eacher-coordinators for vocational marketing and distributive education programs in high schools, technical institutes and community colleges.
(Students majoring in Marketing, or with concentration in Fashion Merchandising or Home Furnishings Merchandising may secure certificate to teach Distributive Education through this department).
1111. Orientation to Distributive Education. (1). Scope of careers in distributive education (teaching marketing, merchandising and related management); educational prepara tion needed, professional orientation, and field observations.
(0838-1]
3010. Cooperative Occupational Education. (3). (Same as VTED 3010). How work experience coordinated with related in-school instruction used to provide career preparation in marketing, office, industry, home economics, health and other fields of employment. [0838-1]
4611-6611. Princlples and Phllosophy of Vocational Educatlon. (3). (Same as VTED 4611). History, philosophy, principles and objectives of vocational education; curriculum problems ontribution of vocational-technical education to general ed 4621. VIsual Merchandising. (3). Theory and practice in visua merchandising (display): especially retail interior and window display techniques, display creation, planning promotions and determining budgets. One lecture, four laboratory hours per week (0838-1)
4630. Materlals and Methods in Distributlve Education. (3). Instructional materials and techniques used in high school and post-high school marketing and distributive education classes. (Fall semester only). (O838-1]
4641-6641. Techniques of Coordination of Cooperative Occupatlonal Education. (3). (Sarme as VTED 4641). Selecting raining agencies; developing job analyses, selecting and brief ing training supervisor: selecting and working with advisory UISITE. DTED 4630 or consent of instructor. [O838-1]
4651. Basic Problems In Distributive Education. (1-3). Inde pendent study of current trends and problems related to marketing and distributive education; viewpoints of leaders in the field; attention to problems of students enrolled. [0838-8] 4680-6680. Development and Supervision of Vocational Student Organizatlons. (3). Aims and objectives of vocationa dent Organizations. (3). Aıms and objectives of vocational studen, their development, curricular integration, operation and evaluation. [O838-1]
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 education teacher-coordinators in improvement of teaching-learning processes contamed in three phases of program operation:
classroom instruction, on-the fob training and youth organizaclassroom instruction, on-the lob training and youth or ganiza-
tion advisement. May be repeated when topic varies. (S/U). [0838-1]
4700-6700. Distributive Education Study Tour. (1-3). Opportunity to gain on-the-scene knowledge about specific areas of instruction within marketing and distributive education. May be repeated; however. student should consult with major advisor to determine maximum credit which may be applied to degree pr
[0838-9]
-4871-6871. Student Teaching in Distributive Education. (3.9). Observation of operation of high school marketing and distributive education program and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching and coordinating entire groups.
PREREQUISITE: DTED 4630 . (Fall semester only). (S/U). PREREQUI
[0838-5)
Graduate courses in Distributive Education: For details of the graduate program, see The Bufletin of The Graduate School.

* See information pertaining to requirements for admission to the student teaching program in section 7, Colleges and Degree Programs.


## SPECIAL EDUCATION AND REHABILITATION

PROFESSOR WILLIAM M. JENKINS, Chairman

Room 112, The Special Education Building

The Department of Special Educatıon and Rehabilitation 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. [0808-1]
2001. Independent Study In Speclal Education. (1-6). Opportunity for self-directed study and/or research under supervision. PREREQUISITE: consent of department. [0808-8]
2002. Observation and Particlpation In Speclal Education. (1-3). Overview of public, private, and institutional facilities available in special education. Short term observations of and participation with exceptional learners with opportunity for evaluation. (S/U). COREQUISITE
3201 or 3401 or 3501 . [O808-1]
2003. Selected Toplcs In Special Education and Rehabilltation. (1-3). Investigation in selected area(s) of special education and rehabilitation. May be repeated with change of topic. [0819-1]
2004. Methods, Materlals and Curriculum of the Exceptional Learner I. (1-3). Curriculum, methods and instructional materials applicable to special educational needs of mentally retarded, learning disabled, and emotionally disturbed at primary, intermediate, and secondary levels. Emphasis on
applied programming techniques and implementation of remediation procedures. PREREQUISITE: SPER 2000. COREQUI SITES: SPER 3013 and 3014 [0808-1]
2005. Practical Application of Special Education Methods and Materlals 1 . ( $1 \cdot 3$ ). Planning and implementation of special education methods and materials with exceptional children. (S/U) PREREQUISITE: SPER 2000; COREQUISITES: SPER 3012 and 3014. [0808-5]
2006. Assessment of Exceptlonal Persons. (3). Tests and mea- surements used with exceptional persons, including psychological, social and other assessment instruments used in educational and vocational evaluation of exceptional persons. PREREQUISITE: SPER 2000; COREQUISITES: SPER 3012 and 3013 . [0808-1]
2007. Introduction to the Education of Children with Emo tional Problems. (1 or 3). Historical developments and cur rent practices in identification and treatment of children with emotional problems. Emphasis on educational phase of treat ment, including characteristics of children, role of teacher, and curricula planning. PREREQUISITE: SPER 2000; COREQUISITE: SPER 3003 (1 semester hour). [0816-1)
2008. Introduction to Children with Learning Disabilities. (1 or 3). Historical developments and current practices in identi fication and treatment of children with learning disabilities Emphasis on diagnosis, management, and education of chil dren with learning disabilities; and relationship of these concepts to academic failure. PREREQUISITE: SPER 2000. COR-
EQUISITE: SPER 3003 ( 1 semester hour). (O818-1) EQUISITE: SPER 3003 (1 semester hour). [0818-1]
2009. Nature of Mental Retardation. (1 or 3). Historical developments and current practices in identification and treatment of mentally retarded children. Multiplicity of impli cations of mental retardation as they relate to impairment in growth, maturation, and learning; and impact of these deficits on individual, on his family, and on society. PREREQUISITE
SPER 2000; COREQUISITE: SPER 3003 (1 semester hour) [O810-1]
2010. Programming for Tralnable Mentally Retarded Children. (3). Diagnosis, classification, development of teaching materials and techniques, and interaction with trainable mentally retarded learners. PREREQUISITE: SPER 2000. [0810-1)
2011. Introduction to Dlsabling Conditions and Their HelpIng Professlons. (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. (1222-1)
2012. Introduction to Vocational Evaluation of the Disabled/ Handicapped Citizen. (3). Historical, philosophical and theoretical bases and present status of vocational evaluation Survey of vocational evaluation process, principles, tech-
niques and procedures, innovative methodologies and future niques and proce
trends. [1222-1]
2013. Introductlon to Work Adjustment of the Disabled/ Handicapped Citizen. (3). Historical and philosophical perspective of treatment process of work adjustment. Emphasis on adjustment of handicapped individual to work, personal, and social situations and techniques to enhance adjustment process. [1222-1]
2014. Trends and Issues In Speclal Education. (3). Current trends and issues such as mainstreaming, law and the handicapped citızen, working with parents of handicapped and families. [0808-1]
2015. Methods, Materlals and Curriculum of the Exceptional Learner II. (3). Curriculum, methods, and instructional materials applicable to needs of gifted, crippled, and learners with special health conditions at primary, intermediate, and sec-
ondary levels. PREREQUISITES: SPER 3012, 3013, 3014 COREQUISITE: SPER 4013. (0808-1)
2016. Practical Appilcaton of Special Education Me thods and Materlals II. (3). Opportunity for planning and implementation of educational methods and materials with exceptional learners. (S/U) PREREQUISITE: consent of instructor. COREQUISITE: SPER 4012. [0808-5]
-4541. Student Teaching In Speclal Education. (3-9). Orientation, observation, and teaching with handicapped children May be repeated for a maximum of 15 hours. (S/U)
4801-6801. Workshop In Speclal Education and Rehablititstion. (1-9). For the professional in freids of special education and rehabilitation. Intensive study of current methodologies, research, issues and trends in various areas of exceptionality and disability. See Schedule of Classes for specific topic. May be repeated when topic varies. (S/U). (0808-1)
2017. Soclal and Psychological Adjustments to Disabling
Conditions. (3). Social and psychological ramifications of disabling conditions. Theories dealing with adjustment to physical disabilities explored and extrapolated to mental and social disabilities. [1222-1]
2018. Helping and Human Relationshlps with Disabled Persons. (3). Focus on examining theories of human behavior and helping process as it relates to working with disabled persons. Theories of Combs, Carkhuff and others. (1222-1)
2019. Instructlonal Methods In Rehabilitation. (3). Theoretical background and practical application in vocational evaluation, vocational exploration, and teaching job skills. [1222-1]
2020. Utilizing Client Information In Rehabilitation. (3). Use of biogr aphical, psychological, medical and job information for case planning. (1222-I)
2021. Dlagnostic Vocatlonal Evaluation for the Dlsabled/ Handicapped Citizen. (3). In-depth study of processes, principles and techniques used to diagnose general assets and limitations of handicapped/disabled individual. Emphasis on use of biographical or referral data, evaluation interview and rationale underlying selection and use of psychological tests.
PREREQUISITE: consent of instructor. [1222-1]
2022. Prognostic Vocational Evaluation for the Disabled/ Handicapped Cltizen. (3). Processes, principles and techniques used to determine and predict work behavior and vocational potential of handicapped/disabled individual. Selection and use of appropriate occupational exploration programs, work samples, situational tasks, simulated work experience and on the job tryouts. PREREQUISITE: SPER 4913 or consent of instructor. [1222-1]
2023. Prescriptive Vocational Evaluation for the Disabled/ Handicapped Citizen. (3). Techniques of synthesizing information gained in SPER 4913, 4914. Interpretation of data through formal staff conference, vocational counseling and follow-up procedures. PREREQUISITE: SPER 4913 and SPER 4914 or consent of instructor. [1222-1]
2024. Work Sample Development for the Disabled/Handicapped Citizen. (3). Development, 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 [1222-1]
2025. Practicum In Rehabilitation. (3-6). Practical experiences in various rehabilitation settings. (S/U). PREREQUISITE: SPER 3901 or consent of itistructor. (1222-5)
Graduate Courses in Special Education: see The Bulletm of The Graduate School.

- See information pertaining to the requirements for admis sion to the student teaching program in section 7. Colleges and Degree Programs.


## THE HERFF COLLEGE OF ENGINEERING

## Q840 ENGINEERING CORE COURSES (ENGR)

1001. Introduction to EngIneering. (1). History and nature of engineering as profession, including industrial practices, academic programs, and career planning. Use of logic as applied to engineering problems and systems. One lecture hour per week, PREREQUISITE: freshmen having engineering inclinations. (0901-1)
1002. Engineering Computer Programming. (2). Introduction to role of digital computer in engineering systems; applications of computer systems to analysis and design; introduction to computer programming languages. One lecture, three laboratory hours per week [0901-I]
1003. Engineering Graphics (2). Role of graphical communication in engineering practice; sketching and drafting tech-
niques used in design, elements of descriptive geometry. One niques used in design, elements of descriptive geometry. One
lecture/three laboratory hours per week. [0901-1]

## CIVIL ENGINEERING

PROFESSOR THOMAS S. FRY, Chairman
Room 104A, Engineering Building
Q800 CIVIL ENGINEERING (CIVL)
2131. Statics. (3). Analysis of two and three dimensional systems, centroids and moment of inertia; friction. Three lecture hours per week COREQUISITE: PHYS 2511. [O908-1]
3101. Computer Methods In Clvil EngineerIng. (3). Civil engineering applications of fundamental methods of numerical analysis; advanced programming techniques. Three tec-
ture hours; per week. PREREQUISITES: ENGR 1011: MATH ture hours per week. PREREQUISITES: ENGR 1011; MATH
3391 . (O701-3)
3111. Field Measurements. (3). Principles of field measurements; earthwork calculations; alignment of curves; error analy sis. Two lecture, three laboratory hours per week. PRE REQUISITE: ENGR 1011. MATH 2321 (0901-1]
3121. Structural Analysis I. (3). Statically determinate structural systems; analytical and numerical solutions; influence lines, movingloads. Three lecture hours per week. PREREQUISITE: CIVL 2131. (O908-3)
3122. Structural Analysls II. (3). Analytical and numerical solutions for statically indeterminate structures. Three lecture hours per week. PREREQUISITES: CIVL 3121, MECH
3322 . 0908 -3] 3322. [0908-3]
3131. Deslgn of Steel Structures. (3). Current design concepts for structural steel members and their connections Three lecture hours per week. PREREQUISITES: CIVL 3121. MECH 3322. [O908-3]
3135. Propertles of Concrete. (3). Study of aggregates, aggregate benefaction, properties of portland cement, mix design, testing of plain concrete, quality control of concrete and statistical methods for evaluating concrete test data. Two lecture, three laboratory hours per week. PREREQUISITE.
MECH 3322 [O908-1] MECH 3322 [0908-1]
3136. Bituminous Materials EngIneering. (3). Source, manu facture, processing, types, constituents, tests, chemical behavior, specifications and uses of bituminous materials and
aggregates in pavement mix design and construction. Two lecture, three laboratory hours per week. PREREQUISITE: MECH 3322 . (0908-1)
3141. Engineering Economics. (3). Application of economics and decision theory to engineering alternatives in planning. developing, constructing, and managing engineering projects.
Three lecture hours per week. PREREQUISITE: ECON 2110. [0901-1]
4131-6131. Intermediate Steel Design. (3). Design of plate girders and composite beams; moment connections; building design. Three lecture hours per week. PREREQUISITE: CIVL 3131. [0908-1]
4135. Reinforced Concrete Design. (3). Strength analysis and design of reinforced concrete members; floor systems: cur rent code provisions. Three lecture hours per week. PREREQ UIITE: CIVL 3122. [O908-I]
4136-6136. Intermediate Relnforced Concrete Design. (3). Design of two-way slab systems; column design including length effects; integrated building design using current code
provisions. Three lecture hours per week. PREREQUISITE: provisions. Three lecture hours per week. PREREQUISITE CIVL 4135 (0908-1)
4141. Water and Wastewater EngIneerIng. (3). Water and wastewater treatment fundamentals; water quality and treat ment; physical, chemical biological treatment of wastewaters.
design of water and wastewater treatment units; solid waste design of water and wastewater treatment units; solid waste management. Three lecture hours per week. PREREQUISITE
MECH 3331 . $0908-1$ ] MECH 3331. [0908-1]
4143.6143. Environmental Engineering I. (3). Basic physical chemical treatment concepts for water and wastewater with
well as derivation of design data through laboratory studies SITE: senior standing or consent of instructor. [0922-1]
4144. Environmental Engineering II. (3).. Basic biological
treatment concepts for wastewater with laboratory demontreatment concepts for wastewater with laboratory demon- stration of unit operations as well as derivation of design data stration of unit operations as well as derivation of design data through laboratory studies. Two lecture/three laboratory
hours per week. PREREQUISITE: senior standing or consent of instructor. [0922-1]
4148. Hydraulics and Hydrology. (3). Quantification of precip itation and runoff, flood routing, open channel flow, culver and sewer design, pipe network distribution systems, pumps and groundwater hydrology. Three lec
PREREQUISITE: MECH 3331. [0922-3]
4151. Soll Mechanics. (4). Physico-chemical basis of soil structure; identification and classification; permeability, com pressibility, and shear strength. Three lecture, three laborato ry hours
[0921-1]
4152-6152. Applled Soll Mechanics. (3). Applications of theory to design of building foundations, retaining walls, and
hydraulic structures. Three lecture hours per week. PREREQhydraulic structures. Three
UISITE: CIVL 4151 . [0921-1]
4161. Transportation Systems EngIneering. (3). Development and function of transportation systems; operationa control and characteristıcs; system coordinatıon, traffic flow
and patterns. Three lecture hours per week. PREREQUISITE: and patterns. Three lecture hours per week.
senor standing in civil engineering. (0908-3)
4162-6162. Traffic EngIneering. (3). Traits and behavior patterns of road users and their vehicles. Includes traffic signs and signals, pavement markings, hazard delineation, capacity, accidents and parkir
instructor. (0908-3)
4164-6164. Advanced Surveying. (3). Elements of route loca tion and design; emphasis on horizontal and vertical alignment, curvature, gradient and sight distance. Two lecture,
three laboratory hours per week. PREREQUISITE: CIVL 3111 . (0908-1)
4171. Construction Engineering I. (3). Planning, estimating, 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 lecture hours per week. COREQUISITE: CIVL strategy, Three
$3141 .(0908-1]$
4172. Construction Engineering II. (3). Selection of equip ment for heavy construction projects; cost analysis, produc ment for heavy construction projects; cost analysis, produc-
tivity, procedures and safety aspects of construction operations; emphasis on heavy construction project synthesis. Two lecture, three laboratory hours per week PREREQUISITE CIVL 4171 . [0908-1
4173. Constructlon Contracts and Specifications. (3). Principles of contract law as applied to heavy construction engineering; legal problems in preparing and administering construc tion contracts; varieties of construction contracts specification organization and interpretation; engineer-client
relationships. Three lecture hours per week PREREQUISITE: relationships. Three lecture hou
consent of instructor. [0908-1]
4174. Quality Control In Heavy Construction. (3). Development of quality control systems for heavy construction industry; quantitative and statistical techniques for establishing contract compliance, quality assurance sampling, testing, and hours per week. PREREQUISITE: consent of instructor [0908-1]
4191. Civil Engineering Projects. (1-3). Independent investigation of a Civil Engineering problem in consultation with instructo
[0908-8]

## ELECTRICAL ENGINEERING

PROFESSOR THOMAS DEWEY SHOCKLEY, JR., Chairman

Room 206B, Engmeermg Bullding

Q820 ELECTRICAL ENGINEERING (ELEC)
2201. Circuit Analysis I. (3). Fundamental properties of elec trical circuits, basic concepts and circuit elements; analysis methods and network theorems; sinusoidal steady-state methods and network theorems, Introduction to transients. Three lecture hours per
response; int response: introduction to transients. Three
week. CO-REQUISITE MATH 2322. [0909-1]
2203. Circuit Analysis Laboratory. (1). Introduction to utiliza tion of meters, oscilloscopes, oscillators, power supplies and related test equipment in experimental venfication of basic
electric circuit theory Three laboratory hours per week. electric circuit theory Three labor
COREQUISITE: ELEC 2201. [0909.1]
3201. Circuit Analysis II. (4). Continuation of ELEC 2201 Resonance, impedance and admittance functions, network theorems and analysis, complex frequency plane, polyphase circuits and magnetic coupling. Three lecture, three laborato
ry hours per week PREREQUISITE: ELEC 2201. [0909-1]
3202. Transform Methods In Network Analysis. (3). Introduction to transform theory, application of Fourier, Laplace and 2-transforms to solution of network problems. Three le
hours per week PREREQUISITE ELEC 2201. [0909.1]
3211. Electronics I. (3). Active vacuum, gas and solid state devices as elements of electric circuits; linear models anc linear operation of these devices stressed. Three lecture
hours per week PREREQUISITE: ELEC 2201 and ELEC 2203. hours per
[0909.1]
3212. Electronics II. (4). Power amplifiers; feedback amplif! ers: oscillators; modulation and detection, rectifiers. Thref
lecture, three laboratory hours per week. PREREQUISITE ELEC 3211. [0909-1]
3213. Electronics I Laboratory. (1). Emphasis on laboratory techniques in performance of basis electronic experiments.
Three laboratory hours per week. COREQUISITE: ELEC 3211. Three labor
[0909-1]
3220. Engineering Computer Systems. (3). Basic structure and organization of digital computers and associated peripheral devices. Digital representation of data, basic instruction sets, instruction execution and addressing techniques. Basic program structure in machine language. Subroutine and utility programs, systems programs, and other sortware. Formulatoward computer-controlled systems. Three lecture hours toward computer-controlled systems. Three
per week. PREREQUISITE: ENGR 1011.
[0702-1]
3221. Matrix Computer Methods In Electrical Engineering. (3). Application of matrix theory to solution of circuit problems. Introduction of state space concept in circuit, electronics and controls problems; of matrix concepts in the solution of basic electromagnetic problems. Three lecture hours per
week. PREREQUISITE: ELEC 3201. (O705-1)
3222. Introduction to Engineering Instrumentation. (4). Transducers for physical systems. Mechanical, temperature, acoustic, and biomedical transducers Methods of processing and analyzing data. Three lecture, three laboratory hours per week. PREREQUISITE: ELEC 3212. (O909-1]
4201. Energy Conversion. (3). Energy conversion by electromechanical processes, energy relations in magnetic systems, mathematical modeling of magnetic systems, transformers and electrical machines. Three lecture hours per
week. PREREQUISITE: ELEC 2201. (O909-1)
4202-6202. Electrical Power Systems. (3). Investigation of problems associated with transmission of electrical energy components. Three lecture hours per week. PREREQUISITE: permission of instructor. [O909-1]
4203. Energy Converslon Laboratory. (1). Fundamental properties associated with testing and utilization of direct current and of alternating current equipment such as motors, generators, alternators and transtormers. Three laboratory hours
per week. COREQUISITE: ELEC 4201. [0909-1] 4211. Electromagnetic Fleid Theory I. (3). Maxwell's equations electrostatics, magnetostatics and time varying electro-
magnetic fields. Three jecture hours per week PREREQUImagnetic fields. Three lecture hours per week PREREQUISITE MATH 3391 . [0909-1]
4212-6212. Electromagnetlc Fleid Theory II. (4). Plane, cylindrical and spherical waves; high frequency transmission lecture, three laboratory hours per week PREREQUISITE: lecture, three labora
ELEC 4211 . [0909-1]
4213-6213. Antenna Theory and Deslgn. (4). Continuation of 4212. Emphasis on theory of operation and design of antennas. Determination of antenna radiation characteristics Introduction to antenna array theory. Three lecture, three laboratory hours per week PREREQUISITE ELEC 4212. (0909-1)
4221-6221. Pulse and Digital Circuits. (4). Timing, scanning, trigger and pulse circuits, astable, bistable and monostable multivibrators; binary counting circuits. Three lecture, three laboratory hours per week. PREREQUISITE ELEC 3212. [0909-1]
4222-6222. Introduction to Logical Design and Switching Circults. (3). Analysis and design of logical switching circuits, logic, number systems, digital computer components. Three lecture hours per week. PREREQUISITE: ELEC 3211 or permission. [0702-1]
4230-6230. Data Communication Systems. (3). Data communications in information and computing systems. Analog and digital means of transmitting and controlling information. Organization and requirements of data communication systems including modulation and demodulation, multiplexing, switching, error detection and correction On and Off line, real and non-real time, and time sharing systems. Three lecture hours per
4231-6231. Communication Theory. (3). Frequency and time domain. Modulation, random signal theory: autocorrelation, basic information theory, noise, communication systems
Three lecture hours per week. PREREQUISITE: ELEC 3212. Three lec
[0909-1]
4232-6232. Discrete Signal Processing. (3). Introduction to deterministic and random discrete time signal analysis. Includes signal time averaging, digital filtering, spectral analysis, and detection and estimation of signals. Applications to computer processing biomedical, seismec, and radar signals PREREQUISITE: ELEC 3202. [0703-1]
4240-6240. Introduction to Quantum Electronics. (3). Quantum concepts. Schrodinger equation, quantization of electromagnetic radiation. Laser theory and application. Three led rure hours per week PREREQUISITE senior standing. [0909-1]
4241-6241. Solld State Physical Electronics. (3). Quantum concepts; statistics; crystal structure; conduction processes in solids, p-n junctions and devices, field-effect devices, charge transfer devices. Three lecture hours per week PREREQUISITE ELEC 3211. [0909.1]
4242-6242. Electro-Optical Systems. (3). Principles of radiometry and the engineering aspects of electro-optical devices such as lasers, trackers, FLIRs, infrared sources and detectors video techniques for dispiay and analysis Thre
lecture hours per week PREREQUISITE Senior standing
4251-6251. Control System Englneering. (4). General equations of physical linear systems and their transfer functions Transient analysis and stability of servo systems. The Bode plot, Nichols chart, Nyquist plot, Routh-Hurqitz criterion, root locus methods, introduction to compensation techniques and systems in state space. Three lecture. three laboratory hours
per week. PREREQUISITES: ELEC 3202. 4201 [O909-1]

4261-6261. Introduction to Network Synthesls. (3). Synthe SIs of canonical LC, RL, RC, and RLC driving point impedances Synthe sis and realization of lossy one and two port networks.
Three lecture hours per week. PREREQUISITE. ELEC 3202. Three lect
(O909-1]
4270-6270. Introduction to MIcroprocessors. (3). LSI CIr cuitry, microprocesser architecture, hardware and software application and system design using a Microprocessor Assemulator. Three lecture hours per week. PREREQUISITE: ELEC 3220. [0701-1]

4271-6271. Microcomputer Applicatlons. (3). Introduction to common peripheral devices and interfacing techniques. Use of high levellanguages to aid in microcomputer system design. Microprocessor applications. Three lecture hours per week. PREREQUISITE: ELEC 4270. [0705-1]
4991. Electrical EngIneering Projects I. (1-3). Independent investigation of problem selected in consultation with instructor: report required. PREREQUISITE: senior standing tor, repor
[0909-8]
4992. Electrical EngIneering Projects II. (1-3). Design, construction and testing of project investigated in ELEC 4991 report required. PREREQUISITE: ELEC 4991. [0909.8]

## ENGINEERING TECHNOLOGY

PROFESSOR W.T. BROOKS, Chairman

Room 203, Technology Bulding

## Q890 ARCHITECTURAL TECHNOLOGY (TECH)

1555. History of Architecture. (3). Major trends in architecture from prehistoric times to present. Emphasis on impact of technological and social changes on prevailing architectural styles. [0925-1]
1556. Architectural Design I. (4). Fundamentals of architectural design; basic techniques of draftıng, perspectives, presentation and working drawings. Three lectures, three labora tory hours per week. (0904-1)
1557. Site and Environmental Planning. (3). Building sites; selection and utilization, including environmental influences. Technical aspects such as zoning, contour lines, parking, ingress/egress, site drainage, building location and landscaping Two lecture, two labora
SITE TECH 2555 . (0913-1)
1558. Bullding and Construction Systems. (3). Comprehensive study of building types and building systems as they relate oo architectural technology Two lecture, two laboratory [0925-1]
1559. Structural Design I. (3). Fundamentals of structural design and analysis of steel and timber buildings and building components PREREQUISITES: MATH 1321. TECH 3401 [0925-1]
1560. Structural Design II. (3). Fundamentals of structural design and analysis of concrete buildings and building compo3520. Architectural Design II. (4). A continuation of TECH 2555. Basic design concepts and methods as applied to building types, design, construction, and systems for units of contemporary architecture. Three lecture, three laboratory
hours per week PREREQUISITE TECH 2555, 3471. [O904-1]
1561. Architectural Model MakIng. (3). Contınuation of TECH 2555, including pictorial representations, model building and furnishings design. PREREQUISITE- TECH 2555. [O925-I]
1562. Mechanical Equipment in Construction. (3). Studies in environmental technologies in ar chitecture, mechanical systems, plumbing, electrical and
UISITE. TECH 3520 / $0925-1$ ]
1563. Architectural Design III. (4). Contınuation of TECH 3520 Design concepts and methods as related to mass horizontal and vertical architectural development. Three lec ture, three laboratory hours per week PREREQUISITES:
TECH 3520, 3471,3472. [O904-1]
4525-6525. Buliding Codes and Regulations. (3). Codes and regulations, in general, that influence the design and construction of buildings. Specific study of the local building code and 4530-6530. Architectural Specifications and Contracts. (3) Examination of typical contract documents beginning with agreement between architect and owner and continung through construction Emphasis on roles and responsibitities of each party. CSI format for specifications, including proper organization, writing and utilization of complete set of specifications. (0925-1)
Q890 COMPUTER SYSTEMS TECHNOLOGY (TECH) 2251. Advanced Programming Techniques. (4). Modeling techniques appicable to engineering technology Subprograms tape input/output, random-access stor age devices complex arithmetic, and double precision operations empha sized Three lecture, three laboratory hours per week. PRE REQUISITE ENGR 1011 or TECH 1010. (O925-3)
1564. Data Structures. (4). (3251) Application of high speed digital computer to problems associated with stor age and retrieval of numeric and non-numeric data in engineering systems Includes representation and organization for storing of data, searching and sorting techniques, decision tables, and hours per week. PREREQUISITE TECH 2251 or equivalent hours per
1565. Computer SImulation Technology I. (4). Languages
designed for simulation of physical systems Includes general
purpose languages, as well as languages desıgned for electronics and construction technology, Laboratory consists of application of analog. digital and hybrid computers to simulate
large scale systems. Three lecture, three laboratory hours per week PREREQUISITE: TECH 2251 or equivalent. (O701-1) per 4241-6241. Computer Simulation Technology II. (4). simulators using a dedicated computer. Problems and limitations of real-time simulations typical to aerospace and nuclear industries. Special and advanced techniques foor business and industrial applications Three lecture, three laboratory hours per
4251-6251. Assembly Language Programming. (4). Investıgation of a particular mini-computer from programmer's viewpoint. Includes machine representation of data, instruc-
tion formats, machine operation and addressing techniques tıon formats, machıne operation and addressing techniques, input/output, and interrupts. Applications include use of
minicomputers for numerical control and in sensor based systems. Three fecture, three laboratory hours per week. PREREQUISITE: TECH 2251. [0701-3]
4261-6261. Computer Applications 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 validation. Areas of
emphasis may vary to meet student needs. Three lecture. emphasis may vary to meet student needs. Three lecture,
three laboratory hours per week. PREREQUISITE: TECH 2251
or permission of instructor 10925.1$]$ or permission of instructor. [0925-1]
4271-6271. Computer Techniques. (4). Advanced computer techniques in industry. Includes APT programming for NC machine tools, applicatıon of computer to solve PERT networks and applications in production planning and control. Three lecture, three laboratory hours per week. PREREQUI-
SITE: TECH 2251. COREQUISITE. TECH 3422 (0702-11 4831-6831. Computer Technology I. (3). Introduction to digital and analog computer hardware relating to computing circuits and systems; numbers systems; switching and logic circuits; storage devices; input and output devices; principles
of program control. Two lecture, three laboratory hours per of program control. Two lecture, three laboratory hours per
week. PREREQUISITE: TECH 2831 or permission of instructor. [0701-1]
4832-6832. Computer Technology II. (3). Introduction to internal computer organization and configuration design component and device characteristics; data representation ransfer and storage: Boolean algebra; combinational logic Two lecture, three taboratory hours per week. PREREQUI SITE: TECH 4831 or permission of instructor (O701-1)
4834-6834. Digital Systems In Technology. (4). Industrial and commercial applications of microcomputers and micro processors, theory of operation of MSI and LSI logical devices gramming, testing and maintenance. Three lecture, three gramming, testing and maintenance. Three lecture, three
laboratory hours per week. PREREQUISITE: TECH 4832. (0701-1)
1566. Microprocessor Interfacing Techniques. (4). Application of microprocessors to equipment; emphasis on interface problems. Techniques employing conventional Logic devices
as well as LSI components. Testing and maintenance tech. as well as LSI components. Testing and maintenance techThree lecture, three laboratory hours per week. PREREQUI SITE: TECH 4834. [0925-1]

## Q890 CONSTRUCTION TECHNOLOGY (TECH)

1451. Introduction to Surveying. (3). Surveying practices, calculations, and use of topographical conventions. Two lec
ture. three laboratory hours per week. PREREQUISITES ture, three laboratory hours per week. PREREQUISITES
TECH 1411 and MATH 1212 . (O925-1]
1452. Soll Technology In Construction. (3). Soil technology as applied to construction field. Fundamental properties of soils with application to foundations, highways, retaining walls
and slope stability. Relationship between soil charactertistics and slope stability. Relationship between soil charactertistics per week. PREREQUISITE: junior standing or approval of instructor. [0925-1
1453. Construction Administration. (3). Ethical practice, social responsibility, licensing, codes, and public regulation of contracting, specification writing and interpretation, functıons of architect-engineer and owner, construction contracts, bonding, insurance. indemnification, labor agreements relationship. PREREQUISITE: junior standing. (O925-1]
1454. Construction Surveying Methods. (3). Methods, techniques and formulas necessary to establish controlling points at any construction site. Both office and field procedures required to locate centerlines and bounds of structures.
PREREQUISITE. TECH 1451. [0925-1] PREREQUISITE. TECH 1451. [0925-1]
1455. Estimating. (3). Study and practice of specifications. bidding procedures, and estumating. PREREQUISITE: TECH
1456. Land Surveying. (3). Historical background of property
surveys. Writing adequate land descriptions. Interpretation of surveys. Writing adequate land descriptions. Interpretation of old descriptions. Excess and deficiency. Riparian rights. Field practice. Two lecture, three laborat
PREREQUISITE: TECH 1451. [0925-1]
1457. Construction Planning and Scheduling. (3). Principles of planning scheduling, organizing, and controlling construcwith resource leveling and financial scheduling ) and PERT, with resource leveling and financial scheduling. Computer
applications in CPM and PERT emphasized. Two lecture, three applications in CPM and PERT emphasized. Two lecture, three
laboratory hours per week. PREREQUISITE: senior standing. l0925-1]
1458. Construction Methods and Equipment. (3). Theory and practice of construction operations, equipment utilization, construction methods, analysis of costs, crew and equipment.
4522.6522. Construction Logistics. (3). Theory and practice of construction project bidding using statistical concepts of and cost condromputer applications. Ohice procedures. 10 b construction contracts. PREREQUISITE: senior standing l0925-1]

Q890 ELECTRONICS TECHNOLOGY (TECH)
1811. Electronics Technology I. (3). (Same as CMUS 1811). introduction to fundamental electrical and electronic theory and devices. circuit and network theorems, laboratory emphasis on basic electrical measurements and proper use of
instruments. Two lecture, three laboratory hours per week. PREREQUISITE: MATH 1213. (0909-1]
1821. Electronics Technology II. (3). Circuit analys is methods mathematical solutions to problems involving Direct and Alternatical solutions to problems involving Direct and Alternating currents. Two lecture, three labor
week. PREREQUISITE: TECH 1811. (O925-1]
2821. Electronics Technology III. (3). Theory of solid-state devices and electron tubes with applications in power sup. plies, amplifiers and other basic electronic circuits. Solid State diodes, bipolar junction transistors, and field effect transistors emphasized. Two lecture, three laboratory hours
per week. PREREQUISITE: TECH 1811 . COREQUISITE: TECH per week. PRER
1821. [0909-1]
2831. Electronles Technology IV. (3). Theory of semiconductor devices and their applications in multistage circuits, sinusoidal and nonsinusoidal oscillators, and other fundamental electronic circuits. Both discrete components and integrated circurts, emphasis on integrated circuits.
laboratory
lours per week. PREREQUISITE: TECH 2821. (0909.1)
3811. Electronics Communications. (3). Principles of modulation and demodulation. In depth; together with associated radio transmitter and receiver circuitry, telephone applications and electronic navigational aids. Two lecture, three
laboratory hours per week. PREREQUISITE: TECH 2831 laboratory
(0925-1)
3821. Industrial Electronics. (3). Electronic circuits and sys tems in modern industry. Theory and industrial applications of tors, silicon controlled rectifiers, diacs, triacs, opto-electron. ics, and synchros. Two lecture, three faboratory hours per week. PREREQUISITE: TECH 2831. [0925-1]
3822. Control Instrumentation. (4). Theory of application of automatic control equipment. principles, operations and construction of pneumatic hydraulic, electrical, and automatic ratio controlers. Three lecture, three laboratory hours per
week. PREREQUISITE: TECH 3821 or per nission of instructor. [0925-1]
3841. Advanced Applled Electrielty. (3). Generation and utilization of single and polyphase electrical power in home and industry. DC and AC generators, motors, regulators and lecture, three laboratory hours per week. PREREQUISITE TECH 1821 . [0909-1]
3861. Acoustical Equipment and Studio Techniques. (3). (Same as CMUS 3861). Application and operation of micro phones, magnetic tape recorders, sıgnal processing equip-
ment, studio consoles, noise reduction devices, speakers, and studio session procedures. Three lecture/two laboratory hours per week. PREREQUISITE: TECH 1811. [0925-1]
3862. Magnetic Recording and MIxIng. (3). Transport systems: single and multiple sound track heads; alignment shielding, crosstalk; high-frequency bias current; types of magnetic tape: equalization; degaussing: different types of recording, mixing, mix-down, and special effects. PREREQUISITE: TECH 2831. [0925-1]
4801. Antenna Technology. (4). Detailed examination of transmission lines and antennas. using applications approach with minimum of purely mathematical analysis: applications in bothwire and wireless systems. Three lecture, three laborato-
ry hours per week. PREREQUISITE: TECH 3811. (0925-1) 4811. Advanced Electronic Communicatlons Technology. (3). Concepts, systems and practical applications in genera-
tion, transmission and detection of aural, data and visual tion. transmission and detection of aural, data and visual information inanalog and ingitaiform. Three lecture hours
week. PREREQUISITES: TECH 4821 and 4834 . [O701-1]
4821. Microwave Technology. (4). Generation and transmission of energy at frequencies above 300 megahertz, emphasizing techniques and equipment which contrast sharply with those at lower frequencies. Three lecture, three laboratory
hours per week. PREREQUISITES: TECH 3811. TECH 4801 or hours per week. PREREQUISITES: T
permission of instructor. (O925-1)
4841. Video Communications. (3). Theory and application of technical equipment for generation, transmission, and recep lecture, three laboratory hours per week. PREREQUISITE: TECH 3811 . [O925-1]
4861. Studlo Sound Systems. (3). Recording studio as integrated sound system; classifications of microphones; design of loudspeaker; circuitry and functions of sophisticated mixing console. PREREQUISITE: TECH 2831. [0925-1]

## Q890 INDUSTRIAL ARTS (TECH)

3831. Industrial Arts Electronics. (3). Brief coverage of applied electronics for prospective teachers. Two lecture.
three laboratory hours per week. PREREQUISITE: TECH 1821 . three labo
[0909-1]
3832. Energy and Power Technology. (3). Principles of energy systems and power mechanics to include energy sources, conversion and transmission. Internal and external combus-
tion engines include gasoline, diesel, et and rockets. Atomic tion engines include gasoline, diesel, let and rockets.atomic, experiments and problem of small engine and energy sources. Two lecture, three laboratory hours per week. [0925-1]

4361-6361. Organization and Management of the School Shop. (3). Understanding and application of vocational train ing program organization and classroom management includes organization management, adminıstration, training area layout, equipment, facility update, curriculum utilization and budgeting. [0925-1]
4362. Shop Equipment Malntenance. (3). Understanding of instruments and enance, maintenance and calibration tion shops. (0925-1]
4363-6363. School Shop Safety. (3). Overview of evolvin school safety standards as prescribed by OSHA and TOSHA Understanding and application of safety standards. Includes shop safety programs, and accident prevention. [O925-1]
4375. Crafts for Teachers. (3). Study and experience with craft materials. [0839-1]
Q890 MANUFACTURING TECHNOLOGY (TECH)
1511. Graphlcs I. (3). Introduction to graphic representatio and presentation. Basic exercise in lettering, use of instru ments, sketching, geometric construction and projections; however, problem solving stressed. Two lecture, three labora tory hours per week. [0925-1]
1611. Introduction to Forest Products Technology. (3). Lec ure and related laboratory activities employed to study undamental concepts of wood utilization, wood fabrication operations of woodworking machines, adhesive technology and the organization of forest products and industries. Two and the organization of forest products and indust
lecture, three laboratory hours per week. (0925-1)
1711. Machine Production Technlques. (3). Metalworking equipment and machinery for production usage. including safety. care, layout, cutting feeds and speeds, tool grinding drilling, tapping, shaping, turning, and milling. Two tecture three laboratory hours per week. [0925-1]
2511. Descriptive Geometry. (3). Points, lines and planes in space; emphasis on application to problems of technological nature. Two lecture, three labora
REQUISITE: TECH 1511 . [0925-1]
3386. Occupational Safety. (3). (3387). Hazards and safety
procedures for general industry and construction. fO925-1] dures for general 3410. Plastic Propertles and Processes. (3). Classification and properties of basic groups of plasiics and industrial processes and techniques used in transforming raw materials into usable products. Two lecture, three laboratory hours per week
PREREQUISITE: CHEM 1051. [0925-1]
3421. Manufacturing Processes and Numerical Contorl. (3). Processes and techniques used to shape materials into useful products. Techniques include cutting, molding, stamping extruding, cold and hot forming, and grinding. Principles and ecture, two taboratory hours per week. PREREQUISITE: TECH 1711. (O925-1)
3424. Product Pretreatment and FInishing. (3). Introduction to product pretreatment and finıshing: emphasis on methods materials, and equipment. Test procedures and environmen tal aspects also investigated. [0925-1]
3573. Dynamics and Mechanical Design. (3). Basic graphical consideration of kinematics, linkages, mechanisms and the relation to dynamic properties such as force, mass and
acceleration. PREREQUISITES: TECH 2511, 2944 and 3400 . [0925-1]
3601. Light Frame Bullding Construction. (3). Contemporary ight frame building construction; emphasis on estimating. building materials, and building systems. (0925-1)
3611. Industrial Wood Processing. (3). Lecture and related laboratory activities to study wood product mass production; with emphasis on wood product design, process engineering wood related materials, wood substitutes, and industrial firishing materials and systems. Two lecture, three labora
hours per week. PREREQUISITE: TECH 1611. [0925-1]
3631. Wood Technology. (3). Lecture and related laboratory activities to study anatomy, characteristics, and properties of wood; cause of wood defects and deterioration and wood identification. Two lecture. two laboratory hours per week. [0925-1]
3718. Welding and Metallurgy. (3). (3731). Properties of metals: emphasis on physical and mechanical properties elated to welding, cold and hot working, heat treating and lesting. ${ }^{\text {[0925-1] }}$
4460-6460. Motlon and Time Analysis. (3). Methods improve economy, and development of time standards by direct observatio
4462-6462. Statistical and Quality Control. (3). Statistical methods for analyzing quality problems; include control charts for variables and attributes; single, double and multiple lot-by-lot acceptance sampling plans
tions to quality assurance. [O925-1]
4464-6464. Production Control. (3). Planning and control of production; emphasis on intermittent and continuous manufacturing. Fields of study include forecasting, designing con trol forms, using visual controls. scheduling, dispatching
4466-6466. Plant Layout. (3). Designing a plant with respect o material handling, machine location, auxiliary services capital requirements, safety. and personnel organization [0925-1]
4470-6470. Human Performance In Manufacturing. (3) Man-maching environment systems, man's anatomical, phys to work and workplace. Application through lab experiences and plant visits. Two lecture, three laboratory hours per week [O925-1]
4472. Computer Alded Deslgn and Manufacturing. (3). Current state of the art regarding use of computers for poroduct and part manufacture and assembly. Topics include software and hardware used in cad-cam, current trends in automated factory, group technology and robotics. j0925-I]
4571. Machine and Tool Design. (3). (4591). Study and application of basic machine elements in assemblies. Layout of fixtures. jigs and dies for production tooling. Two lecture. three laboratory hours
2511 and 3401. [O925-1]
4950-6950. Product Safety Management. (3). (3921, 3931). Study of modern concepts of accident prevention by means of safety analysis. Analyses of responsibilities and requirements of management in producing safe consumer products. Emphasis on electrical and mechanical hazards. (0925-1]
4961. Industrial Hyglene. (3). Potential hazards to worker and environment. Exposure of worker to toxic materials and physical stress, sampling techniques for determining exposure and methods of prevention. [0913-1]

## Q890 SUPPORTING COURSES (TECH)

1010. Introductlon to Computer Usage. (3). Instruction on how computers operate. Methods of communicating with computers through input and output devices. Elementary and familiar calculations programmed in BASIC. Hands-on opera tional experience with remote terminal equipment. Two lec-
tures, three laboratory hours per week. PREREQUISITE: High tures, three laboratory hours pe
School Mathematics. (0701-1]
1011. Introduction to Technology. (1). Emphasis on englneering technology programs as to content and opportunities upon graduation; technical applications, calculations and activities related to various technological disciplines: approaches to basic research techniques and problem solv ing. [0925-1]
1012. Introduction to Instrumentation. (3). Basic mechanical and electrical instruments used in measurement of temperature. pressure, and flow. PREREQUISITE: Course established
for and limited to students enrolled in nuclear studies profor and
grams.
1013. Technical Report Writing. (3). Scientific methods for organizing technical reports. Includes technical corresponorganizing technical reports. includes technical correspontechnical information and presentation of charts, diagrams
and other graphic aids. PREREQUISITES: TECH 1511 and ENGL 1102. [0925-1]
1014. Analysis for Engineering Technology. (4). Application of mathematical, scientific, and engineering principles to solution of technology problems, using a variety of examples
from various major areas in Technology. Students analyze and from various major areas in Technology. Students analyze and provide acceptable solutions to ascending order of well designed problems using language and techniques or related technologcial disciplines and selected areas of mathematics. such as algebra, trigonometry, calculus, and differential equations. Three lecture, three laboratory hours per week. PREREQUISITE: MATH 1321. [O925-1]
1015. Computer Appllcatlons in Nuclear Power. (3). Specialized course in applications of computer technology within the nuclear power generation system. Includes overview of digital logic and hardward, programming fundamentals and nuclear applications. PREREQUISITE: course established for and limited to students enrolled in nuclear studies programs.
1016. Fluld Power. (3). Fundamental principles of hydraulic and pneumatic systems; emphasis on fluid instrumentation, control, and measurement. Two lecture, three laboratory hours per week. PREREQUISITE: MATH 1213. [0925-1]
1017. Forces and Force Systems. (3). Force systems and their solution; that branch of mechanics which deals with forces and effects of forces acting upon rigid bodies at rest. PREREQUISITES: TECH 2944, PHYS 2112. [0925-1]
1018. Strength of Materlals. (3). Analysis and study of struc-
tural materials. PREREQUISITES: TECH 3400 [0925-1]
1019. Industrial Materlals. (3). Properties of structural materials and methods used to test for these proper
lecture, three laboratory hours per week. [0925-1]
1020. Materials Structure and Properties. (3). Environmental considerations, properties (both microscopic and macroscopic), testing and classification of materials in the nuclear power industry. Processing, fabrication and application of power industry. Processing, fabrication and application of
ferrous and non-ferrous metals, ceramics and polymers. ferrous and non-ferrous metals, ceramics and polymers.
PREREQUISITE: course established and limited to student enrolled in nuclear studies programs.
1021. Project Cost Evaluation 1. (3). Industrial as well as personal financial situations and how they are affected by interest rates and "Time Value" of money. Investigation of economic alternatives including applications of existing for--
mulas, techniques, and methods. Three lecture hours per mulas, techniques, and methods. Three lecture hours per
week. PREREQUISITES: junior standing or permission of week. PREREQUISITES: junior standing or permission of
instructor. [0925-2]
1022. Project Cost Evaluation II. (3). Continuation of study of formulas and techniques used to evaluate financial alternatives to personal and industrial cost projects. Emphasis on analysis of tax structure and how it influences selection of
optimum financlal alternatives. PREREQUISITE: TECH 3440 . optimum
[0925-I]
1023. Analytlc Approaches to Public Fire Protection. (3). Systems analysis and its use and limitations in fire protection and other problem areas. Illustrated with case studies and models using the systems. approach to fire suppression and models using the systems approach to fire suppression and
prevention. PREREQUITE admission restricted to students seekıng B.P.S. degree in Fire Administration or Fire Prevention Technology. [0925-9]
1024. Fire Related Human Factors. (3). Dynamics of human behavior in fire incidents related to building design, codes and ordinances, and other fire prevention practices. PREREQUISITE: admission restricted to students seeking B.P. S. degree
in Fire Administration or Fire Prevention Technology. [O925-9]
1025. Fire Protection Structure and Systems Design. (3). Design principles involved in protection of structure from fire involvement. Empirical tests and prediction procedures. Control detection, and suppression system design practices. Fundamentals of hydraulic design of sprinkler and water spray systems with recent innovations. PREREQUISITE: admission restricted to students seeking B.P.S. degree in Fire Administration or Fire Prevention Technology.
1026. Principles of Supervision. (3). Functions of supervisory personnel. [0925-1]
1027. Problems In Technology. (3). Study and research in specific area. PREREQUISITE: senior classification for majors and minors in Technology who offer satisfactory evidence of and ming qualified to benefit from course. (0925-8)

## Q895 VOCATIONAL-TECHNICAL EDUCATION

## (VTED)

1011. Introduction to Industrial Education. (3). Overview of programs in vocational, technical, and industrial arts education. Includes history and development, aims and objectives. activities, and contemporary nature of programs. [0925-1] 3010. Cooperatlve Occupational Education. (3). (Same as
DTED 3010 and HMEC 3010). Introductory study of occupational education programs which use work experience coordinated with related in-school instruction to provide
preparation in the trade and industrial areas. [0839-1]
1012. Manipulative SkIII In Occupational Specialty. (3-15). Credit determined by performance evaluation by department granting degree or acceptance of nationally administered graluation program. [O925-8]
1013. Knowledge of Related Subjects to Occupational Speclalty. (3-15). Credit determined by performance evaluation by department granting degree or acceptance of nationally administered evaluation program. [0925-8]
1014. Analysis of Teaching. (3). (Same as EDUC 3301). Micro-teaching demonstrations plus observations and evaluation by teaching experience in vocational-technical subject tion becialty. [0839-1]
1015. Occupational internship. (6). Cooperative work experience program for persons having neither saleable skills nor
work experience adequate to meet certification requirework experience
ments. $0925-1]$
1016. Job Analysis. (3). Systems approach to identifying and specifying content in vocational-technical education, components of instructional system, identification of student needs and abilities, job descriptions, job analysis, and instructiona objectives. [0925-1]

4120-6120. Curriculum Bullding In Industrial Education. (3). Basic techniques in curriculum planning in industrial education including planning and preparing learning sequence, preparing learning activities. selecting and preparing learning
resources and evaluating student performance. [0839-1]

4130-6130. Organization and Operation of Youth Organizations. (2). Development and oper ation of youth organizations in vocational training programs. Includes youth organization development, history of youth organizations in America, parliamentary law, youth organization activity and competition [0925-1]
4140-6140. Organization and Utillization of Advisory Committees. (2). Development and utilization of advisory committees in vocational education training. Includes different committees, their functions, utilization, and role of local labor market. [0925-1]
4210-6210. Methods of Teaching Industrial Education. (3). (Same as SCED 3384). Understandings and skills required for planning, utilizing, and evaluating instructional methodologies and techniques used in industrial education. Three lecture hours per week. [0839-1]
4220. Vocational-Technical Instructional Materials. (3). Selection, use, and construction of audiovisual materials for
vocational-technical education. Emphasis on integration of vocational-technical education. Emphasis on integration of
these materials into the total instructional system. (O839-1]

4611-6611. Princlples and Phllosophy of Vocational Educatlon. (3). Same as DTED 4611 and HMEC 4611). History. philosophy, principles and objectives of vocational education curriculum problems; contribution of vocational-technical education to general education; trends in vocational-technical education. [0839-1]
4641. Techniques of Coordination of Cooperative Occupatlonai Educatlon. (3). (Same as DTED 4641). Selecting training agencies; developing job analyses; selecting and briefing training supervisor; selecting and working with advisory committees; utilizing other community resources. PREREQUISITE VTED 3010. (0839-1)
4841. Student Teaching. (9). In-school experience under the supervision of a qualified instructor of the vocational-technical subject in which the student is specializing. [0839-5]
4850. Problems In Vocational-Technical Education. (1-3). Independent study and completion of a term paper dealing with a current operational problem in vocational-technical education. [0925-8]
4860. Curriculum Problems In Vocatlonal. Technical Education. (1-3). Independent study and completion of a term paper dealing with a current curriculum problem in vocationaltechnical education. [0839-8]
4871. Seminar in Vocational-Technical Education. (1-9).
operational problems in vocational-technical education [0925-1]
4930. Conference Leadership In Vocational-Technical Education. (3). Techniques and strategies used to direct small group conferences in education or industry toward specified goals through discussion and interaction. [0925-1]
4911-19. Experlence In Vocational-Technical Education. (19). Advanced training in industry for instructors desiring to up-date their skills or to add other skills related to their occupational specialty. (O925-5)
4930. Conference Leadership In Vocational-Technical Education. (3). Techniques and strategies used to direct smal group conferences in education or industry toward specified goals through discussion and interaction. [0925-1]

## GEOLOGY

## PROFESSOR RICHARD W. LOUNSBURY,

 ChairmanRoom 312. Engineering Building

## Q850 GEOLOGY (GEOL)

1101. Physlcal Geology. (4). Earth's composition and structure and processes which affect it. Emphasis on crust of earth and processes which continually modify surface. Three lecture, two laboratory hours per week. [1914-1]
1102. Historical Geology. (4). History of earth and its life as interpreted from rock and fossil records. Principles of interpreting records and succession of geologic and boologic events which led to modern world. Three lecture, two laboratory
hours per week. PREREOUISITE: GEOL 1101 [1914-1] hours per week. PREREQUISITE: GEOL 1101. [1914-1]
1103. Mineralogy. (4). Introduction to crystallography and crystal chemistry. Physico-chemical properties and identification of important ore and rock forming minerals. Three Geture, two laboratory hours per week, PREREQUISITES:
GEOL I101 and 1201: CHEM 1111: COREQUISITE: CHEM GEOL 1101 and 1201; CHEM 1111; COREQUISITE: CHEM 1112. [1914-1]
1104. Petrology. (4). Study and identrfication of rocks. Examination and identification of minerals; emphasis on rockforming minerals included in studies of rocks. Two fecture four laboratory hours per week PREREQUISITE: GEOL 2311 (1914-1]
1105. Llfe of the Past. (3). Fossil record of the history of life and consideration of concepts used in interpreting the significance of that record. Primarily for general student. Credit will not be given toward the degree requirements for a major in geology. [1914-1]
1106. Introduction to Paleontology. (4). Fossil invertebrate animals and their importance in interpretation of ancient environments, evolution, and geologic time. Three lecture two laboratory hours per week. PREREQUISITES: GEOL 1101 .
1107. [1918-1]
1108. Structural Geology. (4). Rock structures; origin, criterıa or recognition and solution of structural problems. Two lecture, four laboratory hours per week. PREREQUISITEGEOL 1201 [ $1914-1$ ]
1109. Sedimentation and Stratigraphy. (4). Origin and classification of sedimentary rocks and mutual relationship of sedimentary rock bodies both geographically and through geologic time. Lecture emphasizes comparison of modern depositional systems with their ancient counterparts. Labortory emphasizes hand specimen analysis and preparation of geologic maps. Three lecture, two laboratory hours per week.
PREREQUISITE: GEOL 1201. [1914-1]
1110. Introduction to Oceanography. (3). Principles of physical and chemical oceanography. Sea floor topography. geology. salinity and contribution of life to physical and chemical
aspects. From point of view of geological engine driven by internal forces and creating earth surface features. Three lecture hours per week. [1919-1]
4100-6100. Petroleum Geology. (3). Application of geologic principles to search for economic accumulations of oil and gas. Emphasis on prospect selection via subsurface tech-
niques. Two lecture, two laboratory hours per week. [1914-1] 4121-6121. Optlcal Crystallography. (3). Principles and methods of study of optical crystallography. Use of polarizing microscope in the identification of minerals. Two lecture, four
laboratory hours per week. PREREQUISITE: GEOL 2312 laboratory hours per week. PREREQUISITE: GEOL 2312. [1914-1]
4201-6201. Airphoto Interpretation and Remote Sensing. 4). Introduction to theory and application of black and white and color air photos and side-looking radar, multispectral canner and infrared imagery. Laboratory primarily concerned with black and white air photos. Three lecture, two aboratory hours per week. [1914-1]
4202-6202. Geomorphology, (4). Theories of landscape development; consideration of processes active at earth's surface: weathering, pedogenic, mass-wasting, groundwater, fluvial, eolian, shoreline and glacial. Three lecture, two laboratory hours per week. [1914-1]
4251-6251. Quaternary Geology. (3). Quaternary stratigra phy and history; emphasis on implications of climatic change. Geologic techniques particularly suited to Quaternary esearch. [1914-1)
4301.6301. Geologic Data Analysls. (3). Use of computer and teletype in data file construction and management, use of file with various programs, and use of statistical tests, regression
lines, maps, and classification of data sets with aid of computlines, maps. and classification of data sets with aid of computSITE: senior standing or consent of instructor. [1914-1]

4312-6312. Introduction to X-Ray Diffraction. (3). Basic principles of $x$-ray diffraction. Application to crystallographic and mineralogic problems including mineral identification by powder method. One lecture, four laboratory hours per week 4322.6322. Petrography. (4). Classification, description, and thin-section study of rocks by means of petrographic microscope. Three lecture, two laboratory hours per week PREREQUISITE: GEOL 4121. [1914-1]
4332-6332. Introduction to Geochemlatry. (3). Geological and chemical processes which govern or control migration and distribution of elements and atomic species of earth in
space and time. Three lecture hours per week. PREREQUIspace and time. Three lectur
SITE GEOL 2312 . (1915-1]
4342.6342. Princlples of Blostratigraphy. (3). (4421). Zonal distribution, factes analysis, and paleoecology of fossils and their application to problems of ear th history and depositional environments. Emphasis on fossil fuel bearing sediments. PREREQUISITES: GEOL 3211, 3712. (1918-1)
4440-6440. Selsmolgy. (3). Selsmic wave propogation is developed. Other introductory topics to include earthquake source parameters, surface wave generation, fault plane
solutions and global seismicity. Two lecture, two faboratory solutions and global seismicity. Two lecture, two tabor
hours per week PREREQUISITE: consent of instructor. hours per
4511-6511. Economic Mineral Deposits. (3). Origin, occurrence, and composition of metallic and non-metalic mineral deposits. Three lecture hours per week. PREREQUISITES:

4601-6601. EngineerIng Geology. (3). Application of principles and knowledge of geology to engineering practice, especally in highways. construction, dam sites, foundations. water resources, and location of certain engineering materials.
Three lecture hours per week. PREREQUISITE: consent of Three lecture hours
instructor. [O911-1]
4622-6622. Geology Fleld Camp. (6). Preparation of structur al and lithologic maps in prescribed geologic areas using are the alidade and the Brunton cographs instruments used school only. PREREQUISITES: GEOL 2312. 3512, and 3712 . [1914-1]
4632-6632. Applled Geophysics. (4). Survey of geophysical methods; emphasizes seismic and electrical investigations employed in engıneering practice. Use of resistivity, seismograph and magnetometer in the investigation of subsurface materials. Location of sand, gravel, and subsurface water discussed and supplemented by fieid measurements with these instruments. Two lecture, four laboratory hours per week. [1916-1)
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. credits to
$[1914-8]$
4721. InvestIgations In Geology. (1-3). Individual or group work on topics of current interest. PREREQUISITE consent of instructor. (1914-8)
4731. Senlor 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. $/ 1914-87$

## MECHANICAL ENGINEERING

PROFESSOR JOHN D. RAY, Chairman

Room 108A, Engineering Building

## Q870 MECHANICAL ENGINEERING (MECH)

2332. Dynamics. (3). Kinematics and kinetics of particles and rigid bodies. Three lecture hours per week. PREREQUISITE: CIVL 2131 (0910-1)
2333. Thermodynamics for Chemical Engineers. (3). Stochiometric analysis of chemical reactions investigation of
homogeneous mixtures and phase equilibria Quantitative treatment of rate processes; distillation, extraction, absorptıon. COREQUISITE: MECH 2332
2334. Mechanical Instrumentation and Measurement. (3). Accuracy, precision and statistical consideration of measurement data; dynamics of measurement; displacement, velocity acceleration, force, torque, pressure and temperature measurement: mechanical impedance: measurement of flunds and instrumentation systems. Lectures supplemented with laboratory demonstrations. PREREQUISITE: MECH 2332. [0910-1]
2335. Engineering Thermodynamics I. (3). Laws of thermodynamics and their applications to engineering problems. Three lecture hours per week. PREREQUISITE MATH 2322 ;
PHYS 2512. [0910-1]
2336. Engineering Thermodynamics II. (3). Applications of thermodynamics laws; emphasis on real gases, real gas mixtures, combustıon, gas cycles and vapor cycles. Three lecture
hours per week. PREREQUISITE: MECH 3311,3331. [O910-1]
2337. Dynamics and Control of Machines I. (3). Dynamics analysis of mechanism including rigid body dynamics and balancing of machines. Introduction to linear mechanical systems and stability analysis of linear mechanical systems.
Three lecture hours per week. PREREQUISITES: MATH 2322 , Three lecture hours per week. PREREQUISITES: MATH 2322 ,
MECH 2332. (O910-1)
2338. Mechanics of Materlals. (4). Analysis of stress and strain of deformable solids; tension, compression, torsion and fexure. Three lecture, three faboratory hours per week. 31. [0910-1]
2339. Mechanical Design and Analysis I. (3). Methodology and practice in designing machine components by integrating principles from mechanics of materials, falure theory, fatigue,
economics and other principles. PREREQUISITES: MECH economics and
$3322.10910-11$
2340. Mechanics of Flulds. (4). Statics and dynamics of fluids: applications to measurement of properties of water and air ows. Three lecture, three laboratory hours per week. COREQUISITE MECH 2332. (0910-1)
2341. Wechanical Engineering Analysis. (3). Engineering methods, classical analysis, computer techniques, and their interactions with mechanical engineering problems. PREREQUISITE MATH 3391 ( $0910-3$ ]
2342. Materials Science. (4). Structure and properties of olids; modification of structure for engineering purposes characteristics of polymers, ceramics, and metals. Three lecture, three laboratory hours per week PREREQUISITE PHYS 2512. (0915-1)
2343. Heat, Mass, and Momentum Transfer for Chemical Engineers. (3). Introduction to principles of heat, mass and momentum transfer; emphasis toward chemical engineering applications. PREREQUISITE. MECH 2362.
4303-6303. Experimental Stress Analysls. (3). Application of electric resistance strain gage, photoelasticity and brittle lacquer techniques to solution of stress analysis problems PREREQUISITE: MECH 3322
2344. Gas Dynamics. (3). Thermodynamics of fluid flow including dynamic and energy relations, adiabatic and diabatic flows. Three lecture hours per week. PREREQUISITE: MECH 3312.
$[0910-1]$
2345. Heat Transfer I. (3). Fundamentals of conduction and convection heat transfer. Discussion of Fourier Series, Laplace transforms, and Numerical methods used in heat transfers and analyses. Three lecture hours per week PRE
REQUISITE: MECH 3312. [O910-1] 4312. Power Generation. (3). Application of principles of thermodynamics, fluid mechanics and heat transfer to con version of useful energy. Includes terrestrial and thermodynamic limitations, power plants, nuclear energy, solar energy, [0910-1]
4313-6313. Heat Transfer II. (3). Continuation of MECH 4311 with application to design of heat transfer systems. PREREQUISITE MECH 4311. [0910-1]
4315-6315. Heating, Ventliation and Air Conditioning. (3).
Psychometrics analyses, heating and cooling loads of buid. Psychometrics analyses, heating and cooling loads of buildings and analyses of air conditioning systems. Three lecture hours per week. COREQUISITE: MECH 4311.
4316-6316. Energy Conservation and Management. (3). Energy conservation including combustion, heat distribution heat rejection, heating system efficiency, etc. Effects o of energy management. PREREQUISITE: MECH 4311

4317-6317. Fundamentals of Solar Engineering. (3). Intro duction to engineering applications of solar energy includin solar energy collectors, storage systems, and uses such a power generation and heating and cooling of buildings. COR
EQUISITE MECH 4311 .
4318.6318. Combustion. (3). Concepts of high temperatur and chemically reacting gases. Adiabatic fiame temperature kinetics of reactions. Detonation. Products of pollutants in combustion systems. PREREQUISITE-MECH 3312.
4322. Mechanical Design and Analysis II. (2). Analytica treatment of methods used in design process including creativity. probability, and optimization as applied to design process, from concept through preliminary design to fina
design. PREREQUISITE. MECH 3323. [0910.1]
4323. Mechanical Design and Analysis III. (2). Design process applied to real multidisciplinary problems. Team approach to accomplish design projects from broad spectrum of interes engineering. PREREQUISITE: MECH 4322 .
4325-6325. Advanced Mechanics of Materials. (3). Unsym metrical bending and torsion of flexural members of noncircular cross-section, beams, on elastic foundations and other selected topics; deformations beyond elastic limit theories of fallure. PREREQUISITE: MECH 3322
4326-6326. Blomedical Systems Analysis-Mechanical. (3). (3326). Introduction to concepts used in analyzing living
systems. Simulation of body functions with mechanical and computer models. Familiarization with design of mechanical boengineering device such as heart valves, heart-lung machines, renal dialysis machines, etc. (0905-1]
4331. Turbomachinery. (3). Aerodynamics and flow of fluids in stationary and rotating passages. One, two and three dimensional analysis. Three lect
UISITE MECH 3331. [0910-1]
4344. Dynamics and Control of Machines II. (3). Analysis of mechanical vibrations for multi-degrees of freedom systems and response, control and stability of mechanical systems.
PREREQUISITE: MECH 3321 [0910-1] PREREQUISITE: MECH 3321 . [0910-1]
4345-6345. Design of Mechanisms. (3). Graphical and analytical mechanism synthesis techniques for path generation, function generation, rigid body guidance and optimization of force transmission characteristics. PREREQUISITE: MECH 3321. (0910-1)

4346-6346. Mechanical Controls. (3). Fundamental control system concepts, the Laplace transformatıon, modeling of mechanical control system elements, design of mechanical systems and stability criteria. PREREQUISITE: MATH 3391
(O910-1) 530-635
4350-6350. Mechanics for Blomedical Engineers. (3). Analy-
ses of the bond and point structure of the body related to the basic mechanical equations and properties. Mathematical modeling of bone structure, mechanical properties, static loading, dynamic loading, fatıgue, wear, corrosion.
4352-6352. Fluld Mechanics for Blomedical Engineers. (3). Elements of hydrodynamics, cardio-vascular system, flow of fluids in tubes with elastic walls, pulsatile blood flow inpu impedance and pulse waves, vascular walis, flow through
arterial walls, models of circulation system. PREREQUISITE arterial walis, models
4354-6354. Heat and Mass Transfer for Blomedical Engl neers. (3). Heat transfer, mass transfer, and heat-mass conversion in biological systems. First and second law of thermodynamics applied to biological systems.
4361. Metallurgy. (4). Physical metallurgy, heat treatment and metallography. Three lecture, three faboratory hours per week PREREQUISITE: MECH 3361. [0914-1)
4371-6371. Mechanical VIbrations. (3). Kinematics of harmonic and non-harmomic vibrations; system of one and several degrees of freedom, free and forced vibrations, self-excited vibrations. Three lecture hours per week. PREREQUISITE MATH 3391. [0910-1]
4381. Manufacturing Engineering Operation. (3). Machines tools, and processes used in modern production. Three fec ture hours per week PREREQUISITES MECH 3322; MECH
3361 . [O910-]
4382. Manufacturing EngIneering Design. (3). Design of electromechanical systems for manufacturing processes and production operations. Design based on optimization of man machine interaction, selection of materials and the manufac truing process for high speed production equipment. PRE REQUISITE: MECH 3322, 3361
4391. Mechanical EngIneering Projects. (1-3). Independent nvestigation of mechanical engineering problem in consulta [0910-8]

## THE UNIVERSITY COLLEGE

The following courses are open to students enrolled in the University College. Others may enroll with the permisslon of the Dean of the College.

The specific content of Llberal Studies and Thematic Studles courses will vary from semester to semester; general course descriptlons are presented here.

R950 LIBERAL STUDIES (UNIV)
1010. Communication 1. (6). Exercises in critical listening and interpretation and in effective writing and speaking based on rhetorical analyses of selected documents (e g. essays, docu-
mentary films, narratives, plays, poems, speeches, etc.) PRE mentary films, narratives. plays, poems, speeches, etc.) PRE
REQUISITE application or admission to University College, or Requission of dean. [4901-9]
1020. Communication II. (6). Research into and critical interpretation of those media which create environment of symbols and of effects of such environments on human belief and action; for example, writing in periodical and book form radio, television, film, recorded music and systems of electronic communication. Individual research into symbols used for com- munication and environnient(s) these symbols produce PREREQUISITES UNIV 1010 or ENGL 1101 and ENGL 1102 or their equivalents, and application or admission to the University College or permission of dean. (4901-9)
1210. Humanitles. (6). Research into and critical interpreta tion of major documents and symbols of Western civilization interature, and fine arts. to frame coherent place for himselfin world One or two historical periods stressed NOTE: Or occasion, this course will be same as certain sections of HIST 1301 and HIST 1302, focusing on survey of Western civiliza thon. See Schedule of Classes PREREQUISITE: application or admission to University College, or permission of dean. admission
1410. Soclal Sclence. (6). Introduction to fundamental concepts used by disciplines of anthropology, economics, political science, geography, psychology and sociology Emphasis
on understanding human behavior through study of culture. society and its institutions, personality and mental processes. allocation of resources, and distribution of power. Students encouraged to develop a social science perspective on human behavior through study of important research findings and research of their own. NOTE: On occasion, this course will be same as cerfain sections of INTL 1101 and 1102 , with regional
focus on Third World Nafions. See Schedule of Classes. Same as on Third World Nations. See Schedule of Classes.
focus
PREREQUISITE: application or admission to University ColPREREQUISITE: application or admis
lege, or permission of dean. [4903-9]
1610. Natural Sclence. (6). Basic processes of physical and natural science as applied to selected areas of biology. chemistry, geography, geology, and physics. Formulations of models and use of inductive reasoning in study of physical phenomena used to illustrate interrelationships among natural
science disciplines. Laboratory work included. PREREQUISITE: application or admission to University College, or permission of dean. [4902-9]
matis
1810. Lelsure and Recreation. (2 or 4). Relationship between leisure, recreation, and work; emphasis on balanced lifestyle. Opportunities to participate in and demonstrate selected
recreational skills and activities. PREREQUISITE: application or admission to University College, or permission of dean. [4901-9]

R950 THEMATIC STUDIES (UNIV)
3500-3599. Thematic Studies. (6-9). Interdisciplinary seminars about 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. [4901-1]

## R950 INDIVIDUALIZED STUDIES (UNIV)

1005. 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 maximum credit of six hours. PREREQUISITE: application or admission to University College, or permission of dean. [4999-8]
1006. Speclal Topics. (3-6). Interdisciplinary examination of selected topics announced in Schedule of Classes. [4999-1] 4110. Internshlp. (3-12). Supervised training in work related to student's educational objectives. May be repeated to to student's educational objectives. May be repeated to maximum (tollege (4999-5)
1007. Independent Study. (1-3). Directed individual study or research. Student who has 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. [4999-8]
1008. Spectal Project. (9). Academic research or other creative activity resulting in tangble product to demonstrate synthesis of student's Coordinated Study PREREQUISITE: | admission to University College and completion of a Thematic |
| :--- |
| Studies course (UNIV $35--$ ) | Studies course (UNIV 35--). (4999-8]

## R950 EXPERIENTIAL LEARNING (UNIV)

A porffolio describing and documenting knowledge ganed through experience or non-tradifional instruction may be prepared by a Unversify College sfudenf for assessment by a faculty member. (See Section 3, Fees and Charges, Section 5 , Academic Regulations, for more detals.) That faculfy asses sor recommends the descriptive titie., level, and amount of credif to be assigned by the dean of University College.
1900-1999. Introductory Level Experlential Learning In (descriptive tutle). [4999-9]
2900-2999. Intermediate Level Experlentlal Learning in (descriptive titie). [4999-9]
3900-3999. Advanced Level Experlentlal Learning In (descriptive title). [4999-9]

## AEROSPACE STUDIES

## LT. COLONEL JAMES C. KASPERBAUER Professor of Aerospace Studies

Room 404, Jones Hall

## V950 AEROSPACE STUDIES (AERO)

1111. Alr Force Today. (1). Study of world military forces through treatment of U.S. Department of Defense and doctrine, mission and functions of United States Air Force. One class hour per week and one hour of "Leadership Laborafory [1803-1]
1112. Alr Force Today. (1). Continuation of ROTC 1111. One class hour per week and one hour of "Leadership Laboratory [1803-1]
1113. The Development of AIr Power. (1). Introduction to study of air power. Historical perspective starting before Wright Brothers and continuing through early 1970's. One class hour per week and one hour of "Leadership Laborafory. [1803-1]
1114. The Development of Alr Power. (1). Continuation of ROTC 2211. One class hour per week and one hour of -Leadership Laboratory. (1803-1]

## PROFESSIONAL OFFICER COURSE

3211. Aerospace Studies Four. Week Fleld Training. (4). Twen-ty-elght day course conducted during summer at active installation of USAF; consists of approximately 185 hours of instruction in Air Force base functions, leadership, physical training. Air Force environment, career orientation, and survival training. Students assigned to groups of twenty-five and
individually counseled and evaluated on their performance individually counseled and evaluated on their performance. Emphasis on self-initiated leadership actrvities. PREREQUI-
SITE: ROTC $1111,1112,2211$ SITE: ROTC 1111, 1112, 2211, 2212, or equivalent. [1803-8] 3212. Aerospace Studies SIx Week Fleld Training. (6). Fortytwo day course conducted during summer at active installation of USAF: Consists of approximately 258 hours of instruction on role of military forces, organization of Defense Department. instruments of national security. Arr Force base functions, leadership, physical training and Aur Force environment. Students are assigned to groups of twenty-five and individually counseled and evaluated on their performance. [1803-8]
3212. Alr Force Management and Leadershlp. (3). Professionalism, leadership and management. Includes meaning of professionalism, professional responsibilities, military justice system; leadership theory, functions and practices; management principles and functions; problem solving, and management, tools, practices and controls. Three class hours per week and one hour of "Leadership Laborafory [1803-1]
3213. Alr Force Management and Leadershlp. (3). Continuation of ROTC 3311. Three class hours per week and one hour
tor of "Leadership Laboratory. [1803-1]
3214. National Security Forces in Contemporary American Soclety. (3). Fundamental issues and requirements of national security. Extensive study of civil-military relations, nature of international environment and strategic requisites for detense. Three class hours per week and one hour of "Leadership Laborafory. [1803-1]
3215. National Security Forces in Contemporary American Soclety. (3). Continuation of ROTC 4411. Three class hours Society. (3). Continuation of ROTC 441 . Three class hours
per week and one hour of ${ }^{\circ}$ Leadership Laboratory. [1803-1] 4413. Elementary Aeronautics. (3). Introduction to aviation and the fundamental principles of flught; basic meteorology
and its applications to aviation; use of navigation computers. instruments. and radio aids: basic regulations governing airmen, aircraft operations, and flught satety preparation for FAA Private Pilot Written Examination. Three class hours per week [1803-1]
*Leadership Laboratory. Evolves around cadet corps, a microcosm of an Air Force organization. Opportunity for actual leadership training experiences as it is largely cadet planned and oper ated. Additionally. staff uses it as a means to evaluate and develop leadership potential. One hour per week.

AUDIOLOGY<br>AND SPEECH PATHOLOGY PROFESSOR DANIEL S. BEASLEY Chairman<br>Speech and Hearmg Center 807 Jefferson

The Department of Audiology and Speech Pathology offers majors at the graduate level only.
4100-6100. Audiology. (3). Directed toward undergraduate students from disciplines other than communication disorders. Include nature of sound. structure and function of the human auditory system, disorders of hearing, measurement of hearing and loss, hearing conservation, and aur al rehabilitation. (1220-1]

4200-6200. Speech Pathology. (3). Communication disorders with special reference to those encountered by educators and others in population 0-21. Observation and discussion of classroom management, roles of various specialists, and parent conferences. (1220-1]

## INTERNATIONAL STUDIES

ASSOCIATE PROFESSOR J. REX ENOCH, Director

Office of International Studres Old Brisfer Library. 130

Courses offered for the International Studies program with the cooperation of two or more University departments are isted below Although some of the interdepartmental courses at the upper-division level are designed primarily to serve the needs of students participating in interdisciplinary programs
enrollment in the courses is not limited to these studies.

## V935 INTERNATIONAL STUDIES (INTL)

1101. Analysis of Developlng Nations. (3). Interdisciplinary survey of developing nations, other societies and problems of technologically developing nations. Basic concepts and methods of social sciences employed to study processes of social change in cross-cultural comparison. NOTE: This course when
taken with ifs sequence INTL 1102 has been approved to satisty the socral science requirement of the University College (UNIV 1410). A student may not recerve credif for both INTL 1101-1102 and UNIV 1410. [2210-1]
1102. The Third World: A Reglonal View. (3). Interdisciplinary survey of contemporary developing nations within a major world region. Regional focus on Africa, Latin America, Southeast Asia, or Indian Subcontinent. [2210-1]
1103. Seminar In Latin American Studies. (3). Interdisciplinary seminar; focuses on specific theme or region in Latin America and incorporates significant materials from several disciplines in program in Latin American Studies. Written report will be presented for panel discussion. PREREQUISITE: permission of Latin American Studies advisor. [2210-1]
1104. Seminar In African Studies I. (3). Interdisciplinary seminar to integrate knowledge of Africa and to exercise competence in several disciplines through supervised research. PREREQUISITE: nine hours of course workin African studies representing three disciplines from group anthropology, geography, history, and political science, or permission of African Studies advisor. [2210-1]
1105. Seminar In African Studies II. (3). PREREQUISITE: INTL 4301. [2210-1]
1106. Seminar in international Relations. (3). Investigation of selected topics in international relations from interdisciplinary selected topics ininternationalrelationsireme. Individual research and presentation of major disciplines. PREREQUISITE: permission of International Relatoons advisor (2210-1)

## MEMPHIS STATE UNIVERSITY LIBRARIES

V945 MSU LIBRARIES (LBRY)
2010. Introduction to the Use of LIbrary Resources. (3). Introduction to organization of academic library material: emphasis on biblographic access to information-Lectures and assigned research problems to a acquaint student with general and specialized methods of access to library material. [1601-1]

## LIBRARY SCIENCE

PROFESSOR EVELYN GEER CLEMENT, Chairman

Room 101. John Willard Brister Library

V920 LIBRARY SERVICE (LIBS)
4111-6111. Llbrary Materlals for Children. (3). Evaluation and selection of books and related library materials for leisure
interests and curriculum needs of children through elementary school; extensive reading. introduction to selection criteria, bibliographic aids, authors and illustrators, and types of interature and information books. [1601-I]
4121-6121. Library Materials for Young People and Adults. (3). Evaluation and selection of books and related library materials for leisure interests and curriculum needs of young people and adults from junior high school up; extensive reading, introduction to selection criteria, bibliographic aids, authors and illustrators, and types of literature and information books. [1601-1]
4131-6131. Introduction to Bibllography. (3). Theory and purpose of bibliography as form of access to information; emphasis on general reference sources; introduction to prin-
4232-6232. Cataloging and Classification. (3). Introduction to princıples and techniques of cataloging and classification of books and other library materials. (1601-1]
4331-6331. School Llbrary Administration. (3). Organization and administration of elementary and secondary school libraries, including standards, evaluation, facilities, equipment, support, student assistants, and relationship to instructional and guidance programs of school. [1601-1]
4401-6401. Foundatlons of Llbrarlanship. (3), Introduction to librarianship as a profession and library as institution in cultural and political setting. Influence of social issues, societal needs, professional organizations, and tederal legislation on goals, ethics, organization, programs, and problems of goals, ethics, organization, pro
libraries and librarians. [1601-1]
Graduate courses in Library Science: For detalls of the
graduate program, see The Bulletin of The Graduate School.

## MILITARY SCIENCE

CAPTAIN DANE L. WOYTEK
Room 117, Health Center

## V955 MILITARY SCIENCE (ARMY)

1110. The Milltary and Amerlcan Soclety. (1). Role of the military in American Society: emphasis on changing roles from 1775 to present. Organization of the Army and recent trends as well as a comparison of US/USSR/PRC military strengths. by the Professor of Military Science. One lecture hour per yone
1111. Natlonal 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. Analysis of national security system and foreign policy since 1945. One lecture, one laboratory hour per week.
1112. Leadershlp and Management. (2). Study and application of principles and techniques of leadership and management at a small unit or group level. Decision making, motivating performance, and use and support of subordinate leaders emphasized. Taped situational problems discussed. Prerequisite for entry into the advanced program unless waived by the
Professor of Military Science. Two lecture, one laboratory Professor of Military Science. Two lecture, one laboratory hour per week.
1113. American Military History. (2). General knowledge and appreciation of development of American military system from Colonial times to present. Development of weapons and technology and their effects on tactics and strategy. Key battles in American history which illustrate the nine principles
of war through use of maps and sides. Two lecture hours per week.
1114. Combat Training of the Individual Soldler and PatrolIIng. (2). Emphasis on preparation of the individual for combat. Preparation of potential leaders in combat through study Two lecture, one laboratory hour per week.
1115. Tactics Strategy and War Games. (2). Basic fundamentals of planning, organizing and employing units in combat. The art and science of warfare, through war games, practice of skills in simulated situations. Two lecture, one laboratory hour per week.
1116. Basic Milltary Sclence. (1-6). Six-week training normally taken during the summer between the second and third years by those students who have not taken previous ROTC training, or who have not completed the required basic military science courses for advanced course enroliment
Training conducted at designated U.S. Army installation and Training conducted at designated U.S. Army installation and includes practical experience in leadership, small unit tactics,
weapons drill, and communications under field conditions. weapons drill, and communications under field conditions.
After completion of camp, student required to complete After completion of camp, student required to complete
satisfactorily an examination administered by Military Science satısfactorily an examınation administered by Military Science successful camp completion in order to receive appropriate credit. (S/U) PREREQUISITE: Permission of Professor of Military Science
1117. Advanced Military Science I. (4). First year of the advanced course includes military teaching principles, leaderadvanced course includes military teaching principles, leadership and exercise of command, map and aerial photograph
reading, small unit tactics. communication, field training exerreading, small unit tactics. communication, field training exer-
cises, branches of the Army and preparation for ROTC cises, branches of the Army and preparation for ROTC
Advanced Camp. Three lecture, two laboratory hours per Advanced Camp. Three lecture, two laboratory hours per
week. PREREQUISITE: ARMY 1110 or permission of Professor week. PREREQUISI
of Military Science.
1118. Advanced Military Science II. (4). Continuation of first year advanced course. PREREQUISITE: ARMY 3110.
1119. Advanced Military Sclence III. (4). Second year of the advaned course consists of training in operations, logistics, military administration, military justice, personnel management, and service orientation in preparation for call to active
duty. Three lecture, two laboratory hours per week. duty. Three lecture, two laboratory hours per week.
1120. Advanced Milltary Sclence IV. (4). Continuation of second year advanced course. PREREQUISITE: ARMY 4110.
1121. History of the U.S. Army, 1961 to Present. (3). Survey of U.S. Army's participation in world-wide and domestic affairs since 1961 . Stress given to social, economic and political
factors which have influence on the current military establishfactors which have influence on the current military establishment. Non-ROTC students accepted with consent of Professor of Military Science.
1122. Contemporary Devolopments In the U.S. Army. (3). Special topics and subjects pertinent to current and future force structure, research and development programs, and professional trends in U.S. Army. Student presentations on selected subjects. Non-ROTC students accepted with permission of Professor of Military Science.
1123. Leadershlp Seminar. (3). Advanced leadership concepts, approaches and practices as related to the military officer. Overview leadership and management principles as applied in education, business, industry, labor, government and medical related professions. Non-ROTC students accepted with consent of the Professor of Military Science
1124. Advance War Gaming. (3). Presentation of Battalion and Brigade level tactics emphasizing necessity of combined arms employment. Simulations used to re-create contemporary military conflicts. Studennts required to present or al book review of
3110 , or 3120.

## NURSING

PROFESSOR BONNIE W. DULDT, Chairman

Room 316, Manning Hall

## U970 NURSING (NURS)

3000. Pharmacology In Nursing. (3). Integration of knowledge from pharmacology and nursing to explore physiological and psychological reactions to drup therapy. Use, actions, and effects of major drug groups and appropriate nursing
responsibilities. PREREQUISITE: CHEM 1051 and 1052 . responsib
[1203-1]
3001. Individuallzed Study. (1-3). Directed individualized approach to increase nursing knowledge, understanding, and
skilis according to student needs and level objectives. Assessskilis according to student needs and level objectives. Assessence needed. May be repeated for maximum of 6 credit hours. Credit not applied toward B. S.N. degree. [1203-8]
3002. Nursing Theorles. (3). Introduces conceptual thinking and theoretical analysis of contemporary theories of nursing and related disciplines with application to nursing research students with permission of instructor. [1203-1]
3003. Heaith Assessment. (3). (3100). Focus on aspects of comprehensive health assessment of individuals and families, interviewing and history taking as well as physical assessment skills; problem oriented record as method of organizing data. Chnical laboratory. Open also to special students with permission of instructor. [1 203-1]
3004. Clinical Nursing 1. (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. Cinical laboratory. PRE- or COREQUISITE:
BIOL 3440 or NURS 3000 . /1203-1]
3005. CIInical 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. Clinical laboratory. PREREQ3440 or NURS 3000. [1203-1]
3006. Cllnical Nursing III. (6). Emphasizes conceptual approach 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. Clinical laboratory. PREREQUISITE:
NURS 3200 , COREQUISITE: NURS 4100 . PRE-or COREQUINURS 3200, COREQUISITE
SITE: EDRS 4541 [1203-1]
3007. Nursing Leedershlp. (3). Focus on theory, research, and practice of leadership roles in nursing groups within health care system; such concepts as communication, status, power motivation, change, conflict resolution, job satisfaction, and decision making in relation to nursing process and practice in
groups. Open also to special students with permission of groups. Open also to
instructor. (1203-1]
3008. Clinical Nursing IV. (6). Incorporation of curricular concepts into synthesizing and resocializing process. Student responsible for identifyıng 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 nur sing philosophy. Cinical
laboratory. PREREQUISITE: NURS 4000, 4100. COREQUISITE: EDRS 4542. [1203-1]
3009. Seminar in Nursing. (3). Stresses investogation int
areas of special interest, preparation of papers and report suitabie for publication. May be repeated when the topics varies for a maximum of six hours

## UNIVERSITY HONORS PROGRAM

PROFESSOR JOSEPH R. RILEY, Director

A description of the University Honors Program appears in section 7, Colleges and Degree Programs. Descriptions of the college and departmental programs are found with the appropriate major and degree descriptions

V960 UNIVERSITY HONORS PROGRAM (UNHP)
3100-3199. Junlor Honors Colloquium I. (3). Inter disciplinary colloquium on broad theme or topic. Specific course descripcions each semester in "Addenda" section of Schedule of tions each semester in Addenda section of Classes. PREREQURSt
Director of University Honors Program. [4999-1]
3200-3299. Juntor Honors Colloquium II. (3). Same as UNHP 3100, except different theme or topic. PREREQUISITES: junior standing and permission of Director of University Honors Program. [4999-1]
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. PREREQUU-
SITES. senior standing and SITES: senior standing and permission of Director of University Honors Program. [4999-8]
4200-4299, Senlor Honors Seminar II. (3). Same as UNHP 4200-4299, Senlor Honors Seminar iI. (3). Same as UNHP
4100, except different theme or topic. PREREQUISITES: 4100, except different theme or topic. PREREQUISITES:
senior standing and permission of Director of University senior standing and perr
Honors Program. [4999-1]
4300. Senlor 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 faculty committee chosen by the student and approved by the Honors Councit. PREREQUISITES: senıor standing and permission of the Director of the University Honors Program. [4999-8]

## URBAN STUDIES <br> ASSOCIATE PROFESSOR <br> MELVIN C. BARBER, Coordinator

A description of the inter disciplinary program in Urban Studies and the requirements for the major and minor in Urban Studies are listed in section 7, 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 prograrn, 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 participating disciplines which include urban anthropology urban geography, urban history, urban economics, urban politics, and urban soc:ology. Summary reviews of problems and proposed solutions in related fields presented. Required for all majors. [2214-1]
4002. Urban Studles Internship. (3). Supervised internship working with urban agencies in city, state or national level Internshup program deals primarily with data collection and analysis. (2214-5)

## INTERDISCIPLINARY STUDIES

(V933) INTERDISCIPLINARY STUDIES (INTD)
The following two courses, INTD 3510 and 3511, comprise an eight month training program in law enforcement in the National Park Service and the Tennessee State Park Service. The program is coordinated by the Department of Psychology and the area of Parks and Recreation of the Department of Health and Physical Education, and Recreation.
3510. Behavior Management In Recreation Areas I. (4). Concepts of industrial training and social psychology applied to teaching content and skills required for people-management positions as rangers in federal and state parks. Classroom instruction, readings and applied practical exercises inciuded. PREREQUISITE: permission of instructor
3511. Behavior Management In Recreation Areas II. (4). Advanced consideration of content and skills involved in managing people who visit recreation areas, including: abnormal behavior and human relations, basic accident investigation, alcohol and drug abuse, and courtroom testimony and
procedures. PREREQUISITE: INTD 3511 and permission of instructor.


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## FACULTY AND STAFF

The names, positions, and tities listed in this section refiect the status as of 1981-82.

## PRESIDENT'S OFFICE

THOMAS G. CARPENTER, Ph. D., President
FRED H. SIMMONS, B.S., Assistant to the President
BILLY J. MURPHY, B.S., Assistant to the President for AthletrCs
DAVID C. PORTEOUS, J.D., Legal CounseI
JOYCE KILPATRICK, M.B.A., C.P.A., Director of Internal Auditing

## ACADEMIC AFFAIRS

Jerry neal boone, Ph.D., Vice President for Academic Aftarrs
JOHN R. DILL. Ph.D., Associate Vice President-Academic Programs
VICTOR FEISAL. Ph. D., Associate Vice President for Academic Administration
EDMUND P. SEGNER, JR., Ph.D., Assocrate Vice President for Research
WILLIAM A. BROTHERTON. Ed.D., Dean of Extended Programs
MARANELL KHATEL, M.Ed., Director of Extended Programs
NOEL A. SCHWARTZ, M.Ed., Coordinator of Academic Pro grams
ALICIA TILLEY, Ed.D., Dean of Graduate Studies
DAVID M. VAUGHT. Ph.D., Dean of Academic Planning and Analysis
MARY GARDINER GRUENEWALD, M.Ed., Director of Instrtutional Research
NICHOLAS L. WHITE, J.D., Dean of The Cecil C. Humphreys School of Law
RAYMOND WILSON WALKER, Ed.S., Dean, Evening Academic Services
JOHN Y. EUBANK, JR., Ed.D., Dean of Admissions and Records
DAVID R. WALLACE, M.S., Associate Dean of Admussions and Records (Admissions)
ANDREW J. MORGRET, M.Ed., Associate Dean of Admissions and Records, (Records)
RaOUL A. ARREOLA, Ph.D. Director for Center for Instructional Service and Research

## STUDENT EDUCATIONAL SERVICES

donald k. Carson, Ph.D., Vice President and Dean of Students
DAVID A. COLLINS, M.S.. Assistant to the Vice President
MARION F. EMSLIE, Ed.D., Associate Dean of Students, Student Development
CLARENCE O. HAMPTON, M A., Associate Dean of Students, Student Life
AUTHUR S. HOLMON, M Ed., Associate Dean of Students, Minority Affarrs
ROBERT A. MARCZYNSKI, J.D., Assistant Dean of Students, Judicial Affarrs
JOHN J. ANDERSEN, M. S., Director of University Center
ALLEN J. HAMMOND, M Ed., Drector of Student Financial Ald
DENNIS E. HEITZMANN, Ph.D.. Director of Center for Student Development
N. DEWAINE RICE. Ed.D., Director of Residence Life

DONA S. SPARGER, MA., Director. Handicapped Student Services
WALTER S. WARREN, M B.A., Director of University Placement

## BUSINESS AND FINANCE

R. EUGENE SMITH, Ph.D., Vice President for Business and Finance
JOSEPH T. BOND II, B. B.A., Director of Purchasing
JOHN W. COTHERN. J.D., Assistant to the Vice President for Busmess and Finance
CHARLES JETTON, B.A., Director of Administrative and Business Services
BERGEN S. MERRILL, M.S.C.E., Director of Physical Plant and Planning
RAYMOND PIPKIN, M A., C. P.A., Director of Finance
ROBERT S. RUTHERFORD, B.A., Director of Security and Safety Services
BILL WILLIAMS, M.Ed. Assistant to the Vice President for Business and Finance

## CONTINUING EDUCATION AND SPECIAL PROGRAMS

JOHN A. RHODES. JR., Ph. D., Vice President for Continuing Education and Special Programs
SAMUEL BRACKSTONE, M.Ed., Director of Conferences and Seminars
ANN RUBLE, B.B.A., Assistant Director of Administration
MARYANNE HICKY, B.S. Assistant Director of Short Course Instruction
D. WAYNE JONES, Ph.D. Director of the Center for Nuclear Research
JAMES K. MUSKELLEY, Ed.D., Director of International Training Program

## UNIVERSITY COMMUNITY RELATIONS

CHARLES F. HOLMES, M A., Director of University Community Relations
THOMAS MITCHELL, B.F.A., Director of Art Services GILBERT F. MICHAEL, Director, Photographic Services DEBORAH A. WARRINGTON, B.A., Director of Media Relations MARY BYRD, B.A., Assistant Director of Media Relations WILLIAM E. DAVIDSON, J.D., Director of Publications THELMA DRAPER, Manager, Information Center

## UNIVERSITY ADVANCEMENT AND PUBLIC SERVICE

VAN N. OLIPHANT, D.B.A., Executive Assistant to the President
G. RICHARD BROWN, B.A., Director of Development

ROBERT L. COLLIER, M B.A., Associate Director for Public Service
J. ED WALLER, III, M.S., Director, Natronal Alumni Association CLARENCE WEISS, Ph.D., Director of Corporate Relations

## RESEARCH AND SERVICES

EDMUND P. SEGNER, JR., Ph.D., Associate Vice President for Research
NORMAN J. TRENK, M Ed., Director, Office of Sponsored Programs
PAULA GENE SWAN, M A., Assistant Director, Office of Sponsored Programs
LINZY D. ALBERT, M.A., Director, Regional Economic Develop ment Center
FREDERICK K BELLOTT, Ed. D., Director, Bureau of Educa tional Research and Services

LEWIS B. COONS, Ph.D., Director, Electron Microscopy Center JOHN GNUSCHKE, Ph.D., Director, Center for Manpower Studies
ARCHIBALDC. JOHNSTON. Ph.D., Director, Tennessee Earthquake information Center
PAUL R, LOWRY, M.B.A., Director, Bureau of Business and Economic Research
PAUL L. SCHWARTZ, M.S.W., Director, Center for Life Cycle Studies
DAVID COX, Ph.D., Director, institute of Govemmental Studies and Research
CARL E. HALFORD, Ph.D., Director, Bureau of Engineering Research

## INTERCOLLEGIATE ATHLETICS

ROBERT W. PATTERSON, M.A., Athletic Director ELMA ROANE, M.A., Assistant Athletic Director (Women) RAY TUCKER, Assistant Athletic Director for Marketing and Communication
BOB WYNN, B.A., Director Public Relations
PHIL CANNON, B.A., Ticket Manager and Director of Promotions

## THE COLLEGES AND DEPARTMENTS

## THE COLLEGE OF ARTS AND SCIENCES

JOHN H. WAKELEY, Ph.D., Dean of the College of Arts and Sciences
H. DELANO BLACK, Ph.D., Associate Dean

THOMAS R. CAPLINGER, Ph.D., Associate Dean
NANCY SIMCO. Ph.D., Director of Graduate Studies and Research
BONNIE S. McGEHEE, Graduation Analyst
JOANNE B. SIMS. M.S., Academic Advisor

## ANTHROPOLOGY

THOMAS W. COLLINS, Ph.D., Chairman

THOMAS W. COLLINS (1972), Professor, Chairman: B.S. 1957, Central Mıchıgan University; M.A., 1962, Western Mıchıgan University: M.A., 1967, Ph.D., 1971 , University of
Colorado Colorado
BILLYE Y. S. FOGELMAN (1975), Adjunct Assistant Professor: B.A., 1949, University of Texas; M A., 1970, Ph. D., 1972. Southern Methodist University
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## HOME ECONOMICS AND <br> DISTRIBUTIVE EDUCATION

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## UNIVERSITY COLLEGE

RAMSEY H. FOWLER, Ph.D., Dean of University College SUSANNE B. DARNELL, Ph.D., Assistant Dean
JAMESN. NEWCOMB, Ph.D., Academic Coordinator for Nuclear Studies
LYDIA A. BABAOGLU, B.A., Administrative Assistant to the Dean

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## INDEPENDENT DEPARTMENTS AND PROGRAMS

## AEROSPACE STUDIES

## LT. COLONEL JAMES C. KASPERBAUER, B.A., M.A., <br> Professor of Aerospace Studies

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## LIBRARY SCIENCE

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## MILITARY SCIENCE

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DANE L. WOYTEK (1981), Captain, United States Army: Professor of Military Science: B.A., 1972, University of Professor of

# 1983-84 TENTATIVE CALENDAR 

This calendar is tentative, and students should
check the 1983-84 BULLETIN and the SCHEDULE OF
CLASSES for possible changes or additions.

## FALL SEMESTER 1983

AUGUST 22-25: Off-campus registrations (exact dates, times, and locations to be announced prior to registration)
AUGUST 25: Meeting of the new members of the University faculty, University Center Ballroom 9:00 A.M.

AUGUST 26: Meeting of the entire University faculty, University Center Ballroom, 9:00 A.M., followed by meetings by colleges and departments
AUGUST 29: Registration: The Graduate School
AUGUST 29-31: Registration Week: For detailed dates and times, see the Schedule of Classes for the Fall Semester, 1983
SEPTEMBER 1: Classes meet as scheduled
SEPTEMBER 5: Holiday: Labor Day

## SEPTEMBER 8:

Last day for adding courses
Last day for making application to the Dean of Graduate Studies for degree to be conferred in
December, 1983. (File the "Intent to Graduate
Card" and submit "Application for Master's
Degree Candidacy" papers.)
SEPTEMBER 28: Last day for removing Summer Session "Incomplete" grades
OCTOBER 21:
Last day for undergraduate students to withdraw from the University
Last day for all students to drop courses
NOVEMBER 8: Last day for graduate students to withdraw from the University
NOVEMBER 23: Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in May, 1984
NOVEMBER 24-27: Thanksgiving Holidays
DECEMBER 8: Study Day
DECEMBER 9: Final examinations begin
DECEMBER 17: Commencement

## SPRING SEMESTER 1984

JANUARY 3-6: Off-Campus registrations (exact dates, times, and locations to be announced prior to registration)
JANUARY 9: Registration: The Graduate School

JANUARY 9-11: Registration Week: For detailed dates and times, see the Schedule of Classes for the Spring Semester, 1984
JANUARY 12: Classes meet as scheduled

## JANUARY 18:

Last day for adding courses
Last day for making application to the Dean of Graduate Studies for degrees to be conferred in May,
1984. (File the "Intent to Graduate Card" and submit "Application for Master's Degree Candidacy" papers.)
JANUARY 31: Last day for removing Fall Semester
"Incomplete" grades

## MARCH 2 :

Last day for undergraduate students to withdraw from the University
Last day for all students to drop courses

## MARCH 11-18: Spring Holidays

MARCH 27: Last day for graduate students to withdraw from the University
APRIL 13: Last day for making application to the dean of the appropriate undergraduate college for degree to be conferred in August, 1984
APRIL 26: Study Day
APRIL. 27: Final examinations begin
MAY 5: Commencement

## FIRST SUMMER TERM 1984

JUNE 5-6: Registration: For detailed dates and times, see the Schedule of Classes for the Summer Session, 1984
JUNE 7: Classes meet as scheduled
JUNE 11:
Last day for adding First Term courses
Last day for making application to the Dean of Graduate Studies for degrees to be conferred in August, 1984

## JUNE 22:

Last day for undergraduate students to withdraw from the University (First Summer Term)
Last day for all students to drop courses (First Summer Term)
JUNE 26: Last day for removing Spring Semester "Incomplete" grades
JUNE 23: Last day for graduate students to withdr aw from the University (First Summer Term)
JULY 4: Holiday: Independence Day
JULY 12: Final examinations

## SECOND SUMMER TERM 1984

JULY 16: Course adjustment day and registration for the Second Summer Term
JULY 12: Classes meet as scheduled

## AUGUST 1:

Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in December, 1984
Last day for undergraduate students to withdraw from the University (Second Summer Term)
Last day for all students to drop courses (Second Summer Term)
AUGUST 7: Last day for graduate students to withdraw from the University (Second Summer Term)
AUGUST 17: Final examinations
AUGUST 19: Commencement

## EXTENDED SUMMER TERM 1984

JUNE 5-6: Registration: for dates and times, see the Schedule of Classes for Summer Session, 1984
JUNE 7: Classes meet as scheduled
JUNE 11: Last day for making application to Dean of Graduate Studies for degrees to be conferred in August, 1984
JUNE 12: Last day for adding or registering for Extended Term courses
JUNE 26: Last day for removing Spring Semester "Incomplete" grades
JULY 4: Holiday: Independence Day
JULY 11:
Last day for all students to drop courses (Extended Term)
Last day for undergraduate students to withdraw from the University (Extended Term)
JULY 16-17: Mid-Term Break
JULY 25: Last day for graduate students to withdraw from the University (Extended Term)
AUGUST 1: Last day for making application to dean of appropriate undergraduate college for degrees to be conferred in December, 1983
AUGUST 16: Study Day
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AUGUST 19: Commencement

## A

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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 below. You may also phone (901) 454-2303 for information.

## ARE YOU INTERESTED IN LIVING ON CAMPUS?

If so, write your name and address below and return this form to the address above.

OFFICE OF STUDENT AID ROOM 314, SCATES HALL MEMPHIS STATE UNIVERSITY MEMPHIS, TN 38152

HOUSING INFORMATION OFFICE DEPARTMENT OF RESIDENCE LIFE ROOM 214, SCATES HALL 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, but, of course, you must have received your final acceptance before you assume occupancy of your room assignment. Memphis State University is committed to a policy of nondiscrimination with respect to race, religion, and national origin, and practices consistent with the University's policy are followed in housing.

## HANDICAPPED STUDENT SERVICES <br> Information Request

Name $\qquad$ Date of Birth

## Address

Phone
Social Security Number $\qquad$
Disability (Please Describe)

[^2]Section 504 of the Rehabilitation Act requires the follow. ing:
(A) Information concerning handicaps cannot be used in determining acceptance to the University.
(B) Information may be submitted on a voluntary basis only.
(C) Information submitted must remain confidential.

## INSTRUCTIONS FOR COMPLETING THE APPLICATION AND PROCEDURES FOR UNDERGRADUATE ADMISSION

## 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 section 2, Admission to the University, in 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.

Transfer: 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 atiendance 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 Adminıstration 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.

```
                    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
VETERAN AFFAIRS
READMISSIONS
    Jones Hall, Room 108, (901)454.2295
    Scates Hall, Room 212,(901) 454.2996
    Admınıstration Building Room 163,(901)454.2674
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Limited medical services are available in the University Health Center. If you wish to take advantage of these services, a health record is necessary. This form may be obtained in the Health Center.
MEMPHIS STATE UNIVERSITY OFFERS EQUAL EDUCATIONAL OPPORTUNITY TO ALL PERSONS WITHOUT REGARD TO RACE, RELIGION, SEX, CREED, COLOR, NATIONAL ORIGIN, OR HANDICAP.

PARAGRAPH 1. INTENT: It is the intent that the public institutions of higher education 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 tui. tion purposes and for admission pur. poses.

PARAGRAPH 2. DEFINITIONS: Wherever used in these regulations:
(1) Public higher educational institution shall mean a university or community college supported by appropriations made by the Legislature of this State.
(2) Residence shall mean continuous physical presence and 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 shall mean a person's true, fixed, and permanent home and place of habitation; it is the place where he intends to remain, and to which he or she expects to return when he or she leaves without intending to establish a new domicile elsewhere.
(4) Emancipated person shall mean a person who has attained 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 any legal obligation to support or maintain such deemed "emancipated person"
(5) Parent shall mean a person's father or mother; or if one parent has custody of an unemancipated person, the person having custody; or if there is a guardian or legal custodian of an unemancipated person, then such guardian or legal custodian; provided, that there are not circumstances indicating that such guardianship 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 mean enrollment at a public higher educational institution or institution of this State as a full-time student, as such term is defined by the governing body of said public higher educational institution or institutions, for a normal aca. demic year or years or the appropriate portion or portions thereof since the beginnins ${ }^{\circ}$ the period for which continuous enic'Iment is claimed. Such person need not enroll in summer sessions or other such inter-sessions beyond the normal academic year in order that his or her enrollment be deemed contınu. ous. Enrollment shall be deemed continuous notwithstanding lapses in enroll. ment occasioned solely by the scheduling of the commencement and/or termination of the academic years, or appro-
priate portion thereof, of the public higher educational institutions in which such person enrolls.

## PARAGRAPH 3. RULES FOR DETERMINA. TION OF STATUS:

(1) Every person having 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 classified out-of state for said purposes.
(3) The domicile 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 STU. DENTS WHO ARE NOT REQUIRED TO PAY OUT-OF-STATE TUITION:

(1) An unemancipated, currently enrolled student shall be reclassified out-of-state should his or her parent, having theretofore 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 enroll. ment at a public higher educational institution or institutions shall be continuous.
(2) An unemancipated person whose parent is not domiciled in this State but is a member of the armed forces and stationed in this State or at Fort Campbell pursuant to military 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-ofstate 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, and 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 classi-
fied as such by the individual public higher educational institutions of this state).
(5) Military personnel and 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 outof state 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 primarily for educational purposes.

PARAGRAPH 5. PRESUMPTION: Unless the contrary appears from clear and convincing evidence, it shall be presumed that an emancipated person does not acquire domicile in this 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 CON. SIDERED FOR ESTABLISHMENT OF DOMI.
CILE: If a person asserts that he or she has established domicile in this State he or she has the burden of proving that he or she has done so. Such a person is entitled to provide to the public higher educational institution by which he seeks to be classified or reclassified in-state, any and all evidence which he or she believes will sustain his or her burden of procf. Said institution will consioer any and all evidence provided to it concerning such claim 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 outof state. Appropriate procedures shall be established by each such institution by which a student may appeal his or her initial classification.

## PARAGRAPH 8. EFFECTIVE DATE FOR

 RECLASSIFICATION: If a student classified out-of-state applies for in-state classification and is subsequently so classified, 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 semes. ter during which reclassification is sought and obtaıned unless application for reclassification is made to the admissions officer on or before the last day of registration of that quarter or semester.PARAGRAPH 9. EFFECTIVE DATE: These regulations supersede all regulations concerning classification of persons for fees and tuition and admission purposes previously adopted by the State Board of Regents, and having been approved by the Governor, became effective May 1, 1975.

## APPLICATION FOR ADMISSION

DO NOT WRITE IN THIS SPACE

APPLICANTS MUST COMPLETE EVERY ITEM ON THIS FORM, SIGN AND DATE THE APPLICATION, AND RETURN WITH A $\$ 500$ NON-REFUNDABLE FEE UNLESS PREVIOUSLY PAID

Social Security Number

 11111


Address 1 Street Number end Neme

$\qquad$ Date of Giaduation $\qquad$
ddress
Citr
State
7ip Code
What is your name on your high school transcrlpt?
you have earned the high school GED equivalent, indicate date earned ave you taken a college entrance examination (ACT, SAT)?Yes $\square$ No
lave you registered and/or have you attended any college or university? $\square$ Yes $\square$ No yes, what is your name on your college transcript?
re you currently enrolled? $\square$ Yes $\square$ No

List ALL College experience including Memphis State If none, write NONE

| Name of College or University $\quad$ City \& State | Dates of Attendance Term Year) | Did you graduate? | If yes, Degree earned \& date |
| :---: | :---: | :---: | :---: |
|  |  | $\square$ Yes $\square$ No |  |
|  | (Term/Yea:) (Term/Year) |  |  |
|  |  | $\square$ Yes $\square$ No |  |
|  |  | $\square$ Yes $\square$ No |  |
|  | (Term/Year) (Term Year) |  |  |
|  | (Term/Year) (Term Year) |  |  |
|  | (Term Year) Term Year) | $\square$ Yes $\square$ No |  |
|  | Year) (Term | $\square$ Yes $\square$ No |  |
|  | (erm/Year) $\cdot \frac{}{\text { (Term Year) }}$ | $\square$ Yes $\square$ No |  |

Student Classification $\square$ SophomoreJuniorSeniorSpecial STUDENT LEVEL: (See Definitions on Page 145): $\square$ Regular Undergraduate $\square$ Unclassified

Special Undergraduate $\square$ Audit Only
lave you previously applied to MSU? $\square$ Yes $\square$ No If yes, indicate term and year id you attend? $\square$ Yes $\square$ No If yes, indicate term and year re you currently enrolled at MSU? $\square$ Yes $\square$ No oo you plan to earn an Undergraduate Degree at MSU?Yes
ndicate Major Field you wish to study
(Select from list on pages 9.12. If undecided, write UNDECIDED.)

OO NOT WRIIf IT * n+
SPACE SLREEN 1
01 $\qquad$ If no. what country Type of Visa

Do you plan to attend MSU with Veteran's Assistance? $\square$ Yes $\square$ No Have you been convicted of a crime other than a mınor traffic violation?Yes(If yes, attach statement) Are you employed full-tıme? $\square$ 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 contınuously 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?

## Do you consider yourself domiciled in Tennessee?

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 seivice?
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?
Are you a dependent of a person on active military duty $\square$ Yes $\square$ 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 enrollment at Memphis State University. I further certify that I agree to all regulations concerning American History as set forth in the University Bulletin and the laws of the State of Tennessee.

Signature
Date
Do Not Write Below This Line

## SCREEN



Bulletin of
Memphis State University 1982-83
Memphis, Tn. 38152

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[^0]:    ${ }^{*}$ A concentration in Russian requires a collateral foreign language concentration or a collateral major outside the Department of Foreign Languages.
    ${ }^{\dagger}$ 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.

[^1]:    Required Courses in the Lower Division: in addition to the
    lower division courses listed for a major in the Fogelman lower division courses listed for a major in the Fogelman
    College of Business and Economics, the following addiCollege of Business and Economics, the
    tional course is required MATH 1312 .
    Admission Standards to Five-Year Program: a student may apply upon the completion of the lower division work apply upon the completion of the lower division work
    described above if an overall grade point average of 25 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 B B A; PHIL 4513; ECON 4120 or FIR 4440; and two of the following. MGMT $3750,3760,4790$
    The Major in Accountancy: the 24 semester hours in the Accounting major listed above.
    Retention Standards: an overall grade point average of 2.75 with an average of 3.25 in accounting courses by the end of the sixth semester: an overall grade point average of
    3.0 with an average of 3.5 in accounting courses by the 3.0 with an average of 3.5 in accounting courses by the
    end of the eighth semester

[^2]:    Return To: Coordinator
    Handicapped Student Services
    Department of Special Education and Rehabilitation
    Memphis State University Memphis, Tennessee 38152
    Or Call: (901) 454.2731 weekdays between 8:00 AM-4:30 PM.

