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# UNDERGRADUATE ISSUE 




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The validity date for degree requirements is summer, 1988.
The University reserves the right to cancel or alter any part of this Bulletin without notice (subject to the following):

> 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 requlred 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 remalning provisions of this bulletin reflect the general nature of and conditions concerning the educational services of Memphis State University at this time, but do not constitute a contract or otherwise binding commitment between Memphls State and the student. Any fees, charges or costs, and all academic regulations set forth in this bulletin are subject to change at any
time, and all courses, programs and activities described in this bulletin are subject to cancellation or termination by Memphis State University or the State Board of Regents at any time.
The Institution provides the opportunity for students to increase their knowledge by providing programs of instruction in the various disciplines and programs through faculty who, in the opinion of the institution, are trained and quallfied 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 acqulre any specific knowledge or skllls or will be able to successfully pass or complete any specific examination for any course, degrew, or license. (SBR 2:04:00:01)

## MEMPHIS STATE UNIVERSITY

## The Seventieth session will open

August 28, 1981


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

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.

## Directory for Correspondence

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

| Admission | Dean of Admissions and Records (454-2101) |
| ---: | :--- |
| Alumni Affairs | Director of Alumni Affairs |
| 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 |
| Institutes and Conferences | Vice President, Public Service and Continuing Education |
| Off-Campus Courses | Vice President, Public Service and Continuing Education |
| Financial and Business Affairs | Director of Finance |
| Graduate Studies | Dean of Graduate Studies |
| Hre-Professional Curricula | Director of University Housing of the college in which the curriculum is offered |
| Publications | Office of University Community Relations |
| Registration | Dean of Admissions and Records |
| Scholarships and Loans | Director of Student Financial Aid |
| Transcripts | Dean of Admissions and Records |
| University Press | Director of Press |
| Veterans' Affairs | Coordinator of Veterans' Affairs |
| President of the University |  |
| Administration Building |  |
| (901) 454-2234 | Dean of Admissions and Records |
| (901) 454-2101 Building |  |

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## 1981-82 UNIVERSITY CALENDAR

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

## FALL SEMESTER 1981

AUGUST 24-27 Off-campus registrations (exact dates, times, and locations to be announced prior to registration)
AUGUST 27: Meeting of the new members of the Uni. versity faculty, University Center Ball room, 9:00 A.M.

AUGUST 28: Meeting of the entire University faculty, University Center Ballroom, 9:00 A.M., followed by meetings of colleges and departments
AUGUST 29: Registration: The Graduate School
AUGUST 31-SEPTEMBER 2: Registration Week: For detailed dates and times, see the Schedule of Classes for the Fall Semester, 1981

SEPTEMBER 3: Classes meet as scheduled
SEPTEMBER 7: Holiday: Labor Day

## SEPTEMBER 10:

## Last day for adding courses

Last day for making application to the Dean of Graduate Studies for degree to be conferred in December, 1981. (File the "Intent to Graduate Card" and submit "Application for Master's Degree Candidacy" papers.)
SEPTEMBER 30: Last day for removing Summer Session "Incomplete" grades

остOBER 2: Class Break (Classes will not meet)
OCTOBER 23:
Last day for undergraduate students to withdraw from the University
Last day for all students to drop courses
NOVEMBER 10: Last day for graduate students to withdraw from the university

NOVEMBER 25: Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in May, 1982.

NOVEMBER 26-29: Holidays: Thanksgiving
DECEMBER 10: Study Day
DECEMBER 11: Final examinations begin
DECEMBER 19: Commencement

## SPRING SEMESTER 1982

JANUARY 5-8: Off-campus registrations (exact dates, times, and locations to be announced prior to regis. tration)
JANUARY 9: Registration: The Graduate School
JANUARY 11-13: Registration Week: For detailed dates and times, see the Schedule of Classes for the Spring Semester, 1981.
JANUARY 14: Classes meet as scheduled

## JANUARY 20:

Last day for adding courses
Last day for making application to the Dean of Graduate Studies for degrees to be conferred in May, 1982. (File the "Intent to Graduate Card" and submit "Application for Master's Degree Candidacy' ${ }^{\prime}$ papers.)
FEBRUARY 2: Last day for removing Fall Semester "Incornplete" grades

## MARCH 5:

Last day for undergraduate students to withdr from the University
Last day for all students to drop courses
MARCH 14-21: Spring Holidays
MARCH 31: Last day for graduate students to wi draw from the University

APRIL 14: Last day for making application to the d $\epsilon$ of the appropriate undergraduate college for deg to be conferred in August, 1982

APRIL. 29: Study Day
APRIL 30: Final examinations begin
MAY 8: Commencement

## PRE-SUMMER SESSION 198:

## MAY 10: Registration

MAY 11:
Classes meet as scheduled
Last day for late registration
MAY 19:
Last day for undergraduate students to withd from the University
Last day for all students to drop courses
MAY 21: Last day for graduate students to withdraw
MAY 28: Final examinations

FIRST SUMMER TERM 1982

JUNE 1-2: Registration - For detailed dates a times, see the Schedule of Classes for the Sumn Session, 1982
JUNE 3: Classes meet as scheduled
JUNE 7:
Last day for adding First Term courses
Last day for making application to the Dean of Gr uate Studies for degree to be conferred in Augl 1982

## JUNE 18:

Last day for undergraduate students to withd from the University (First Summer Term)
Last day for all students to drop courses (First St mer Term)

JUNE 21: Last day for removing Spring Semester ' complete" grades

JUNE 24: Last day for graduate students to withd from the University (First Summer Term)

JULY 2: Holiday: Independence Day
JULY 8: Final examinations

## SECOND SUMMER TERM 198

JULY 12: Course adjustment day and registration the Second Summer Term

JULY 13: Classes meet as scheduled
JULY 15: Last day to add or to register for Sec Term courses
ast day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in December, 1982
ast day for undergraduate students to withdraw from the University (Second Summer Term) ast day for all students to drop courses (Second Summer Term)

GUST 3: Last day for graduate students to withdraw rom the University (Second Summer Term)

GUST 13: Final examinations
GUST 15: Commencement

## EXTENDED SUMMER TERM

 1982NE 1-2: Registration: For detailed dates and times, ee the Schedule of Classes for the Summer Sesion, 1981

NE 3: Classes meet as scheduled
NE 7: Last day for making application to the Dean o Iraduate Studies for degrees to be conferred in Au just, 1982

NE 8: Last day for adding Extended Summer Term ourses or registering for the Extended Summer

JUNE 21: Last day for removing Spring Semester "In. complete" grades

## JULY 2: Holiday: Independence Day

JULY 7:
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 12-13: Mid-Term Break
JULY 21: Last day for graduate students to withdraw from the University (Extended Summer Term)

JULY 28: Last day for making application to the dean of the appropriate undergraduate college for degree to be conferred in December, 1982

AUGUST 12: Study Day
AUGUST 13: Final examinations
AUGUST 15: Commencement

## NINE WEEK SUMMER TERM 1982

JUNE 1-4: Registration dates for Nine Week Term
JUNE 7:
Nine Week Term classes meet as scheduled.
Last day for making application to the Dean of Grao uate Studies for degrees to be conferred in August, 1982

JUNE 9: Last day to add Nine Week Term courses
JUNE 21: Last day for removing Spring Semester "In complete' grades

JULY 2: Holiday: Independence Day
JULY 5:
Last day for undergraduate students to withdraw from the University (Nine Week Summer Term)
Last day for all students to drop courses (Nine Week Term)

JULY 12: Change of course day Second Term Regis tration
Nine Week courses will not meet.
JULY 14: Last day for graduate students to withdraw from the University (Nine Week Summer Term)

JULY 28: Last day for making application to the dean of the appropriate undergraduate college for de grees to be conferred in December, 1982

AUGUST 4: Final examinations (Nine Week Term)
AUGUST 15: Commencement

Dead Week. Definition: The four day period preceding final examinations, beginning on the Monday before 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, transmis. sion, and application of knowledge. Sec ondly, 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 knowledge.

## 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 ac-
tion of the Tennessee legislature, the ins, tution was designated Memphis State $U$ versity.

## Governing Body

The governance, management a control of Memphis State University vested in the State Board of Regents. T seventeen member board includes four officio members: the Governor, the Co missioner of Education, the Executive rector of the Tennessee Higher Educati Commission, and the Commissioner Agriculture. Thirteen public members a appointed by the Governor: One memb is selected from each congressional d trict, four members are selected at lar from different geographical areas of t state, and there is one student member.
The members during the $1980-81$ y were as follow:

THE HONORABLE LAMAR ALEXANDER Governor of Tennessee, ex officio THE HONORABLE JERE GRIGGS, Commissioner of Agriculture, ex offic
THE HONORABLE ED COX, Commissioner of Education, ex officic
THE HONORABLE G. WAYNE BROWN, Executive Director, Tennessee Higher Education Commission, ex officio
THE HONORABLE JAMES H. JONES, JR Vice Chairman, Mount Pleasant
THE HONORABLE C. C. BOND, Chattanooga
THE HONORABLE J. C. EOFF, JR., Tullahoma
THE HONORABLE KENNETH EZELL, Murfreesboro
THE HONORABLE WILLIAM W. FARRIS, Memphis
THE HONORABLE DALE GLOVER, Obior
THE HONORABLE GWEN W. AWSUMB, Memphis
THE HONORABLE JOHNELLA H. MARTIN, Nashville
THE HONORABLE C. SCOTT MAYFIELD, Athens
THE HONORABLE KENT SYLER, Student Regent,
Middle Tennessee State University
THE HONORABLE ELLA V. ROSS, Johnson City
THE HONORABLE J. HOWARD WARF, Statutory, Hohenwald
THE HONORABLE DAVID WHITE, Knoxville

Memphis State University is the larg of the institutions of higher education I der the direction of the Board of Regen The other institutions with baccalaure: and graduate programs are Austin $\mathrm{P}_{\mathrm{t}}$ State University at Clarksville; East T, nessee State University at Johnson Ci Middle Tennessee State University at $M$ freesboro; Tennessee State University Nashville; and Tennessee Technologi University at Cookeville.

## Organization

Memphis State University is comprised four main divisions: Academic Affairs, isiness and Finance, Public Service and ntinuing Education, and Student Educanal Services. The schools and colleges ich comprise the University are The aduate School, The Schocl of Law and undergraduate colleges: Arts and Scices, Business Administration, Commu-
nication and Fine Arts, Education, Herff College of Engineering, and University College. In addition, there are six independent programs, two graduate (Audiology and Speech Pathology and City and Regional Planning) and four undergraduate (AFROTC, International Studies, 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 | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Anthropology | Anthropology |  | Bachelor of Arts (B.A.) <br> 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.) <br> Bachelor of Science (B.S.) |
| Chemistry | Chemistry |  | Bachelor of Arts (B.A.) <br> Bachelor of Science (B.S.) <br> Bachelor of Science in Chemistry (B.S.Ch.) |
|  | Physical Science |  | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| Criminal Justice | Criminal Justice | (1) Corrections <br> (2) General Criminal Justice <br> (3) Law Enforcement | Bachelor of Arts (B.A.) |
| Economics | Economics |  | Bachelor of Arts (B.A.) |
| English | English |  | Bachelor of Arts (B.A.) |
| 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.) |
| Seography | 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.) <br> Bachelor of Science (B.S.) |
| distory | History |  | Bachelor of Arts (B.A.) |
| hathematical Sciences | Mathematical Sciences | (1) Mathematics <br> (2) Applied Mathematics <br> (3) Computer Science <br> (4) Statistics | Bachelor of Arts (B.A.) <br> Bachelor of Science (B.S.) |
| hilosophy | Philosophy |  | Bachelor of Arts (B.A.) |
| hysics | Physics |  | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| olitical Science | Political Science | (1) Political Science <br> (2) Public Administration | Bachelor of Arts (B.A.) |
| sychology | Psychology |  | Bachelor of Arts (B.A.) <br> Bachelor of Science (B.S.) |
| - ociology 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.) |
| terdepartmental Programs | Comparative Literature |  | Bachelor of Arts (B.A.) |
|  | Medical Technology |  | Bachelor of Science in Medical Technology (B.S.M.T.) |

ncentration in Russian requires a collateral foreign language concentration or a collateral major outside the Department of Foreign Languages.
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 Bus-

Undergraduate Academic Programs

| THE COLLEGE OF BUSINESS ADMINISTRATION |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentration Within Major | Degree Offered (B.B.A.) |
| Accountancy | Accounting |  | Bachelor of Business Administration |
| Economics | Busıness Economics |  | Bachelor of Business Administration |
| Finance, Insurance, | Finance |  | Bachelor of Business Administration |
| Real Estate | 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 |
| Marketıng | Marketıng | (1) Advertising (Marketing Communications) <br> (2) Marketing Management <br> (3) Retailing <br> (4) Sales <br> (5) Transportation and Logistics | Bachelor of Business Administration |
| Office Admınistration | Office Admınıstratior: | (1) Secretarial <br> (2) Office Management | Bachelor of Business Administration |
| Interdısciplinary Program | International Business |  | Bachelor of Business Administration |
|  | $\dagger$ Foreign Languages |  |  |

In 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 <br> (Choral) <br> (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.) |
| 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 | Bachelor of Fine Arts (B.F.A.) |

Undergraduate Academic Programs
THE COLLEGE OF EDUCATION

| THE COLLEGE OF EDUCATION |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Department | 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 Business Education <br> Distributive Education <br> English <br> Foreign Languages <br> French <br> German <br> Latin <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> Typewriting <br> Economics, Consumer <br> Education, General <br> Business, <br> Business Law <br> Driver 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> Librarian <br> Mathematics <br> Psychology <br> Science <br> Biology <br> Chemistry <br> Earth \& Space Sciences <br> General Sciences <br> Physics <br> Social Studies <br> Economics <br> Geography <br> Government <br> History <br> Sociology <br> Special Education <br> Speech and Drama |  |
| Distributive Education | Distributive Education | Distributive Education |  | Bachelor of Science in Education (B.S.Ed.) |
| Health, Physical Education and Recreation | Health Education | Health Education | Health Education | Bachelor of Science in Education (B.S.Ed.) |
|  | Physical Education (Elementary) (Secondary) | Elementary Physical Education Secondary Physical Education | Elementary Physical Education Secondary Physical Education |  |
|  | *Recreation and Park Administration |  |  |  |
| tome Economics | *Home Economics <br> (Child Development) <br> (Dietetics) <br> (Food Administration) <br> (Merchandising-Fashion) <br> (Merchandising-Home <br> Furnishings) |  |  | Bachelor of Science in Home Economics (B.S.H.E.) |
|  | Vocational Home Economics (Occupational Child Care Services) (Occupational Clothing Services) <br> (Occupational Food Services) | Vocational Home Economics |  | Bachelor of Science in Education (B.S.Ed.) |
| ibrary Science |  |  | Library Service |  |
| $\begin{aligned} & \text { 1usic } \\ & \text { (College of Communication } \\ & \text { and Fine Arts) } \end{aligned}$ | Music Education (Instrumental Music) (School Music) | Music Education Instrumental Music School Music |  | Bachelor of Music Education (B.M.Ed.) |
| pecial Education and ehabilitation | Special Education <br> *Rehabilitation Education (General) OR (Rehabilitation of the Public Offender) (Vocational Evaluation) | Special Education | Special Education | Bachelor of Science in Education (B.S.Ed.) |

Undergraduate Academic Programs

| THE HERFF COLLEGE OF ENGINEERING |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentration Within Major | Degree Offered |
| Civil Engineering | Civil Engineering* | (1) Construction Engineering <br> (2) Environmental Engineering <br> (3) Foundation Engineering <br> (4) Structural Engineering <br> (5) Transportation Engineering | Bachelor of Science in Civil Engineering (B.S.C.E.) |
| Electrical Engineerıng | 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) Fluid Power Systems <br> (4) Mechanical Systems | Bachelor of Science in Mechanical Engineering (B.S.M.E.) |
| Engıneering Technology | Architectural Technology* |  | Bachelor of Science in Engineering Technology (B.S.E.T.) |
|  | Computer Systems Technology* |  | Bachelor of Science in Engineering Technology (B.S.E.T.) |
|  | Corıstruction Technology* |  | Bachelor of Science in Engineering Technology (B.S.E.T.) |
|  | Electronics Technology* |  | Bachelor of Science in Engineering Technology (B.S.E.T.) |
|  | Manufacturing Technology* | (1) Drafting and Design Technology* <br> (2) Forest Products <br> (3) Industrial Safety <br> (4) Production Management <br> (5) Supervision | 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 Engineer's Council for Professional Development.

| THE UNIVERSITY COLLEGE |  |  |  |
| :--- | :--- | :--- | :--- |
| 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.

| INDEPENDENT PROGRAMS |  |  |  |
| :--- | :--- | :--- | :--- |
| Department | Major | Concentration Within Major | Degree Offered |
| Nursing | Nursing |  | Bachelor of Science in <br> Nursing (B.S.N.) |
| Urban Studies | tUrban Studies | Bachelor of Arts (B.A.) |  |

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## ccreditation and Institutional Membership

he University is fully accredited by the thern Association of Colleges and ools and is a member of the Associaof American Colleges, the Tennessee lege Association, the American Associof Colleges for Teacher Education, American Council on Education and National Collegiate Athletic Associa1. The various colleges, schools and detments and/or the curricula are acdited by, or are members of, the owing:
editation Board for Engineering and Technology CPD)
rican Association of Collegiate Schools of Busiss
rican Association of State Colleges and Universi
rican Association of University Women
rican Bar Association
rican Chemical Society
rican College and University Concert Managers
rican Council on Education for Journalism
rican Psychological Association
rican Speech and Hearing Association
ciation of University Evening Colleges
d of Law Examiners of Tennessee
ncil on Social Work Education
onal Association of Schools of Music
onal Association of Summer Sessions
onal Commission on Accrediting
onal Council for Accreditation of Teacher Educa
nal League for Nursing
onal Opera Association
Zidge Associated Universities
hern Universities Student Government sociation
essee Board of Nursing
essee Education Association

## :ACILITIES AND SERVICES

he facilities and services described belare some of the many available to Uniity students and faculty. Some of the or facilities and services are described ne particular college and department ons of the Bulletin

## vening Academic Services

R. WILSON WALKER, Dean Idministration Building, Room 165

e Evening Academic Services office cides the full range of academic ser$\Rightarrow$ to evening and Saturday students nally available to regular day students. iservices include academic advising; rer, vocational, personal, and change lajor counseling; registration assistif; transcript request and evaluations; ise drop, add and withdrawals; finanind, health service and other referrals; issions and readmissions counseling; istation information; traffic and parkjees, decals and tickets; Notary Public rces.

## Library Facilities

ESTER J. POURCIAU, JR., Director
Brister Library, Room 101A
Te libraries of Memphis State Univer. ynclude the John Willard Brister Li.
brary 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 850,000 bound volumes and some 1,750,000 pieces of micromaterial.
The Brister Library contains a reference and bibliography section, an inter-library 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 assignment 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

DAVID M. VAUGHT Director Administration Building, Room 112

Computing support for the instructional program of the University and for faculty research is provided by Computer Services. The central computing system is a Xerox Sigma 9 computer which has 1024 K bytes 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 Engineering, the College of Business Administration, the Administration Building, and the Mathematics and Foreign Language Building.

## Center for Instructional Service and Research

RAOUL A. ARREOLA, Director Brister Library, Room 202

The primary mission of the Center for Instructional Service and Research is to provide a series of instructional support, development, and evaluation services to the University community. The services are provided by 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 (Seed Grant) Programs which provide 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 stu-
dents 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 Division has a full array of media services including film previewing, graphic production, and video tape duplication. The division also operates the University's film and audio-visual equip. ment 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 a modern television studio for use in courses offered by various departments and in the production of instructional material in the video mode.

University Development Program<br>LOUIS MARKWITH, Director Administration Building, Room 311

The goal of the University Development Program is to generate private gift support for the University's academic programs. It solicits contributions, gifts and bequests for the advancement of Memphis State University as an institution of excellence. Resulting gifts are utilized for student scholarships, departmental projects, research, visiting distinguished professors, faculty salary supplements, visiting lecturers, library and art acquisition and similar activities of benefit to the University.

The University's Office of Development is the coordinating agency charged with the responsibility of achieving the objectives enumerated above through activities of the Annual Fund, President's Council, Memphis State University Foundation, special recognition clubs, Greater Memphis State Incorporated, etc.

## Memphis State University Press

J. RALPH RANDOLPH, Director Administration Annex, Rom 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 GRADUATE PROGRAMS 

## Public Service and Continuing Education

JOHN A RHODES, JR., B.S., M.S., Ph.D.,<br>Vice President<br>360 Administration Building

## Instructional Services

The Office of Public Service and Continuing Education offers instructional ser vices enriching 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.

## Residence Centers

Institutional services of the University are extended to areas off the campus and through educational television. Undergraduate, graduate, and non-credit short courses are given at locations within the state where suitable advance arrangements are made. The subject matter of such courses is the same as that of courses taught on the campus.

Correspondence is invited with groups or individuals who are interested in any phase of this program. Please address all inquiries and suggestions to the Vice President, Office of Public Service and Continuing Education.

## Conference Services

This service provides CEU and noncredit 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 so as to provide a wide variety of educational opportunities for adults throughout the Mid-South. The staff of the office assists in planning programs, preparing and distributing printed materials, engaging conferences and institutes. 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 Special Programs, phone 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 formal admission, grades and examinations. The courses offered do not duplicate credit courses described in the Bulletin. A complete catalog of non-credit courses to be offered is printed prior to the beginning of each semester and may
be obtained by contracting the Division of Extended Programs, phone 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 equipment. Educational programs in the Center for Nuclear Studies are administered through the Office of Public Service and Continuing Education.

## Continuing Education Unit

Participants in certain approved programs sponsored by the Office of Public Service and Continuing Education are now 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 for each individual. Participants may obtain a transcript of their participation upon request to the Records Office. Copies will be forwarded to designated groups, associations, or employers when requested by participants.

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

## Public Service

The University's diverse community is served through several special activities of the Office of Public Service and Continuing Education. Through participation in the Tennessee Regional Training Network for Government Employees, several short course programs in motivation, supervision and management are offered for employees of local government agencies. The Human Services Co-Op provides information referral and program assistance to social service agencies. The Adult Resource Center offers its services to adult
students who are either returning to lege after a long absence or are begin an academic program late in life. Pu Service programs such as these bring University closer to the entire commun

## The Graduate School

EDMUND P. SEGNER, JR., B.S.C.E. M.S.C.E., Ph.D. Associate Vice President for Researc ALICIA C. TILLEY, B.S., M.Ed., Ed.D.
Dean for Graduate Studies
Administration Building, Room 31 ?

## Purpose

The Graduate School of Memphis $\subseteq$ University is the center of advanced $s$ and research within the university. basic objectives of The Graduate Sc are (a) to preserve and disseminate kn edge; (b) to extend knowledge througl search; and (c) to prepare men. women to assume a more responsible ? useful role in a changing society.

## Admission

The Graduate School is open to per:i holding the bachelor's degree from? leges and universities recognized standard, general and regional accri ing agencies, and whose undergrad $t$ work has been of sufficient quality scope to enable them to pursue grad 1 study profitably. Satisfactory entranci amination scores are required for all dents who seek to be admitted to grad study. A prospective student should tact The Graduate School Office to a: tain admission requirements and the $p$ propriate examination to be taken.

The regulations and policies of Graduate School are explained in grie detail in The Graduate School Bulletin plication for admission must be mady the admission application form sup by The Graduate School. Inquiries cerning The Graduate School shoul addressed to the Dean of Graduate ! ies.

## Programs

A student may study in thirty-ninite partments with various majors and $i$ of specialization. The master's degr offered by each of the thirty-nine den ments. The Doctor of Philosophy degı offered through the departments o diology and speech pathology, bic ly chemistry, history, mathematical ' ences, and psychology. The Doctor oil sical Arts is offered through the $D \in$ ment of Music. The Doctor of Educ o and Education Specialist degrees aı? fered through various departments vil the College of Education. The Doct Business Administration degree is of $\varepsilon$ through the College of Business Adr tration.

## GRADUATE ACADEMIC PROGRAMS

| GRADUATE ACADEMIC PROGRAMS |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentrations | Degree Offered |
| Accountancy | Accounting |  | Master of Science (M.S.) |
|  | Business Administration | Accountancy | Master of Business Administration (M.B.A.) |
| Anthropology | Anthropology | (1) Urban Anthoropology <br> (2) Medical Anthropology <br> (3) Archaeology | Master of Arts (M.A.) |
| $\overline{\text { Art }}$ | Studı Art | (1) Painting <br> (2) Sculpture <br> (3) Printmaking <br> (4) Graphic Design <br> (5) Interior Design | 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 | $\begin{array}{\|l\|} \hline \text { Master of Arts (M.A.) } \\ \text { Doctor of Philosophy (Ph.D.) } \end{array}$ |
| 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.) |
| 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 Engıneering | Civil Engıneering | (1) Environmental Engineering <br> (2) Foundation Engineering <br> (3) Structural Engineering <br> (4) Transportation Engineering | Master of Science (M.S.) |
| Departments of the College of Business Administration | Business Administration | (1) Accountancy <br> (2) Finance, Insurance, Real Estate <br> (3) Law <br> (4) Management <br> (5) Marketing <br> (6) Economics <br> (1) Accountancy <br> (2) Applied Economics <br> (3) Finance <br> (4) Management <br> (5) Management Science <br> (6) Marketing | Master of Business Administration (M.B.A.) <br> Doctor of Business Administration (D.B.A.) |
| ounseling and Personnel Services | Guidance and Personnel Services | (1) Elementary School Counseling and Guidance <br> (2) Secondary School Counseling and Guidance | Master of Education (M.Ed.) |
|  |  | (3) General Counseling and Guidance <br> (4) Community Agency Counseling <br> (5) Student Personnel Services <br> (6) Corrections Counseling | 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.) |
| riminal Justice | Criminal Justice |  | Master of Arts (M.A.) |
| terdepartmental (Education) | 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 | Master of Science (M.S.) <br> Master of Education (M.Ed.) |
|  |  | (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 Teachıng (M.A.T.) |
|  |  | (14) Early Childhood Education | (M.S.) (M.Ed.) (M.A.T.) |
|  |  | (1) Music Education | Education 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 | Education Specialist (Ed.S.) <br> Doctor of Education (Ed.D.) |


| GRADUATE ACADEMIC PROGRAMS |  |  |  |
| :---: | :---: | :---: | :---: |
| Department | Major | Concentrations | Degree Offered |
| Interdepartmental (contınued) | Curriculum and Instruction (continued) | (14) Secondary Education <br> (15) Social Studies Education | Education Specialist (Ed.S.) <br> Doctor of Education (Ed.D.) |
| Distributive Education | Distributive Education |  | Master of Education (M.Ed.) |
| Economics | Economics |  | Master of Arts (M.A.) |
|  | Business Admınıstration | Economics | Master of Business Administration (M.B.A.) |
| Educational Administration and Supervision | Educational Administration and Supervision | (1) General <br> (2) Elementary <br> (3) Secondary | Master of Science (M.S.) Master of Education (M.Ed.) |
|  |  | (1) Superintendency <br> (2) Elementary <br> (3) Secondary | Education Specialist (Ed.S.) |
|  |  | (4) Higher Education | Education Specialist (Ed.S.) <br> Doctor of Education (Ed.D.) |
|  |  | (1) General <br> (2) Adult, Continuing and Community Education | Doctor of Education (Ed.D.) |
| Electrical Engineerıng | 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.) |
| Engıneering Technology | Technical Education | (1) Architectural <br> (2) Construction <br> (3) Electronics <br> (4) Manufacturing <br> (5) Industrial Arts | Master of Science (M.S.) |
| English | English |  | Master of Arts (M.A.) |
| Finance, Insurance, Real Estate | Finance |  | Master of Science (M.S.) |
|  | Business Admınistratıon | Finance, Insurance, Real Estate | Master of Business Administration (M.B.A.) |
| Foreıgn Languages | Romance Languages | (1) French <br> (2) Spanish | Master of Arts (M.A.) |
| Foundations of Educatıon | 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 | Education Specialist (Ed.S.) |
|  |  | (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.) <br> Master of Science (M.S.) |
| Geology | Geology |  | Master of Science (M.S.) |
| Health, Physical Education and Recreation | Health, Physical Education and Recreation | (1) School Health <br> (2) Community Health | Master of Education (M.Ed.) Master of Science (M.S.) |
|  |  | (3) Physical Education | Master of Education (M.Ed.) |
|  |  | (4) Recreation | Master of Science (M.S.) |
| History | History |  | $\begin{aligned} & \text { Master of Arts (M.A.) } \\ & \text { Doctor of Philosophy (Ph.D.) } \end{aligned}$ |
| 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 Education (M.Ed.) Master of Science (M.S.) |
| Management | Management |  | aster of Science (M.S.) |
|  | Busıness Adminıstration | (1) Management <br> (2) Management Science | laster of Business Administration (M.B.A.) |
| Marketıng | Marketıng |  | Master of Science (M.S.) |
|  | Business Administration | Marketing | Master of Business Administration (M.B.A.) |
| Mathematical Sciences | Mathematics | (1) General Mathematıcs <br> (2) Statistics <br> (3) Computer Sciences | Master of Science (M.S.) |
|  |  | (1) College Teaching <br> (2) Applied Statistics | Doctor of Philosophy (Ph.D.) |

## GRADUATE ACADEMIC PROGRAMS

| Department | Major | Concentrations | Degree Offered |
| :---: | :---: | :---: | :---: |
| Mechanical Engineering | 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> (i) Percussion <br> (k) Harpsichord <br> (I) Opera Production and Directing <br> (2) Sacred Music <br> (3) Music Theory <br> (4) Music History <br> (5) Orff-Schulwerk <br> (6) Suzuki Pedagogy (Piano) | Master of Music (M.Mu.) |
|  |  | (7) Musical Arts: Ethnic Music (South Central Region) | Master of Arts (M.A.) |
|  | Music Education |  | Master of Education (M.Ed.) |
|  | 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 Admınistration | Busıness Education and Office Management | Business Education | Master of Education (M.Ed.) <br> Master of Science (M.S.) |
| Philosophy | Philosophy |  | Master of Arts (M.A.) |
| Physics | Physics |  | Master of Science (M.S.) |
| Planning | City and Regional Plannıng | (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 Admınistration | (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 Admınistration | Master in Public Administration (M.P.A.) |
| Psychology | Psychology | (1) General Psychology | Master of Science (M.S.) |
|  |  | (2) Psychological Services | Master of Arts (M.A.) |
|  | School Psychology <br> 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 | Master of Arts (M.A.) <br> Doctor of Philosophy (Ph.D.) |
| Sociology and Social Work | Sociology |  | Master of Arts (M.A.) |
| Special Education and Rehabilitation | Special Education and Rehabilitation | (1) Educatıonally Handıcappıng 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.) <br> Education Specialist (Ed.S.) <br> 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 Firie Arts (M.F.A.) |

# 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 regular program and attend classes during the day, or in an extended program and attend classes in the evening. A student in the regular program may graduate in three academic years. A student in the extended program may graduate in four academic years plus work in summer sessions. A student regularly
employed more than 15 hours per week may not pursue the regular 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 Services, Box

2000, Newtown, PA 18940. Questic concerning additional admissions requi ments should be directed to the Direc of Law Admissions and Student Recri ment.

Admission to advance standing may given to a student who qualifies for adm sion and who is eligible for reenrollmen the law school in which his previous wi has been taken, provided that such sch is on the approved list of the Americ Bar Association.

The regulations and policies of School of Law are set out in greater de in a separate bulletin. Applications for mission must be made on forms suppl by The School of Law. Inquiries should addressed to the Director of Law Adr sions and Student Recruitment, Ro 201, Law Building.


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## ADMISSION TO THE

 UNIVERSITYMemphis 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. An application form is located in the back of this Bulletin. Undergraduate students may enter at the beginning of either of the reg ular semesters or at the beginning of any term of the summer session. Nursing students may enter that department only at the beginning of the fall semester.

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 application 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, which are indicated below, 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.

From time to time, the University also establishes special admission requirements for selected groups of students to whom the University offers assistance beyond that available to students who meet regular admission requirements.

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 relsiated to inactive status and must be suburitted again before an admission decision can be made.

## ADMISSION AS REGULAR UNDERGRADUATES

## Freshmen

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 nonaccredited high school must take the General Educational Development test and earn an average standard score of at least 45. This GED requirement is waived for students who earn the minimum unconditional score on the ACT. 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 Coll Testing Program. These scores should be rished directly from A.C.T. Applicants who not recent high school graduates may reques entrance examination administered by the versity. Under special circumstances, SAT scc will be considered. Special testing arrangeme may be made for handicapped persons by tacting the Testing Center or by telephor (901) 454-2428.

The ACT requirements are as follow:
ACT 16 - No specific high school grade erage required.
ACT $15-2.00$ cumulative high sclil grade average.
ACT $14-2.25$ cumulative high scl grade average.
Applicants who earn a composite score of 14 15 on the ACT and have less than the requi average are eligible for retesting by use of School and College Ability Test. A total score at least 17 is required for admission. Applici with an ACT composite score of 13 and any who has been out of high school for a perio six months or more are eligible to take the Scl and College Ability Test (SCAT), regardless high school average. A total score of at leasi is required for admission.
Students are urged to vist or telephone the Ot of Admissions (prior to or after making app tion) for additional information or clarification test score requirements.

## 3. Age

An applicant must be at least 16 years of age
4. Character

The applicant must submit evidence of character. All applicants must have honor. dismissal from the last high school attended.

## Transfer Students

An applicant who has attended any credited or approved college or univer must apply as a transfer student. The tablished deadlines for applying are gust 1 for the fall semester; Decembel for the spring semester, and May 1 for summer session. The applicant will be quired to request that a transcript fr each college attended be sent directly? the Admissions Office.

Admission will be granted only to a : dent who has honorable dismissal from accredited institution and whose cum tive quality point average meets the quired minimum cumulative QPA on sliding scale retention policy. See sect 5, Academic Regulations.

Transfer students who have been proved for admission will be entered academic probation when (1) the que point average is less than 1.50 in the term of enrollment or, (2) when no good academic standing at the last sct attended or, (3) when the quality point erage is below that outlined on the slic? scale retention policy.

A transfer applicant with less than semesters in full-time residence (or fe than 30 semester hours of part-time w must meet the admission requirement beginning freshmen in addition to haig a satisfactory college record.

Transfer applicants not meeting University minimum quality point avere requirement must submit acceptable ! I or SAT scores or must take an exam tion administered by the University earn an acceptable score.

A transfer student who has failed. work at another institution and is not it tled to continue there will not be admi to the University except under unusual cumstances.
transfer student who is denied admis may have his application reconsid$d$ after an appropriate period of time elapsed. Consideration will not norly be given until the next regularly eduled term.

## International Students

lemphis State University is authorized er federal law to enroll non-immigrant, n students on "F-1" student visas. Apations and all supporting documents st be received in the Admissions Office east 120 days prior to the beginning of istration for the intended term of entry. established deadlines for applying are 1 for the fall semester, September 15 the spring semester, and February 1 the summer session.
lemphis State University believes that presence of a balanced representation nternational Students on campus will ich the educational environment of all dents.
iternational applicants should write to Office of Admissions for information application procedures, qualifications, admission to the University. Since e is considerable variation among edtional systems throughout the world, rnational applicants will be selected on ompetitive basis; after meeting the imum standards of admission using mination scores, grade point average, vance of academic background to inded major field of study and recomndations from the World Survey of Eduon. The University often receives more lications than can be approved; there, admission cannot be granted to all licants who meet only the minimum uirements.
ince the enrollment of international dents is based on a global sampling representation, priority will be given applicants with exceptional credentials will be attending a university in the ted States for the first time.
II transcripts, test scores, and other dentials must be accompanied by an ial English translation of these docuhts and must be on file in the Internaal Student Office by the stated deads prior to the beginning of registration the intended term of entry.

## Reourements

All International applicants whose native tongue s not English are required to take the Test of English as a Foreign Language (T.O.E.F.L.) or its equivalent. The student should write T.O.E.F.L., -ducation Testing Service, Princeton, New Jersey 08540, U.S.A., to request information and egistration forms. In addition, all freshmen in ernational students should take the Scholastic Aptitude Test (S.A.T.) or its equivalent. The stulent should write S.A.T., C.E.E.B., Education esting Service Box 592, Princeton, New Jersey p8540, U.S.A., for examination information. Satsfactory scores on both the S.A.T. and the -O.E.F.L., or their equivalents, are required for dmission.
student on an F-1 visa should supply, on the orm provided by Memphis State University, suf icient evidence of financial support for himself ind for all members of his family who will ac ompany him to Memphis. This requires that he ertify that his intent is to attend the University ill-time and that no employment will be reuired.
3. An International applicant must be in good phys ical health as certified by a licensed physician Prior to acceptance, an international applicant must provide certification from a licensed physician of good overall health and freedom from all communicable diseases, including tuberculosis In addition, 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 a student either has tuberculosis or has potential tuberculosis requiring medical treatment, contin ued enrollment will be conditioned upon the determination by a licensed U.S. physician that enrollment does not present a risk to others and upon the student's compliance with any prescribed medical treatment program.
4. All International students must purchase health insurance before they are allowed to enroll.
5. 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 regis tration for the proposed term of entry.
6. 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.
7. International students who wish to apply for re admission to the University must meet the dead lines stated above.
8. The International student must become tamiliar with the regulations of the Immigration and Naturalization Service and assume responsibility for complying with these regulations.

## SPECIAL CATEGORY STUDENTS

Students 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. A student 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 Students

A student 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, subject to the following:
Have the institution which awarded the degree send to the Office of Admissions a statement indicating the degree earned and the date it was awarded. (Note: If the student later decides to become a regular
transfer student and work toward another degree, transcripts of all college work and an application for change of classification will have to be submitted.)

## Unclassified Students

A student 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 currently/previously enrolled in an ac credited 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. (Students who have already earned a baccalaureate degree from an accredited college or university must apply as special undergraduate students.)
2. 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.

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 18 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. 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. NOTE: Transient students should apply in the unclassified category.

## 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 betore 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 above average score on the examination administered by the American College Testing Program.
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 Admis-
sions 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.

## Courses for Senior Citizens and Students with a Total Disability

Any person who is totally disabled, and persons sixty-five (65) years of age or older, who are domiciled in Tennessee, may enroll for courses for credit at the cost of $\$ 9$ per semester 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.

## 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 collegiate level institutions for courses which are 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.

All credits are transferred at their original grade. If the quality point average on such transferred credits is less than " C ", the cumulative quality point average must be brought up to a " C " by higher grades at Memphis State University before the student can qualify for graduation.

Transfer credit from vocational 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 and evaluated as college level.
2. Credit for Service in the Armed Forces: Veterans who have completed one year or more of 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 correspond-
ence and extension courses is 33 sem ter hours, and 20 semester hours for lected service schools. (This restrict does not apply to credit accepted by University College.) An official evaluat of service credit is not made until a dent enrolls as a regular undergradu student. Credit awarded for completior selected service schools will be gover by the recommendations outlined in current Guide to the Evaluation of Edu tional Experience in the Armed Services 3. Veterans: The Veterans Administrat requires that each veteran declare a $f$ gram of education, regardless of categs in order to receive an educational ass ance allowance. It is therefore necess for each veteran in a special category declare a program of education whet he expects to complete that program Memphis State University or elsewh Veterans in the special category of ": classified" at the freshman and sop more levels may declare their program education as bachelor's degree and th major as undecided. Veterans in uncla fied category at the junior or above If and all veterans in the special undergr uate category must declare a specific gree objective and a major whether degree is to be earned at Memphis St University or elsewhere.
4. Noncollegiate Sponsored Instructi Credit may be obtained for applica courses completed through certain $n$ collegiate sponsored instruction as reci mended in the current A Guide to Edt tional Programs in Noncollegiate Org zations. No more than 20 semester ho credit for service schools and/or nonce giate sponsored programs will be allow The Transfer Affairs section of the Adr sions Office should be contacted for ther information.
5. Residency Classification: All determ tions concerning the classification students as in-state or out-of-state for paying and other purposes are madi the Office of Admissions and Recol The determinations are based on the I ulations and guidelines of the State Bo of Regents. A copy of the guidelines regulations used in the classification students for fee-paying purposes is fot with the application in the back of this letin. If, for any reason, there is a ques about a student's residency classifica for fee-paying purposes, it is his or he! sponsibility to check with the Admissi Advisor for Residencey.

## 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 fi nancial 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 com-
munity, 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 Charge 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 reenrolled until the obligations are paid.
MAINTENANCE FEE: All students, whether in-state or out-of state, pay a maintenance fee. Undergraduate fees are $\$ 26.00$ per semester hour, not to exceed a maximum of $\$ 278.00$. 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.

Graduate fees are \$32.00 per semester hour, not to exceed a maximum of $\$ 323.00$. Fees payable are based on the course level, and the maximum fees will be the graduate maximum if a student is enrolled for any graduate hours.

The summer session consists of two separate terms of approximately six weeks each, plus an extended term for specified courses. Fees for the summer session are determined solely on a semester hour basis. The semester hour charge is $\$ 26.00$ for maintenance fees and an additional $\$ 53.00$ 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 enrollme and residency classification. Any ov collections will be refunded, and stude will be billed for any under-collections.
TUITION: Students classified as n residents are charged an additio $\$ 612.00$ per semester for full-time s dents or $\$ 53.00$ per semester hour part-time students Thus, an out-of-st full-time student is charged $\$ 890.00$. out-of-state student who is enrolled p time is charged $\$ 79.00$ per semes hour.

The Office of Admissions and Reco's is charged with the responsibility of signing a residency classification to ei student using regulations provided by Board of Regents. The student may peal the decision to the Committee on sidency. Residency regulations of Board of Regents and information on peals procedures are available in the fice of Admissions and Records. A copi the guidelines for residency classificat is also found with the application in back of this Bulletin.
UNIVERSITY COLLEGE FEES: In addit to their $\$ 5.00$ application fee, studes who apply to the University College m pay a screening fee of $\$ 15.00$, whict non-refundable. If accepted into the versity College, the student must pa: non-refundable contract-advising fee $\$ 25.00$.

Students who apply for credit for exp iential learning will pay $\$ 15.00$ per cr hour granted after evaluation of th learning and assignment of credit. : those students who are enrolled unde group contract, no more than a maxim fee of $\$ 90.00$ will be assessed for crei assigned under the terms of the gri contract.
COURSES IN APPLIED MUSIC: The fee applied music shall be $\$ 30.00$ per sem. ter for each one-half hour lesson.
STUDENT ACTIVITY FEE: All students rolled for one credit hour or more will a $\$ 1.00$ student activity fee. The amo is $\$ 1.00$ regardless of the total numbe hours for which the student is enrol There is no activity fee during the sumb terms.

## REFUND OF FEES (MAINTENANCE FE

 OUT-OF-STATE TUITION, MUSIC FEI The following refund percentages appl students who withdraw from the Uni sity or who drop to an hourly load be full-time:1. $100 \%$ Refund: A full (100\%) ref of fees will be made for courses celled by the University.
2. $\quad 75 \%$ Refund: The University provis a $75 \%$ refund of enrollment fees ginning at the moment of registra and extending for a period of timt's noted in the term calendar for the mester.
3. $25 \%$ Refund: A $25 \%$ refund of en ment fees is provided after the exp tion of the $75 \%$ refund period concludes as noted in the term ca dar for each semester.
4. $100 \%$ refund in case of death.

If a student withdraws during the $75 \%$ riod, all of the student activity fee is rendable. There is no refund of the stunt activity fee after this period.
The University refund policy is based tirely upon the official date of the withawal or change of course which would sult in a refund. Refunds beyond the ecified date or percentage cannot be ade for reasons such as employment nflicts, health or medical problems, bving out of town, or other reasons lich are beyond the University's control responsibility.
te: The dates for these refund periods found in the term calendar in the hedule of Classes. The refund period ds earlier than the final deadline for opping a course or withdrawal. Refunds I be processed beginning approximately $o$ and one-half weeks after clases begin d usually should be completed five eks after classes begin.
SIDENCE HALLS: Charges for rooms in iversity residence halls are indicated ow. For information concerning appliion for rooms, see section 4, Student e and Financial Aid. There is a request $m$ for information with the application he back of this Bulletin.
The following policy covers residence I contracts, deposits, and rental fees:
All residence hall contracts are for academic year or for the entire sumr session.
2. Each application for residence hall commodations must be accompanied a deposit of $\$ 50.00$. This deposit shall nain on file with the University throughthe occupancy of housing facilities $d$ is reduced by the amount of any und damages or any other financial obliion due to the University at the time idence hall space is vacated.
3. An initial residence hall reservation uest must be confirmed by a properly otiated contract with deposit.
Students who wish to retain their m and hall priority for subsequent sesters must notify the housing office in ting by July 1 for the fall semester, by cember 1 for the spring semester, and May 1 for the summer sessions.
A housing contract can be cancelled 1 a refund of the $\$ 50.00$ deposit made $y$ if
) The institution is notified a minimum of 14 calendar days prior to the first official day of registration.
the student is prevented from entering the University because of personal medical reasons confirmed in writing by a licensed physician.
Residence hall space is not available or the student is denied admission or readmission to the University.
refund will be made in the case of th.
Refunds of residence hall rent after istration will be prorated on a weekly endar basis only when the student is
forced to withdraw from the residence hall under the following conditions:
(1) Because of personal medical reasons confirmed in writing by a licensed physician.
(2) At the request of the University for other than disciplinary reasons. No refund will be made if withdrawal is required for disciplinary reasons.
Full refund will be made in the case of death. Withdrawals for other reasons will be subject to the same $75 \% / 25 \%$ amounts and time periods as registration fees.
No refund of residence hall rent will be made under any other conditions.
Notice of withdrawal from residence must be made in writing to the Director of Residence Life. Refunds will be computed as of the date such notice is received in the Office of Residence Life and withdrawal is confirmed by a staff member of the hall in which the student resided.

MARRIED HOUSING: The University has 126 apartments for married students located on South Campus approximately one mile from the central part of the campus. These are 70 two-bedroom and 56 one-bedroom apartments. Some apartments are built specifically for paraplegic students. All apartments are furnished with electric stove, refrigerator, carpeting and garbage disposers.

The monthly rental rates are as follows: one bedroom apartment - $\$ 160.00$; two bedroom apartment - $\$ 185.00$. Electrical utilities are paid by tenant.

Application forms may be obtained from the University Housing Office in Room 105, Scates Hall, Main Campus. A $\$ 5.00$ application fee is required when the applisation is submitted. A $\$ 50.00$ deposit is required upon acceptance of assigned apartment.
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 $\$ 5.50$ to $\$ 6.75$ per day.
AIR FORCE ROTC DEPOSIT: A uniform deposit of $\$ 10.00$ and a $\$ 5.00$ activity fee are 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.

| Dormitory | Type Room | Semester | Pre-Summer Session | First Summer Term | Second Summer Term | Extended Summer Term | Nine Week Term |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Browning | Double Single | $\begin{array}{r} \$ 290 \\ 400 \end{array}$ | $\begin{aligned} & 54 \\ & 75 \end{aligned}$ | $\begin{aligned} & 109 \\ & 150 \end{aligned}$ | $\begin{array}{r} 91 \\ 125 \end{array}$ | $\begin{aligned} & 200 \\ & 275 \end{aligned}$ | $\begin{aligned} & 163 \\ & 225 \end{aligned}$ |
| Hayden | Double Single | $\begin{aligned} & 330 \\ & 430 \end{aligned}$ | $\begin{aligned} & 62 \\ & 81 \end{aligned}$ | $\begin{aligned} & 124 \\ & 161 \end{aligned}$ | $\begin{aligned} & 103 \\ & 134 \end{aligned}$ | $\begin{aligned} & 227 \\ & 296 \\ & \hline \end{aligned}$ | $\begin{aligned} & 186 \\ & 242 \end{aligned}$ |
| McCord | Double | 290 | 54 | 109 | 91 | 200 | 163 |
| Mynders | Double Small Single* $\underset{\text { Single }}{\text { Medium }}$ Large Single* Single | 350 <br> 450 <br> 475 <br> 500 <br> 530 <br> i.Private Bat Private Bath | 66 <br> 84 <br> 89 <br> 94 <br> 99 <br>  <br> 94 | $\begin{aligned} & 131 \\ & 169 \\ & 178 \\ & 188 \\ & 199 \end{aligned}$ | $\begin{aligned} & 109 \\ & 141 \\ & 148 \\ & 156 \\ & 166 \end{aligned}$ | $\begin{aligned} & 241 \\ & 309 \\ & 327 \\ & 344 \\ & 364 \end{aligned}$ | $\begin{aligned} & 197 \\ & 253 \\ & 267 \\ & 281 \\ & 298 \end{aligned}$ |
| *Newport | Double | 410 | 77 | 154 | 128 | 282 | 231 |
| ${ }^{*}$ Rawls; | Double Single | $\begin{array}{r} 370 \\ 490 \end{array}$ | $\begin{aligned} & 69 \\ & 92 \end{aligned}$ | $\begin{aligned} & 139 \\ & 184 \end{aligned}$ | $\begin{aligned} & 116 \\ & 153 \\ & \hline \end{aligned}$ | $\begin{aligned} & 254 \\ & 337 \end{aligned}$ | $\begin{aligned} & 208 \\ & 276 \end{aligned}$ |
| *Richardson Towers | Double | 410 | 77 | 154 | 128 | 282 | 231 |
| *Robison | Double Single | $\begin{aligned} & 370 \\ & 490 \end{aligned}$ | $\begin{aligned} & 69 \\ & 92 \\ & \hline \end{aligned}$ | $\begin{aligned} & 139 \\ & 18 \end{aligned}$ | $\begin{aligned} & 116 \\ & 153 \end{aligned}$ | $\begin{aligned} & 254 \\ & 337 \end{aligned}$ | $\begin{aligned} & 208 \\ & 276 \end{aligned}$ |
| Smith | Double Single | $\begin{aligned} & 325 \\ & 430 \end{aligned}$ | $\begin{aligned} & 61 \\ & 81 \end{aligned}$ | $\begin{aligned} & 122 \\ & 161 \end{aligned}$ | $\begin{aligned} & 102 \\ & 134 \end{aligned}$ | $\begin{aligned} & 223 \\ & 296 \end{aligned}$ | $\begin{aligned} & 183 \\ & 242 \end{aligned}$ |
| West | Double Single | $\begin{aligned} & 325 \\ & 430 \end{aligned}$ | $\begin{aligned} & 61 \\ & 81 \end{aligned}$ | $\begin{aligned} & 122 \\ & 161 \end{aligned}$ | $\begin{aligned} & 102 \\ & 134 \end{aligned}$ | $\begin{aligned} & 223 \\ & 296 \end{aligned}$ | $\begin{aligned} & 183 \\ & 242 \end{aligned}$ |

${ }^{*}$ Air Conditioning

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 $\$ 20.00$ 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 PLACEMENT 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 sur-
rendered 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).

RETURNED CHECKS: It is expected that a check given the University, for any reason, will clear the bank on which it is drawn. A $\$ 5.00$ 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

\(\left.$$
\begin{array}{llll} & \begin{array}{l}\text { Per Hour } \\
\text { (Summer } \\
\text { and }\end{array} & \begin{array}{l}\text { Fall and } \\
\text { Spring Seme } \\
\text { Per Semeste }\end{array}
$$ <br>

Uart-Time)\end{array}\right)\)| (Full-Jime) |
| :--- |

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
Application for admission, first application
Automobile Registration, per automobile
Diploma, payable once
Late registration after official
registration period
Transcripts, per copy after first five copies per request
Air Force ROTC activity fee, per year
School and College Ability Test
Residual American College Test
Orientation Services
(Pre-College Counseling)
P.E. locker and towel, per semester

## Deposits:

Air Force ROTC Uniform (refundable less charges for loss or damage)
Dormitory rooms
(refundable less charges, upon
termination of occupancy)
Laboratory breakage
(refundable less charges)
Music locker deposit, per semester per year

## 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 necess


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## STUDENT DEVELOPMENT

The Department of Student Development, a component within the Division of Student Education Services, focuses attention on student goal clarification, im-
plementation, and attainment. Major areas within the department include 1) Center for Student Development, 2) Health Services, 3) Student Aid, 4) Placement. Counselors are available for career planning, academic advising, personal counseling, tutorial assistance, and special groups in leadership and other human relations activities. Specialized services are provided to assist students in resolving difficulties which may impede the learning process. Emphasis is placed on individualized responses to concerns identified during personal interviews.

## The Center For Student Development

The Center for Student Development is a comprehensive counseling and assistance facility providing personal/ psychological, academic, and career resources for students to draw upon as they confront the developmental tasks concomitant with their educational experience. 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.

## Personal/Psychological Counseling

The personal/psychological counseling component provides students with the opportunity to discuss and explore, in confidence, any concerns and feelings that are of importance to them. Staffed by professional psychologists and counselors, 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 interper-
sonal relationships, feelings of Ionelin or inadequacy, family or marriage diffi ties, depression, lack of confidence, inability to concentrate or study, or sim "feeling the need to talk things out" all examples of concerns which are det with through personal counseling. 7 staff is professionally trained and exp enced in working with a wide variety student concerns through individual a group counseling, testing, programs a workshops, and referral to additional st ice centers on and off campus.

## Academic Counseling

All freshmen, transfer, and readmit students without an academic major assigned to an academic counselor. purpose is to provide academic coun ing which will prepare students for enr ment in one of the degree-granting leges once they have chosen an acadel major. The counselor is available to cuss with the student the many acadet programs offered by Memphis State l versity and to acquaint him with the quirements of the various programs.

The academic counseling unit of Center for Student Development provii an atmosphere in which a student freely explore educational and devel: mental goals with the assistance of a $f$ time counselor who can provide inforr tion and referral for faculty assistance, reer counseling, vocational testing, help with any personal problems related academic success and adjustment to University environment.

## Career Counseling

Career counseling at the Center for $\S$ dent Development affords students an portunity to explore career options, obt information relating academic majors career choices, evaluate employment i look information, match education to reers, reinforce decision-making sk and develop realistic career goals. counselors are trained and experiencer working with students who are uncert or confused about selecting among many career options available to the Through testing, counseling, and c fronting the issues, each person is giv the opportunity to make a well-conside choice. For persons ready to face the market, the career counseling unit $F$ vides related workshops and assistar Special career-related programs are av able to individuals and interest groups.

## The Testing Center

The testing center provides testing : vices for university and professic school admissions purposes as well as licensure and certification in a variet professional areas. A wide variety of $t \in$ including the ACT Test, Miller Analo Test, the Graduate Record Exam, the I School Admissions Test, the Drug Ab Counselors Certification Test, the Med College Admissions Test, and the Gra ate School Foreign Language Test others are administered under the pices of the testing center.

## Educational Support Program

 unn Mathematics Building, Room 143 he Educational Support Program proes assistance to students in developing 1 improving the skills necessary for a cessful academic experience. In addito tutorial programs in reading, Engcomposition, mathematics, foreign guage, and study skills, counseling is o available for persons wishing to diss educational and personal concerns. ividual and group consultation as well audio-visual and programmed instrucare available on a walk-in, voluntary is. Moreover, a roster of private tutors specific courses is maintained. Peric workshops in academic survival skills presented in a variety of settings.
## University Health Center

## Location and Hours

he University maintains on the main npus a health center which is located at corner of University and Desoto Ave. s. The University Health Center is n Monday through Friday, 8:00 a.m. to 0 p.m. Additional information about center services may be obtained by ing 454.2288.

## Eligibility for Care

tudents will be given priority for sers; however, all medical services are ilable to faculty and staff members 7 validated identification cards. Except cases of emergency, each visit to the alth Center requires that the individual sent his identification card before tment.
mission for Treatment: Those patients ler 18 years of age must have a Per. sion for Treatment form signed by $r$ parent or legal guardian. Patients er 18 years of age who do not have the hed treatment forms cannot be treated he University Health Center except in es of emergency. Patients who are 18 rs of age or older may sign the permisform themselves. The Permission for atment forms may be obtained at the ter.
lical Record: Prior to treatment in the Ith Center, the patient is required to aplete a short personal medical record. Imedical records of patients are privied communication, and information is creleased to any source, university or erwise, without the written, valid con* of the patient, except when required yaw and/or court order.

## Services

e University Health Center is staffed i) a full time physician during the acaeic year, nurse practitioner, registered uses, medical and $x$-ray technologist, $n$ various administrative auxiliary sup0 personnel. The center's major emnois is on the diagnosis and treatment hort-term, acute, episodic, medical ill. ejes on an outpatient basis. Specialty ifs are provided in gynecology and
dermatology during the Fall and Spring regular 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, devices, medications, and examinations with the services being free in most cases; the determination made on a graduated fee basis. If the patient cannot keep an appointment for one of the specialty clinics, he should call 454-2287 to cancel so that his time may be given to another patient.
Immunizations: Allergens and other series preparations will be administered by the University Health Center personnel when requested by the patient's private physician. The preparations, to be supplied by the patient, must be accompanied by explicit written instructions from his private physician.
Physicals: No routine physicals are performed by the University Health Center.
Equipment Loan: The University Health 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 University Health 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 states 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 University Health 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 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 capability, call the University Health Center (extension 2287), and provide the nurse or physician with the follow. ing 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 Certer 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 from the office of the Assistant Dean of Students, telephone number 454-2298. Because 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 Of. fice, 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 Basic Educational Opportunity Grant Program. All forms may be obtained through the Student Aid Of. fice upon request. The ACT Family Financial Statement is also available in most high school guidance offices.

The preferred application deadline for all applications is April 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 stu-
dent aid programs is available in Student Aid Office. A request form for ditional information is found in the bac the Bulletin with the application blank.

## Scholarships

The University awards several hunc scholarships each year in var amounts from $\$ 50$ to $\$ 2,000$. Most sc arships awarded cover the amount of istration fees, but the stipend is df mined by the student's need for finar assistance. Scholastic achievement, sonal and leadership qualities and $r$ are the factors utilized in evaluating al cants and determining the value of: scholarship offered.

Scholarships are awarded for the demic year and are not available for $s$ mer school. Freshmen applying for sc arships must rank in the top twenty percent of their high school gradua classes. Currently enrolled students $r$ have at least a 2.5 overall grade poin: erage. Scholarships are awarded on ar
mic year basis. Each student wishing olarship consideration must submit an lication each academic year. Informaon special scholarships may be obed from the Student Aid Office.

## State Board of Regents Scholarship

 he Board of Regents Scholarship is for nessee residents with a 2.8 G.P.A. or her. Freshmen applying for the schol hip must rank in the upper quartile of graduating class. The scholarship ers mandatory fees, and there is a vice or work requirement for recipi
## Alumni Valedictorian Scholarship

 he Memphis State University Alumni ociation provides a Valedictorian olarship for the top scholar from each Tennessee's accredited or state apved high schools and the State's ten lic community colleges. The qualificas for this program are that the recipimust rank number one in their class meet the admission requirements of University. The award, in an amount al to in-state registration fees, is for year and is based solely on academic iding.or applications and further information his program, qualified students should tact the Student Aid Office.

## Cecil C. Humphreys Presidential Scholars Program

welve $\$ 8,000$ four-year scholarships awarded annually to entering fresh) of the highest academic attainment out regard to financial need. Scholaros are selected on the basis of the folng criteria:

An ACT score of 28 or higher, or the corre. sponding SAT score.

## High school transcript

Excellence of performance in an area of interest.
Quantity and quality of extra curricular and extra-mural activities
Evidence of sound character, work habits, and attitude
he scholarship program is funded by tributions to the Memphis State Unisity Annual Fund from Alumni and er friends and by Athletic Department enues. The scholarship program is ned for Dr. Cecil C. Humphreys, Presit Emeritus of Memphis State Univer-

## Special Scholarships

ED FORCES COMMUNICATIONS AND ELECTRONICS ASarship (AFCEA) SCHOLARSHIP: AFCEA awards one $\$ 500$ arship annually to a sophomore AFROTC cadet for under- ate college or university study in a course relating to AF. sphere of interest (Electrical, Electronics or CommunicaEngineering; or technical photography). The winning
End enceives two checks for $\$ 500$ each - one for use in the
reshal receives two checks for $\$ 500$ each - one for use in the
year, one for use in the senior year. Inquiries should be ed to the Department of Aerospace Studies.
TC COLLEGE SCHOLARSHIP PROGRAM: Four year scholare available to any high school senior who is interested
AFROTC program. Most of these scholarships are e AFROTC program. Most of these scholarships are
led to students majoring in the scientific, mathematics ngineering disciplines. A small number of four year schol is iss available in Business Administration. Eligible
nts apply to Air Force ROTC (SDS) Maxwell AFB, AL not later than January 15 of their senior year in high All university students may apply for the two and three cholarships. These applications are handled through the
ment of Aerospace Studies and must be submitted by of the preceding academic year

ALPHA DELTA KAPPA, ALPHA CHAPTER, annualiy awards a $\$ 200$ scholarship to a student in the junior or senior year who is a resident of Shelby County and is preparing to enter the field of teaching.
ALPHA DELTA KAPPA (LAMBDA CHAPTER) SCHOLARSHIP IS presented to a junior or senior who is a resident of West Ten nessee, and has demonstrated high academic achıevement and plans to pursue the profession of teaching.
AMERICAN NEWSPAPER PUBLISHERS ASSOCIATION FOUN DATION SCHOLARSHIP of $\$ 1,000$ is awarded annually to a stu dent of journalism who shows promise in the field.
the american society of women accountants mem phis Chapter, annually awards a full resident maintenance fee scholarship based on scholarship and need to a junior or senior majoring in accountancy
THE ASSOCIATED GENERAL CONTRACTORS OF MEMPHIS IN. DUSTRY ADVANCED FUND SCHOLARSHIP, established in 1973, provides a $\$ 500$ grant with preference given to a student majoring in Construction Engineering Technology at MSU.
THE ASSOCIATED GENERAL CONTRACTORS OF MIDDLE TEN NESSEE CONSTRUCTION INDUSTRY ADVANCEMENT FUND SCHOLARSHIP was established in 1974 The $\$ 500$ grant is made to a student from the Mıddle Tennessee area majoring in Construction Engineering Technology and planning a career in that profession.
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.
COTERIE CLUB DRAMA SCHOLARSHIP $\$ 200$ is awarded annu ally to the outstanding woman undergraduate theatre major
MSU COLLEGIATE DECA SCHOLARSHIP is presented annually to outstanding Memphis area high school distributive education students who plan to attend Memphis State University and ma jor in distributive education
DOWNS' PARENTS SCHOLARSHIP AWARD is annually pre sented to a junior student selected by the Department of Spe cial Education as the person who best meets the qualites of leadership, service and scholarship.
COLLEGE OF EDUCATION ALUMNI CHAPTER SCHOLARSHIP IS presented to a full-time junior or senior who demonstrates out standing scholastic ability, financial need, and the intention to pursue a degree from the College of Education. The scholarship is supported by gifts from COE alumni and friends.
THE ELEANOR B. O'NEILL SCHOLARSHIP FUND is provided by the T.W. Briggs Welcome Wagon Foundation. Two scholarships at $\$ 500$ each are awarded annually to students preparing for careers in advertising, public relations, or ןournalism. In addi careers in advertising, public relations, or journalism. In addition to the current scholarships, the Foundation is in the pro-
cess of endowing two scholarships to assist students in these cess of endo
FINANCIAL EXECUTIVES INSTITUTE SCHOLARSHIP of $\$ 400$ IS awarded annually to a second semester junior in The College o Business Administration based on ability, interest in controller ship and or financial management.
ELBA GANDY MEMORIAL MUSIC SCHOLARSHIP of $\$ 500$ is awarded to an outstanding music student by Ellen Davies Rogers in honor of Elba Gandy.
JAN GARDNER \& ASSOCIATES INC. ADVERTISING SCHOLAR SHIP of $\$ 500$ is awarded annually to a deserving journalism student planning a career in advertising or related field.
THE GENERAL UNIVERSITY SCHOLARSHIP FUND provides scholarships varying in amount and duration to outstanding high school graduates.
THE C.M. GOOCH SCHOLARSHIP FUND: This fund was established from proceeds of the estate of the late Mr. C.M. Gooch The purpose of this fund is to provide grants to students who without such assistance would not be able to attend college. Without maximum a student may expect to recelve in a calendar year is $\$ 300$. The student must be in good academic standing year is $\$ 300$. The student must be in good academic standing
and must show need for assistance as determined through ap. and must show need for assistance as determ
THE MEMPHIS STATE UNIVERSITY HAIR SCHOLARSHIP FUND was established in perpetuity by the authors of the Broadway musical HAIR in honor of the Memphis State University Theatre production of the show in 1970. Scholarships are awarded an nually on the basis of financial need and promising talent to majors in Theatre and Communication Arts. Application should be made to the chairman of the Department of Theatre and Communication Arts.
THE A. ARTHUR HALLE MEMORIAL SCHOLARSHIP FUND an nually provides two scholarships of $\$ 300$ each to outstanding high school graduates for the freshman year only
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 protessional attitude
ISSAC HAYES EVENING OF SOUL SCHOLARSHIPS are awarded annually to students majoring in theatre and communication arts on the basis of financial need and demonstrated interest in black theatre.
WILLIAM RANDOLPH HEARST FOUNDATION SCHOLARSHIP of $\$ 250$ is awarded annually to an upperclassman majoring in journalism who intends to enter newspaper journalism
THE HERFF ENGINEERING SCHOLARSHIPS provided annually through the Herbert Hertf Estate are available to beginning and currently enrolled students who have a demonstrated aptitude for engineering. Applications for these scholarships are submit ted through the Herff College of Engineering
HOME BUILDERS ASSOCIATION OF MEMPHIS - LADIES AUX. ILIARY OF MEMPHIS provides two scholarships at $\$ 500$ each per year. The recipients are selected by the Department of Engineering Technology with approval of such by Ladies Auxiliary. Applicants must be technology students in need.
MEMPHIS HOME FURNISHING MERCHANDISING ASSOCIA. TION SCHOLARSHIP is awarded annually to a junior or senior who has demonstrated high academic achievement and plans a career in the field

THE W.F. JAMESON MEMORIAL SCHOLARSHIP is awarded an nually to a freshman student in the Herff College of Engineer-
ing. The recipient of this scholarship must intend to pursue a ing. The recipient of this scholarship must intend to pursue a career in construction engineering.
THE JOSEPHINE CIRCLE SCHOLARSHIP in the amount of regis tration fees, is awarded annually. The award is made on the ba sis of scholastic record, personality, future plans of the appli cant, and need
KIWANIS CLUB OF EAST MEMPHIS MEMORIAL SCHOLARSHIP is presented to a junior or senior majoring in special education and demonstrating high achievement and need. Must be a resi
THE ETHEL LEWIS SCHOLARSHIP is an award sponsored by the University Career Women of Memphis State University. This award in the amount of the annual registration fee is available to a freshman or sophomore student majoring in office administration or preparing for a career as a business teacher
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 senıor majoring in fournalism and seeking a career in some phase of that profession. Both financial ne
ship are factors in the selection of the recipient.
the james e. mcgehee mortgage company scholar. SHIP 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 MIKE McGEE MEMORIAL SCHOLARSHIP FUND main tained by the Memphis Press Club provides one or more schol arships of $\$ 250$ each year. These scholarships are awarded to journalism majors of any class with a minımum grade average
of 2.7 upon approval of the Memphis Press Club scholarship of 2.7 upon approval of the Memphis Press Club scholarship committee. App
THE MEMPHIS ADVERTISING FEDERATION provides an annual undergraduate assistantship for a student majoring in advertising either in the department of fournalism or the department of marketing. This assistantship pays a monthly stipend of $\$ 200$ and the recipient is assigned to work with a protessor in the department which makes the award. Applications are submitted to the respective departments.
COMMUNITY COLLEGE PRESIDENTIAL SCHOLARSHIP: A scholarship in an amount equal to instate registration fees awarded to the valedictorian of each of Tennessee's ten community colleges. This scholarship is renewable as long as the recipient maintains a 2.8 cumulative grade point average.
STUDENT GOVERNMENT ASSOCIATION SCHOLARSHIP: A scholarship equal to in state registration fees is given to ten students who are planning to attend Memphis State University full time. Incoming freshmen must have made a 21 on the ACT dents must maintain a 2.75 cumulative grade point average. This scholarship has a 30 hour work requirement per semester and is non renewable
BILLY M. JONES SCHOLARSHIP: This fund was established to honor the President of Memphis State University, Dr. Billy M. Jones. A $\$ 500$ scholarship awarded to an undergraduate student studying marketing, commercial arts, any discipline within the College of Communication and Fine Arts, any proposed
course in institutional development, or area relating to the Division of University Community Relations.
THE MEMPHIS AMATEUR BOXING ASSOCIATION SCHOLARSHIP FUND provides two scholarships annually in the amount of $\$ 500$ each. Priority is given to tulitime 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.
MEMPHIS AREA BROADCASTERS SCHOLARSHIP is awarded annually to an outstanding undergraduate in the area of broadcasting.
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 SCHOLARSHIP FUND provides one scholarship annually in the amount of $\$ 500$ to a junior or senior student majoring in Office Administration or Secretarial Sciences and who intends to enter the Legal Secretary Profession. This scholarship is awarded on the basis of scholastic ability and financial need
THE MEMPHIS STATE UNIVERSITY FACULTY.STAFF SCHOL ARSHIP FUND was established in 1971 as an endowment pro gram. Several scholarships are awarded annually on the basis of financial need and scholastic ability. The Fund is increased each year by gifts from MSU faculty and staff.
QUOTA CLUB SCHOLARSHIP is presented to a student training to be a teacher of the hearing impaired or deat
THE MEMPHIS STATE UNIVERSITY ANNUAL FUND each year provides a sum of money to be awarded to students with outstanding academic records. These scholarships vary in by the student's need for assistance and academic potential. The fund is supported by gifts from alumni and friends of the University.
THE BILLY J. MURPHY SCHOLARSHIP FUND was established in 1974 to honor MSU Athletic Director Billy Murphy for his long service to the school. The $\$ 700$ scholarship award is made to a Memphis area student who has demonstrated financial need and shows scholastic ability.
HAROLD W. PERRY SCHOLARSHIP AWARD is presented annu ally to a student majoring in special education and rehabilita tion who, in training as a teacher to work with the multihandicapped, demonstrates high scholastic achievement, experience and a willingness to work with the handicapped
MEMPHIS ROTARY PAUL HICKS MEMORIAL SCHOLARSHIP IS presented to full time graduate student majoring in vocational rehabilitation or to a graduate employed in the field

THE SCRIPPS.HOWARD FOUNDATION - EDWARD J. MEEMAN SCHOLARSHIP FUND provides two scholarships annually in the amount of $\$ 500$ each to junior or senior journalism ma. jors who demonstrate outstanding academic promise and finan. cial need. Students must be pursuing an academic curriculum which would qualify them for a journalism career in the broad. casting or newspaper field.
NATIONAL SECRETARIES ASSOCIATION, Memphis Chapter, annually awards a full scholarship, plus books, valued at $\$ 700$ to a graduating high school senior based on scholarship and a desire to be a secretary. This award is renewable each year.
THE SERTOMA CLUB - ROBERT TALLEY JOURNALISM SCHOLARSHIP was established to honor a long time member of the editorial staff of the Memphis Commercial Appeal. Each year the Sertoma Club of Memphis awards a scholarship valued up to $\$ 350$ io an advanced journalism student who has done outstanding work at Memphis State University. Applications should be submitted to the dean of the College of Communication and Fine Arts.
KATHERINE B. SEVEDGE SCHOLARSHIP is presented to a senior who is a degree candidate in elementary education, a resident of Shelby County, has demonstrated high academic achievement and need, and plans to pursue the profession of teaching
THE SOCIAL WORK DIVISION SCHOLARSHIP FUND is main. tained by the Opportunity Foundation Corporation and the State of Tennessee. Several scholarships in the amount of $\$ 500$ each are awarded annually to full-time juniors or sentors majoring in Social Work. Recipients are selected jointly by the faculty in the Division of Social Work and the Student Aid Office. Awards are based on scholastic standing and financial need.
WILLIAM B. TANNER SCHOLARSHIP IN COMMERCIAL MUSIC of $\$ 500$ each is presented annually to two outstanding students in commercial music artistry, business, or technology
THE TENNESSEE ASSOCIATION OF BROADCASTERS SCHOLARSHIP FUND 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.
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 roadbuiiding. Selection is made by the Tennessee Road Builders Association.
THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS annually awards a number of scholarships of $\$ 500$ each to accounting majors with good academic averages. These scholarships are awarded on a competitive basis in relation to scholarship, extra curricular activity, character and financial need. Applications are submitted through the Department of Accountancy.
THE MEMPHIS CHAPTER OF THE TENNESSEE SOCIETY OF PROFESSIONAL ENGINEERS AND THE MEMPHIS STATE UNIVERSITY FOUNDATION jointly sponsor two scholarships annu. ally for a junior and senior year engineering student. Applicafions for these scholarships are submitted through the Herff College of Engineering.
THEATRE AND COMMUNICATION ARTS ALUMNI SCHOLAR SHIPS are annually awarded to majors in theatre and communication arts on the basis of financial need and demonstrated competence in communication and/or theatre arts.
WARREN BROTHERS SCHOLARSHIP provides a $\$ 425$ scholarship annually to one junior or senior student majoring in Con struction Technology with priority consideration being given to students taking a course(s) in bituminous products. Selection is based on needs as well as academic ability. Application can be made through the Department of Engineering Technology with final selection being made by Warren Brothers Company.
THE HATTIE G. WATKINS SCHOLARSHIP FUND annually provides five scholarships at $\$ 500$ each to students on the basis of scholastic standing and financial need. These scholarships are awarded to students who are employed part-time to help finance educational expenses.
THE HORACE H. WILLIS MEMORIAL SCHOLARSHIP of $\$ 250$ annually is awarded from time to time to an incoming freshman on the basis of need for financial assistance and evidence of ac. ademic promise.
THE WHIRLPOOL MANUFACTURING TECHNOLOGY SCHOLARSHIP FUND provides two $\$ 350$ scholarships annually to junior and senior students majoring in Engineering Technology with interest in metal products manufacturing.
THE WOMAN'S ASSOCIATION JUNIOR SCHOLARSHIP AWARD is annually presented to the woman member of the junior class who has attained the highest scholastic average.
MYRLEE WRIGHT SCHOLARSHIP AWARD is presented to a stu. dent who is seeking a degree in elementary education, a resident of McNairy County area, and plans to pursue the profession of teaching.

## 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. Stu-
dents applying for Educational Grants must demonstrate academic or creative promise; the stipend may range from $\$ 200$ to $\$ 1000$ based on the student's es. tablished need.

## Law Enforcement Education Program

The Law Enforcement Education Pro gram, 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 three 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.

## Nursing Student Loan and Scholarship Program

The Nursing Student Loan and Scholarship Program is designed to increase the opportunities for students seeking careers in nursing by providing scholarship assistance and long-term, low interest loans. These programs are available to students who need assistance to pursue a course of study leading to an associate or bachelor's degree in Nursing.

## 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 $\$ 200$ administered by the Memphis branch of the FUND OF $\$ 200$ administered by the Memphis branch of the AAUW is available to women students recommended by the University.
THE GENERAL EVERETT R. COOK ARNOLD AIR SOCIETY LOAN FUND was established to provide financial assistance in the form of short-term loans for students enrolled in the Profes. sional Officer Course of the Air Force Reserve Officers Training
Corps.
THE GENERAL UNIVERSITY LOAN FUND provides short term, low interest loans up to $\$ 200$ for those students in emergency situations.
THE KAPPA LAMBDA SIGMA AND PHI LAMBDA DELTA LOAN FUND of \$206 was presented by the Kappa Lambda Sigma sorority and the Phi Lambda Delta fraternity in memory of thos members of Phi Lambda Delta who died in World War II.
THE DELTA OMICRON CHAPTER OF PHI DELTA KAPPA sponsors a loan fund of $\$ 500$, available in $\$ 125$ loans to full-time undergraduate seniors and full time graduate students who are planning to be teachers
TENNESSEE ASSOCIATION OF PUBLIC ACCOUNTANTS LOAN
FUND was established to enable a needy junior or senior student in the Department of Accountancy to remain in the Univer. sity. 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.
THE ZONTA CLUB OF MEMPHIS LOAN FUND of $\$ 250$ is availa ble to eligible junior and senior women. Applicants' names are submitted to a committee of the Zonta Club for approval and selection.

University Revolving Student Loan Fix
The University Revolving Loan Fu established for the purpose of prov low-interest, long-term educational to assist students with college relate e penses. This fund consists of donatio individuals and organizations interest providing a means whereby studen need of financial assistance can st such assistance.

## The Tennessee Student Assistanc Award Program

Students who are residents of the of Tennessee may apply for a Tenne e Student Assistance Award. These gin are awarded to students for the amou registration fees and never to ex $\$ 1000$. If a student's need is less thai $h$ cost of registration, as determined b ing the American College Testing Prow Family Financial Statement, then the dent may expect to receive no more his actual established need. In ordi apply, a student must submit a fina statement to the following:

## Tennessee Student Assistance Corporation

B-3 Capitol Towers, Suite 9
Nashville, Tennessee 37219
The ACT Code number for the Tenne Student Assistance Corporation is 4 Applications for this grant may be tained through the Student Aid Offic by writing to the above address. Dete nation as to grant recipients is mad the Agency in Nashville. For more ii mation, write to the Tennessee Stu Assistance Corporation.

## Basic Educational Opportunity Gran

The Basic Educational Opportı Grant (BEOG) Program was authorized der the Education Amendments of 1 ! Other aid may be given in addition to Basic Grant, as this program is inter to be the "floor" of a student's final aid package.

The maximum yearly grant eligibilit each student is approximately $\$ 1,600$ the amount the family and student ca expected to contribute toward educati expenses. Other limitations on payr are related to the costs of attendanc the institution where the student enr The Basic Grant cannot exceed one the educational costs. All degree see undergraduate students are eligible to ply for the Basic Grant Program.

## Other Loan Plans

There are several reliable plans ur which parents may make loans to help fray the cost of college expenses. Th plans provide loans at nominal rates o. terest and are repayable in monthly stallments. One such plan is Tuition F Inc. Parents interested in securing a tional information about college finani of this type can obtain more informa by writing to the following:

The Tuition Plan, Inc.
Concord
New Hampshire 03301

e Tennessee Educational Loan Corporan , in cooperation with the federal govmment, guarantees 100 per cent of ins made by Tennessee banks or other ding institutions to students from Tenssee who need to borrow money for ir college education. This program enas lending institutions to provide longm , low interest loans to students with a garantee of receiving payment. In most es the federal government will pay the lerest on these loans while the student is olled in college, and repayment does 4 begin until the borrower leaves col€e. Applications may be obtained from tricipating lending institutions and will furnished by the University upon repest. Similar programs known as Guareed Student Loans or Federally Insured dent Loans are available for noneidents through their home states. The dent Aid Office maintains a listing of all site agencies.

## Student Employment

here are many employment opportuniavailable through the University. The versity operates two programs of stu-
dent employment on campus: the College Work-Study Program and the Regular 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, BEOG and show financial need. The Tennessee Department of Employment Security maintains an office on campus for assisting students with off-campus employment.

## University Placement

Placement services are provided to assist graduating seniors and alumni communicate with prospective employers for full-time, permanent employment. Services include personal data files, oncampus 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, the Student Handbook, Religious Affairs, Volunteer Services, the University Center, University Programs, Campus Recreation and Intramurals, Cheerleaders and Pom-Pom Squad. Information on these and other cocurricular 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, through authority delegated to it by the University, represents student opinion in
working with other University components. Elected annually, the SGA is composed of elected and appointed officers, a senate and a judiciary.

## Publications

Students write and edit The Helmsman, semi-weekly newspaper; 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 area of Student Life.

## 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 Episcopal Student Organization, Campus Crusade for Christ, Christian Science Organization, Jewish Student Union, Latter Day Saints, Maranatha Christian Fellowship, Muslim Student Association, Navigators, Newman Foundation, United Students for Christ, Wesley Foundation, and Westminster Fellowship.

## Art and Music

The Department of Art sponsors lectures, films, and shows as part of its yearly program. Galleries are located in Jones Hall and Brister Library.

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.

## Speech and Drama

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. Programs in radio, television, and film are offered by the area of Rhetoric and Communication.

## 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

Seventeen 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, Phi Kappa Psi, Phi Kappa Theta, 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 Pan-Hellenic 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 (901) 454-2093.

## 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 454-2035.

## Campus Recreation Intramurals

The Department of Campus Recreation and Intramurals provides students, faculty and staff members the opportunity to participate in a wide variety of leisure activities. The department administers a competitive intramural sports program, supervised informal recreation program, a special events recreation program, a sports club program, equipment rental/ loan, and a variety of leisure course/ clinics.

Intramural activities include softball, tenris, bowling, handball, football, bicy-
cling, racquetball, badminton, billiari turkey trot, innertube water polo, volli ball, wrestling, basketball, swimming, st cer, track and horseshoes.

The facilities of both the Physical Ec cation-Recreation Building and the Fil House are available for supervised inf mal recreation during posted hou These facilities include five gymnasiun 15 racquetball-handball courts, 31 ten courts (14 lighted), two weight roon olympic-sized indoor and outdoor po and diving wells, archery ranges, outd track and sports fields, combatives roo steam room, sauna room, and locl rooms. Additional assistance is provic through the loan of recreation equipme the scheduling of space for practices a events, the sale of user fee tickets, 1 reservation of tennis and racquetb handball courts, the rental of campi equipment, and the assignment of $f$. ulty/staff lockers.

The Club Sports Programs currently clude handball, racquetball, socc weightlifting, judo karate, softball and leyball. The sports clubs are bound gether by common interests. The clus may be formed for the purpose of rect ing instruction and/or competition. T program is designed to serve individ and/or group interests in various spo; and is student-oriented in every respe Active student involvement is essential a club to be successful. Each club sele a faculty advisor, draws up a constitut based on the club's philosophy, elects $c$ cers and sets up a training schedule a programs subject to departmental proval. Students interested in forming sports club may do so by contacting: Coordinator of Club Sports (Physical E cation-Recreation Building, 454-2803).

## Honor, Recognition, and Professional Organizations

Memphis State University is proud have many national honor and recognit societies devoted to encouraging $h$ standards of scholarship, leadership, i professional competence. These societi through their programs and professio activities, provide an additional aspeci student development which would not dinarily be obtained. Detailed informat concerning these societies, including quirements for membership, purpos and specific activities, can be found in 1 Student Handbook, from sponsoring I versity departments and in the Office Student Organizations, 454-2093.

## Honors and Awards

## THE COLLEGE OF ARTS AND SCIENCES

THE BETA BETA BETA AWARD is annually presented ic graduating senıor and member of the Society who gradu with the highest grade point average in brology.
THE AMERICAN INSTITUTE OF CHEMISTRY AWARD is sented to the graduating chemistry major who best del strates leadership, ability, character and scholastic ability.

## : DEPARTMENT OF ENGLISH otters several a wards

The Distinguished Scholarship Award presented each year to the English major whose work demonstrates an unusually high order of academic excellence.
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.
Freshman Writing Awards: Presented for creative ex cellence shown by freshman writers of essays, po etry, and fiction.

NCH GOVERNMENT ASSISTANTSHIPS: The French Govern. it through the French Embassy in The United States, on the ommendation of the French Section of the Department of ign Languages, awards each year one or more assistant-
is France for the teaching of English in secondary ools.
'ARTMENT OF GEOGRAPHY presents each year the Paul H. o Award to the outstanding senior geography major
DEPARTMENT OF HISTORY annually presents the Tennes Historical Commission Award to that senior student of his judged by the faculty to be the outstanding history major. DEPARTMENT OF PHILOSOPHY OUTSTANDING STUDENT ARD is presented to that student of philosophy chosen on basis of high scholastic achievement, papers written, and ormance in senior honors seminars
DEPARTMENT OF POLITICAL SCIENCE presents the Out ding Student Award each year to the graduating senior ma 19 in political science who has compiled the best record of jemic achievement in the discipline
DEPARTMENT OF PSYCHOLOGY sponsors the Undergrad Research Festival Awards based on fine papers, each re ing on a research project originated and conducted by an ergraduate student in psychology
DEPARTMENT OF SOCIOLOGY annually presents The Out ding Student Award to the senior student judged to be the tanding sociology major. Also, the DIVISION OF SOCIAL ak presents the Graduate with Distinction Award to the luate who has been selected for dedication, achievement, potential for professional service.
HA EPSILON DELTA, pre-medicine and allied health profes shonor society, annually presents the Student of the Yea rd to the member who has demonstrated outstanding lead ip, loyalty and responsibility.
BETA PHI SCIENCE AWARDS: The student who has at ed the highest academic average during his four years o $y$ in each of the following disciplines: Biology. Chemistry, ogy, Mathematical Sciences, Physics, and Psychology is ored by having his name inscribed on a plaque.

## THE COLLEGE OF BUSINESS ADMINISTRATION

TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUN. TS AWARD, Memphis Chapter, is presented annually to the uating student who has the highest overall scholastic aver among all accountancy majors.
MEMPHIS CHAPTER OF THE SOCIETY OF CHARTERED PERTY CASUALTY UNDERWRITERS annually awards k and a plaque to the outstanding student in the field of in nce.
IETY FOR ADVANCEMENT OF MANAGEMENT SCHOLAR is annually awarded to that member of SAM who has ed the society in an exemplary manner and demonstrated ership in the field of management
NATIONAL BUSINESS EDUCATION ASSOCIATION annually ds a certificate of merit, a one-year subscription to the E.A. Forum magazine, and a one-year membership card in Association to the outstanding graduating senior who has red in the field of business education.
GAMMA NU, professional sorority in business, each year ents a scholarship key to the woman business graduate has maintained the highest
of Business Administration
TA SIGMA PI, international business fraternity, annually ds a scholarship key to the man in The College of Busines inistration graduating with the highest academic average
isiness. siness

## the college of communication AND FINE ARTS

VS ACADEMIC ACHIEVEMENT AWARD is avallable to a ent majoring in a discipline withnn the College of Communi $n$ and Fine Arts. It recognizes the graduating student with
ighest grade point average ighest grade point average.
r'S CREATIVE ACHIEVEMENT AWARD is based on out ling creative activity in the areas encompassed by the Col of Communication and Fine Arts.
IA DELTA CHI CITATION, Memphis Chapter, annually ents a certificate of achievement to the student chosen as anding in the field of journalism
ETY FOR COLLEGIATE JOURNALISTS annually awards the il of Merit for outstanding achievernent on campus publi

ETY OF PROFESSIONAL JOURNALISTS, SIGMA DELTA MARK OF EXCELLENCE AWARDS, Arkansas, Louisiana, awards tor Best TV Broadcasting, Best Editorial Cartoon,
and Feature Article, and Best Photography Feature.
ALPHA IOTA COLLEGE HONOR AWARD annually hts an award band on musicianship, scholarship, and al contribution to the Collegiate Chapter

SIGMA ALPHA IOTA HONOR CERTIFICATE is presented annu ally to the music major graduating with the highest academic verage.
PAUL EAHEART MEMPHIS WOODWIND QUINTET SCHOLAR SHIP is presented in honor of Paul Eaheart for excellence in wind pertormance
NAOMI C. HAIMSOHN AWARD IN CLASSICAL MUSIC COMPOSITION is presented to a student in composition for excellence in composition. The scholarship is made available 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 ubrani, is presented for performance ability, general scholarship, service to the Music Department, and potential in the pro ession.
SMIT COMPOSITION AWARD is presented in memory of Profes sor 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 ma joring in distributive education who has made the most out standing contribution to the Memphis State Chapter
ELEANOR MAE FERGUSON AWARD is presented each year to the outstanding junior or senior woman physical education ma jor who displays strong leadership, outstanding character, high scholarship and an active role in departmental and campus ac tivities.
DEPARTMENT OF FOUNDATIONS OF EDUCATION OUTSTAND. ING GRADUATE STUDENT AWARD is annually presented to the
most outstanding student based on scholarship, accomplished most outstanding student based on scholarship, accomplished or plan ned research, teaching
volvement, 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 campu's activities.
OUTSTANDING STUDENT IN RECREATION AND PARKS AWARD is presented in recognition of meritorious scholarship, leadership, and service to the University, the community, and the protession.
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 tor 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, Senior Academic Achievement Award is presented to the out standing senior enrolied in The College of Education.
MEMPHIS EDUCATION ASSOCIATION AWARD is presented each year to the graduating senior who, having graduated from the Memphis City Schools System and completed all college level work in a teacher education program at the University, has attained the highest grade point average of the students in this category.
HEBER E. RUMBLE, OUTSTANDING STUDENT TEACHER AWARD is presented each year to the student whose perfor mance 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, leadership, 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 Engineering 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 pre sented 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 special project has been judged outstand ing by the Faculty Council of University College

## DEPARTMENT OF AEROSPACE STUDIES

LEGION OF VALOR BRONZE CROSS OF ACHIEVEMENT recog nizes 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 AF ROTC cadet and performance in the Flying Instruction Pro gram.
THE PRESIDENT'S AWARD IS PRESENTED annually to the MSU reshman or Sophomore AFROTC cadet who has demonstrated outstanding attributes of leadership and high moral character Selection is ma
ANGEL OF THE YEAR AWARD is presented to the member of Anget 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 cam pus and the community

## SPECIAL AWARDS

MARIA LEONARD SCHOLARSHIP AWARD is presented annually by Alpha Lambda Delta, national scholastic honor society, to the senior member of the society with the highest 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 par ticipation in activities.
PHI KAPPA PHI SCHOLARSHIP AWARD is presented annually to a member of the society who graduates with the highest aca demic 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 previous fall or spring semester who attained the highest grade
point average; and, to the fraternity member with the highest 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 $\$ 200$ schol arships 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 attained the highest average for the semester.
WOMEN'S INTERCOLLEGIATE ATHLETICS SCHOLAR AWARD is presented annually to the woman athlete who has maintained the highest grade point average while at the University.
THE ELMA ROANE OUTSTANDING WOMAN ATHLETE AWARD is presented to the junior or senior woman athlete who best ex emplifies the following qualities: drive, enthusiasm, determination, concern for others, the love for athletics, maturity, involve ment in campus activities, and self-discipline 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 Out standing 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 senor 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.

## Housing Policy

Students living in the residence halls must be registered as full-time students unless they have special permission from the Director of Residence Life. Married students must have permission granted by the Director of Residence Life to live in the residence halls. If a resident ceases to
attend -lasses for any reason except illness, he will be asked to withdraw from the residence halls and the University. If a student chooses to withdraw from the University, he must vacate his residence hall accommodation immediately upon completion of the withdrawal procedure. It is the prerogative of the Director of Residence Life to refuse a room assignment to any applicant or to terminate the occupancy of any resident when it is felt that there is justifiable cause.

## OFFICE OF STUDENT RELATIONS

## University Center, Room 106

The Office of Student Relations was established in 1977 within the Division of Student Educational Services to provide services to prospective students, currently enrolled students, high school guidance counselors, and other individuals interested in Memphis State University. The Student Relations staff visits high schools and two-year colleges within the MidSouth area, distributes various materials which are representative of the University, provides campus tours for prospective students, and represents the University at various civic and social functions.

## HANDICAPPED STUDENTS 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:

- prenrollment planning and orientation
- preferential scheduling and registration
- coordination of modified housing facilities
- attendant referral
- arranging readers, tutors, notetak ers, 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 TY (901) 454-2880.


## 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 sticker, 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 surrendered 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 issue the individual student and must not loaned to another person for any reasor

## Automobiles on Campus

Each person who expects to oper and park any motor vehicle on the caml of Memphis State University must regis it in the Security Office and receive an c cial permit. Permits are valid from $S$ tember through August.

Limited parking space necessita close regulation of traffic. Each studen responsible for acquainting himself $v$ the campus traffic and parking regi tions, copies of which are available in Security Office.

## Bookstore

The University Bookstore, located in University Center, is owned and opera by the University for the convenience its students, faculty, staff, and th guests. In addition to textbooks and s plies required or recommended for ev course in the University, the Books also stocks clothing, cosmetics, notic physical education uniforms, station rental typewriters, and gift items; it is only source for purchase of the offia Memphis State University class ring.

## Post Office

The University Post Office, located the first floor of Jones Hall, has post of boxes available for rent by students faculty. Students living in University he ing have post office boxes located in th facilities, charges for which are inclu in the residence hall rent. Student should be addressed to the proper pos fice box number, Memphis State Uni sity, Memphis, Tennessee 38152.

## National Alumni Associatio

The Memphis State University Natii Alumni Association maintains active tact with former students for the mu benefit of alumni and the University new graduates are offered a complin tary one-year membership, after wl they may become regular dues pa members of the National Alumni Assc tion.

The Association is organized natior as well as locally. It is governed by a thi three member Board of Directors ele by the general alumni members Alumni chapters are based on Metro tan area, geographical area and specia terest constituent groups.

The Alumni Association annually s sors several undergraduate scholarst These include Cecil C. Humphreys $P$ dential Scholarships, Alumni Fresh Scholarships, Alumni Honors Sch ships and Valedictorian Scholarships. National Alumni Association coordir all university events involving alu Alumni publications include various c ter newsletters as well as The Merr State Alumni Review, the quarterly alt magazine mailed to members of the tional Alumni Association. In additioi alumni receive The Columns Newspaf

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## ORIENTATION, ADVISING AND REGISTRATION

The academic year begins in late August or early September and covers a period of forty-eight weeks divided into two semesters and a summer session. Each semester is approximately eighteen weeks in length. There is a Summer Session comprised of three-week, five to six-week, nine-week, and extended terms.
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 reg. ulations, 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 clas they make a commitment to and assum responsibility for their academic succe They are expected, therefore, to att classes promptly and regularly, to par pate appropriately in these classes, seek out all the help which the Univer makes available to them, to complete course requirements, and to perform the best of their abilities.

The importance of prompt and regi class attendance cannot be overemp sized. Although class attendance as sth is used in computing grades only un the conditions stated in the following pal graph, students must understand 1 their academic success will be determis by the way they perform on all measur instruments - tests, daily quizzes, cl participation, in-class essays, class ports, etc. - and that failure to atte and participate in class (or to meet sim responsibilities in laboratories, intern p grams, and the like) will undoubtedly fect that performance. Absence from cl is not a valid excuse for failure to cc plete assignments or for tardiness in ct pleting them; permission to make up signments or to turn them in late can given only by the teacher of the class un specific request; students should not sume that such permission is granted $i$ tinely.

Class attendance as such is not user computing grades except in those cour for which teachers request specific : emptions. Such special attendance $F$ cies are valid only (1) if the departm chairman annually approves them in w ing prior to the first class meeting wit copy of that approval forwarded for in mation to the dean and (2) if a full sti ment of the policy is presented to all : dents present at the first and sea meetings of the class. In the case courses which have multiple sections : multiple teachers, the chairman's proval permits all teachers to use class tendance in computing grades. Lists of emptions are kept in the dean's office.

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

## Adding and Dropping Courses

After the official registration perioc over, the student may make adjustme in his schedule through the process adding and/or dropping courses. Cour. may be added only during the first days of classes (three days in the six-w summer term and four days during the tended term). Courses dropped du! this same period will not be shown on student's permanent record. Cour dropped after the period to add clas will be indicated on the record as dropf A student may drop any course or coul up to the middle of the semester on date specified in the University Caler for that term (The University Calenda
cated in the front of this Bulletin). Exeptions are made only on the basis of ach unusual circumstances as serious ersonal illness, relocation because of emloyment, et cetera. A fee is charged for ourses added or dropped. See section 3, ees and Charges. To stop attending a ass without officially dropping the ourse incurs the grade of $F$.

## Withdrawal From University

Any student who wishes to officially ithdraw from the University must do so person through the Center for Student evelopment. The student must complete 7 application for withdrawal and turn in s student identification card at the time withdrawal. Failure to officially with raw will result in the student's receiving rades of $F$ for the courses in which he is trolled. Students enrolled in evening asses withdraw in the Evening Academic ervices Office. Students enrolled in The raduate School should report their withrawals to the office of the Dean of The raduate School.
Withdrawal is not permitted after the ate specified in the University Calendar $n$ the front of this Bulletin) for that term he date on which one-half of the term is ompleted). Exceptions are made to this olicy only in cases of such extreme cirmstances as serious personal illness, location because of employment, et cet-

## CLASSIFICATION OF STUDENTS

Classification of students is based on e number of credit hours earned as lown in the table below.

| assification | Semester Hours |
| :--- | :--- |
| eshman | 0.24 |
| phomore | 25.54 |
| nior | 55.84 |
| nior | 85 or more |
| ecial | Students not working on a degree |

udents who have completed the reuired number of hours to be classified as niors but who have not completed their asic requirements in the Lower Division hould schedule these uncompleted reirements during the first semester folwing in which such courses are available order to avoid a possible delay in graduion.

## Credit Hours and Maximum Load

The unit of credit at Memphis State Unirsity is the semester hour; a semester pur is defined as the credit earned for e successful completion of one hour per eek in class for one semester; or two urs per week of laboratory for one seester. (A course which gives three seester hours credit will normally meet for ree 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 <br> Hours |
| :--- | :---: | :---: |
| Fall or Spring | 12 | $* 18$ |
| Pre Summer |  |  |
| First or Second Summer | 3 | 4 |
| Nine-Week Summer only <br> Extended Summer only | 4 | 7 |
| Nine-Week and First or <br> Second | 8 | 9 |
| Extended and First or Second <br> Nine-Week and First and <br> Second | 8 | 14 |
| Extended and First and <br> Second | 8 | 10 |
| Extended, Nine-Week, First, <br> and Second | 9 | 10 |

*This includes nether 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 twenty-one hours for the following semester.
NOTE: ID card validation of full-time for student activity purposes is based on a minimum of six credit hours per semester and does not necessarily constitute a full-time academic load.

The maximum course load for any combination of concurrent summer terms is ten semester hours. The student's course load for the entire summer session may not exceed 14 semester hours, excluding credit earned in the Pre-Summer Term or special courses which do not overlap one of the four following terms: First Summer, Second Summer, Nine.Week, or Extended Term. (This may differ from requirements for the Veterans' Administration. Questions should be directed to the Coordinator of Veterans' Affairs.)

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

*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 "l" within forty-five days from the end of the semester or summer session in which it was received, the grade of " $\mid$ " 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 "l", when reported, can be changed only by the instructor who reported them and then only after approval by the faculty Commit tee 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 "I' 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 has the privilege of repeating most courses in an attempt to improve the grade previously made. The grade he makes the last time the course is taken is the grade that will be considered as the final grade, and it is the one which will be used in the computation of the student's grade point average. The record will continue to reflect previously earned grade(s) in the same course, but neither the previously earned grade(s) nor the credit hours will be used to compute the grade point average. When a course is repeated and a failing grade is earned, the student loses the credit previously earned. A student may not attempt the same course more than three times for the purpose of obtaining a passing grade or a higher grade. There are some courses which may not be repeated for the purpose of improving a previously earned grade. Information concerning such exceptions may be obtained in the office of the chairman of the department in which the courses are offered.

## 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 attend. ance 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. 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, 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, who are domiciled in Tennessee, may enroll for courses for credit at the cost of $\$ 9$ per semester 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-nocredit hours may be acceptable in one and not in another. In every instance, approval to register for a course on a credit-nocredit 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 College of Business Administration 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 ac. cepts 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 edu. cation requirements and endorsement require. ments.
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 success. fully completes a credit-no-credit course
will receive the appropriate number hours as credit toward his graduatio These hours will not be used in the col putation of his quality point average.

## Student Grade Appeal Procedure

This appeal procedure is designed provide any undergraduate or gradua student at Memphis State University wi a clearly defined avenue for appealing tI assignment of a course grade which I believes was based on prejudice, discrin nation, arbitrary or capricious action, other reasons not related to academic pe formance. In all cases the complainit student shall have the burden of pro with respect to the allegations in his col plaint and in his request for a hearing. any party fails to pursue timely any step the procedure, the disposition of the st dent's complaint made in the last previot step shall be final. The procedure will t terminated at the level at which the i structor and the student are brought in agreement on the appealed grade. All cc respondence and records will be retaint in the office in which the complaint is nally resolved.
Step 1 The student shall first consult with the structor in an effort to provide a satisfactory reso tion of his complaint. In the event the student canr schedule a meeting with the instructor, he may cc tact the department chairman who will schedule $t$ meeting between the student and the instructor. T. only exception to this procedure is the case whe the instructor has been terminated by the Univers: or is unavailable so that it is impossible to comple Step 1 within the allotted forty-five days. In this ca' the student may proceed directly to Step 2.
Step 2 If the complaint is not resolved in Step 1, t student may present his complaint in writing to $t$ chairman of the department in which the course w offered within forty-five days from the end of $t$ term during which the grade was received. For t purposes of the grade appeal procedure, all summ sessions collectively (including the pre-summer tert will constitute a single term. (Students enrolled courses during any summer term shall have forty.fi days following the end of the last summer term which to file a grade appeal.) The department cha man will attempt to resolve the complaint in consult tion with the instructor and the student within a 1 teen-day period dating from the formal presentatic of the written complaint. The department chairmi may, at his discretion, counsel with the faculty of ti department.
If the department chairman was the instructor the course involved in the complaint or if for any re son the chairman disqualifies himself, the writt complaint of the student shall be submitted to tl dean of the college.
The student's grade may be changed in Step 2 the appeal procedure by the written consent of tl instructor and the student
Step 3 If the complaint cannot be resolved at $t 1$ level of Step 2 within the prescribed fifteen day tin period, the student within five days following the et of such period, may request in writing that the cha man forward his complaint to the dean. The cha. man must forward the student's complaint to til dean within five days. The chairman will provide ti dean with a copy of all correspondence and recort pertaining to the complaint.
The dean may utilize any resources available to $r$ office to resolve the grade conflict within a fiftee day period. The dean's decision in this matter will I formally announced at a meeting of the dean, tl chairman, the instructor, and the student. If the dea and chairman are in agreement that the gra should be changed, either raised or lowered, til dean shall be empowered to change the grade wit out the instructor's consent. Otherwise the grac shall remain as recorded.
Either the student or the instructor may appeal tl decision made under Step 3 within fifteen days by ing a written request for a hearing before the Unive sity Grade Appeals Committee. In the event of sui an appeal the decision shall be stayed pending th completion of the procedure in Step 4. The dea
be provided a copy of the hearing request.
4 The written request for a hearing before the arsity Grade Appeals Committee should state the al basis for the appeal of the dean's decision. If ommittee finds the student's or the instructor's est merits a hearing, the committee shall notify student, the instructor, the chairman and the of the time and location of the hearing. If the nittee finds that the request does not merit a ng, the student and the instructor shall be so . University Grade Appeals Committee shall proces review board. Based on its appeal re process, the committe shall make the final deci unless there is an appeal of the committee's de, by either party, to the Vice President for emic Affairs for final determination. The come shall have the power to allow the assigned to stand or to raise or lower the assigned Its decision must be formally announced to all es. The time schedule allotted for completion of n by the committee shall be fifteen days.
e University Grade Appeals Committee shall be osed of seven members and seven alternates lituted as follows:
chairman designated by the Vice President for emic Affairs, a faculty member and alternate nated by the dean of the college involved, two ty members and two alternates elected by the emic Senate, three students and three alternates ted through the Student Government Associa-
hough the primary responsibility of the commits to review appeals, the committee will report bbvious discriminatory or capricious conduct on art of either the student or the instructor to the opriate Vice President for his consideration and

## Quality Points

computing a student's scholarship , or quality point average, all courses mpted are included except credit-nolit, audit, incomplete, and satisfactoryatisfactory courses and "T" grades. an example: a student carrying five e-semester-hour courses for a total of semester hours makes the following les: $A, B, C, T, F$; he has thus accumuq quality points in the amount of 12,9, 0 , for a total of 27 . In computing his ity point average, the number of s attempted (except " $T$ "' grade (12) is led into the quality points earned (27) n average of 2.25 . Graduation: A minIn of 2.0 quality point average on all $x$ attempted is required for graduation.

## Academic Fresh Start

ACADEMIC FRESH START allowing llation of quality point average and hours toward graduation to be d only on work done after returning to lge is provided for undergraduate stuis who have gained maturity through tided experience outside academe chave demonstrated better than averEicademic performance following their in. Requirements to be satisfied by a dent requesting an Academic Fresh 3) toward a baccalaureate degree are flow:

Separation from academic institutions for at least seven years.
After returning to college, completion of at least 36 semester hours of earned graded course work prior to application for ACA. DEMIC FRESH START.
QPA of at least 2.5 for all work attempted after returning to college and at the time of application.

Formal application to the dean of the student's college, requesting that an ACA. DEMIC 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 reentry 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 subsequent to 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 <br> (2) ACADEMIC PROBATION <br> (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 follow. ing 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, term or summer session when his cumulative QPA falls below the follow. ing:

## HOURS ATTEMPTED MINIMUM QPA

| 11.99 or less | No minimum |
| :--- | :---: |
| $12.00-25.99$ | $1.00-1.39$ |
| $26.00-39.99$ | $1.40-1.69$ |
| $40.00-59.99$ | $1.70-1.89$ |
| $60.00-89.99$ | $1.90-1.99$ |
| 90.00 or more | 2.00 |

For numbers of hours attempted which are not in the table, the minimum OPA required will be based on each hour attempted. For each hour attempted from 12.00 through 90.00 , a gradual increase in minimum QPA is required. A student on academic probation who withdraws from the University during the first probationary semester will be "continued on aca-
demic 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 semester, term, or summer session during which he earns a term average of 2.00 .

A student who incurs a first suspension must remain out of the University one semester or full 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 165 of the Administration Building.

## Recognition for Academic Performance

There are several means avaiiable 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 | $3.8000-4.0000$ |

[^1]A transfer student, in order to be eligible must have made the required average on all work taken at Memphis State University and must, in addition, have an over-all average which meets the honors requirements above. In no instance may the OPA used for determining graduation with distinction be higher than that earned on courses taken at Memphis State University.

A student who already holds a 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 OPA 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 Kappa Delta, the national honorary society in sociology
Alpha Lambda Delta, a national honor society for freshman students
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 fresh-
man 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.

## 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 onefourth of the semester hours applied on the bachelor's degrees may be earned by correspondence or extension or a combination of the two. (This restriction does not apply to degree programs of the University College.)

A student who has completed thirty. three 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 credit by exil nation for the purpose of improving grade on a course(s) previously taken.

## Clep Examinations

CLEP is a national program of credi y examination, sponsored by the Col Entrance Examination Board. It offers dents the opportunity to obtain recc tion for college-level achievement. Si departments accept CLEP subject area amination credits as equivalent to dep mental courses. No credit will be awat? for CLEP general examinations. Infor a tion on courses for which CLEP cred available, along with information of charged, is available from the Acade ii Counseling Unit, the college level : sors, or the specific departments offe CLEP credits.

## Departmental Examinations

Almost all courses in the undergrad curricula, except for those of labora research, and performance variety, available for credit by examination. dents who believe they have already tered the material of a particular co offered at Memphis State may take a partmentally administered examina for credit in that course. Students shi consult the department chairman to $n$ application and to obtain information cerning the courses offered.

The following regulations govern granting of credit by examination:

1. Any enrolled student-full-time, part-tin extension-who has a 2.0 QPA may application to take an examination for A student who has been admitted but ha yet registered for courses at Memphis will have the credit earned by examir posted after he has enrolled.
2. Permission to take a credit examination be obtained from the chairman of the d ment in which credit is sought and frot dean of the college in which the stud seeking a degree. When permissic granted and after payment of the cost examination, the Dean of Admissions Records will issue an official permit fo examination.
3. The form of the examination, the metr administering it, and the time of examit are left to the discretion of college d ments.
4. To receive credit, the student's examil grade should be a grade equivalent least a C. There are no restrictions gove the number of credit hours which m earned through credit by examination. is indicated on the student's record as

## Credit By Placement Examinatio

In departments in which placemen aminations are given, a student may to receive credit for certain seque courses numbered lower than the co in which the student was placed.

1. A student may take the proficiency which is given at the beginning of ea mester, in order to best determine the course in which he should be placed. dent taking the proficiency test may immediately for the hours of credit war!
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 cred. its to be recorded.
ere is no fee charged for taking placeent 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 College Credit for Experiential Learning

Students seeking degrees in the University College may be granted credit for col-lege-level knowledge and understanding gained from work experience, life experience, or for certain non-traditional instruc-
tion. The student who wishes an assessment of such learning prepares a detailed and documented portfolio of those adult learning experiences which are to be evaluated and indicates the relationship of that knowledge to his Coordinated Study. Assessment by portfolio is reserved for knowledge and competencies which do not readily fit into the examination procedures described above. More detailed information can be obtained in the University College.



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## DEGREES OFFERED

The degrees conferred by Memphis State University are offered through The College of Arts and Sciences, The College of Business Administration, The College of Communication and Fine Arts, The College of Education, The Herff College of Engineering, The University College, The Department of Nursing, The 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 Sci. ence in Medical Technology.
The College of Business Administration: 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 Engi. neering, 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 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. Require ments 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 the 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 C or 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.

## 3. Mathematics

(3 semester hours.) All students mat successfully complete a minimum of th semester credits in mathematics or F losophy 1611.

## 4. Science

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

## 5. Physical Education

Two semesters of physical educat activity courses are required of all regi undergraduate students during the $f$ four semesters in the University. The $r$ ular undergraduate student who is $p$ time or who is taking the majority of hours in the evening is not required take the courses during the first four mesters but is encouraged to sched these courses as early as possible dur his college residency. The student may lect the activity courses of his choice. $W$ the exception of Physical Education 1 C (Conditioning), the student may not $t$ the same activity course for credit $m$ than once. He may receive credit in Ph cal Education 1001 for one or two tert but he may not receive more than two mester hours of credit for this course c ing any one term. Any student exc those with a major or minor in Phys Education has the option of taking th activity courses for a letter grade or o credit/no credit basis.

A student unable, for medical or ot reasons, to take regular physical edu tion is required to register for an adap1 class, or otherwise follow recommen tions of the Chairman of the Departm of Health, Physical Education and Recr tion.

A student may reduce the number of quired physical education credits by number of credits in Air Force ROTC cc pleted with a passing grade. Two sem ter hours of physical education may waived for students who earn two sem ter hours as members of the Memp State University Marching Band. B members are required to take a minim. of one semester of physical education a may not receive waivers for both band a Air Force ROTC.

No student other than a physical edu tion major or minor or a recreation ma may apply more than eight semes hours of physical education to the $m$ mum degree requirement of 132 sem ter hours. (See specific college lim tions.) A veteran receiving as many as semester hours of health and physical ucation for service experience may af two extra credit hours toward the m mum of 132 semester hours required graduation.


## 6. Quality Point Average

o receive a bachelor's degree from any he colleges in the University, a student rst have a quality point average of at st 2.000 (i.e., two quality points for evsemester hour attempted); If for any eson a student offers more than 132 serister hours credit for graduation, the rai of two quality points to one semester lur of credit must be maintained. To ata) this standard the candidate must ye a C average on all courses attempted rthe University. Students with transfer ibit are required to maintain an average on all courses taken at Memphis State versity.

## 7. 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 credits from a two-year collegiate institution must complete, as a requirement for the baccalaureate degree, a minimum of sixty semester hours in an accredited senior institution.) In addition, the student must meet the residence requirements for his specific degree as established by the college in which it is offered. Exceptions to residence requirements can be authorized by the appropriate dean.

Residence requirements for specific degrees within each college may be found in section 7, Colleges and Degree Programs. For more details, the student should inquire in the office of the dean of the appropriate college.

## PRE-PROFESSIONAL DEGREE PROGRAM

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

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

## REOUIREMENTS FOR TEACHER CERTIFICATION

An undergraduate student can receive a 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 ( $24-33$ semester hours) and a major endorsement 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 procedures 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 publishe the undergraduate catalog issue of Memphis State University Bulletin are lid for seven years from the beginnin the academic year to which the bul applies. A student may complete the quirements for his initial degree under provisions of any valid MSU bulletin vided the effective date of that bulleti not earlier than his initial admissiol MSU or some other accredited institu of higher learning. (This issue of the $b$ tin is valid through summer of 1988).

## SECOND BACHELOR'S DEGR

A student who has completed the quirements for one bachelor's des from Memphis State University may ceive a second bachelor's degree u the completion of the curriculum scribed in the current bulletin or anyo valid bulletin approved by the appropr degree-granting college. The two degt may be conferred simultaneously or secutively. Students who are seekin second bachelor's degree and who $t$ earned the initial bachelor's degree $f$ another institution are subject to all bi tin regulations applicable to transfer dents.

If a student completes the requireme from a valid bulletin for an additional jor for a degree previously earned at $M$ phis State University, that major may posted on the student's record if the dent applies for the additional $m$ through the appropriate dean's office.


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# The College of Arts and Sciences 

JOHN H. WAKELEY, Ph.D., Dean

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| :---: | :---: | :---: | :---: |
| 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 |  | $\begin{aligned} & \text { Bachelor of Arts (B.A.) } \\ & \text { Bachelor of Science (B.S.) } \\ & \text { Bachelor of Science in Chemistry (B.S.Ch.) } \end{aligned}$ |
|  | Physical Science |  | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| Criminal Justice | Criminal Justice | (1) Corrections <br> (2) General Criminal Justice <br> (3) Law Enforcement | Bachelor of Arts (B.A.) |
| Economics | Economics |  | Bachelor of Arts (B.A.) |
| English | English |  | Bachelor of Arts (B.A.) |
| $\dagger$ Foreign Languages | Foreign Languages (With Single language concentration from the first five or multiple language concentration from total list) | (1) French <br> (2) German <br> (3) *Russian <br> (4) Spanish <br> (5) Latin <br> (6) Greek <br> (7) Italian | Bachelor of Arts (B.A.) |
| Geography | 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) Computer Science <br> (4) Statistics | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| Philosophy | Philosophy |  | Bachelor of Arts (B.A.) |
| Physics | Ph/sics |  | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| Political Science | Political Scıence | (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 Literature |  | Bachelor of Arts (B.A.) |
|  | Medical Technology |  | Bachelor of Science in Medical Technology (B.S.M.T.) |

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

## PURPOSES

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

1) Its primary function is to offer a strong liberal arts program designed to help the student prepare himself for life in his own cultural setting by acquiring the means and the desire continually to develop his intellect and deepen his insights. "The purpose of education," wrote John Stuart Mill, "is to make capable and cultivated human beings. Men are men before they are lawyers, physicians, or manufacturers; and if you make them capable and sensible men, they will make themselves capable and sensible lawyers and physicians." It is the earnest belief of The College of Arts and Sciences that the essential 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. The program of liberal studies at Memphis State University aims to provide the student with a store of factual knowledge; to introduce him to varying sets of principles; to stimulate him to think about and to evaluate these facts and principles; and to encourage him to order his own affairs and those of his society with the talent, insight, and discrimination which he develops.
2) The College of Arts and Sciences offers this kind of education, not only to the candidates for its own degrees, but also to the students of other colleges of the University, all of whose degree plans call for courses in the liberal arts.
3) A third important function of the college is to offer preparatory courses for students interested in careers in medi-
cine, dentistry, nursing, teaching, law a other professions; specific pi professional programs, designed to $p$ pare students to qualify for admission professional schools, are available.

## ORGANIZATION OF THE COLLEGE

## Departments

The College of Arts and Sciences cc prises fourteen departments: Anthrop ogy, Biology, Criminal Justice, Engli Foreign Languages, Geography, Histe Mathematical Sciences, Philosophy, Pr

5, Political Science, Psychology, and Soology and Social Work. Requirements for e majors and minors offered by these partments are listed in this section un. Departmental Requirements for Mars and Minors.

## Concentration Groups

The various offerings of the fourteen partments of The College of Arts and iences are organized into three concention groups:
JMANITIES: English, French, German, eek, history, Italian, Latin, mathemat-
philosophy, psychology, Russian, anish.
ATURAL SCIENCES: biology, chemistry, ology (administered by The Herff Colge of Engineering), physical geography, athematics, physics.
CIAL SCIENCES: anthropology, crimiI justice, economics (administered by e College of Business Administration), ography (other than physical), history, ilosophy, political science, psychology, ciology.

## Lower and Upper Divisions

The Lower Division comprises the freshan and sophomore years, the first four mesters of undergraduate work; urses in the lower division are numred from 1000 through 2999. The Upr Division comprises the junior and sen-- years, the last four semesters of dergraduate work; courses offered in E Upper Division are numbered above 99.

## The Institute of Governmental Studies and Research

(Department of Political Science) The Institute of Governmental Studies d Research is a research and service ency operating in close coordination th the academic program of the univery. It provides research and consulting sistance to governmental agencies at e local, regional, state, national, and innational levels. The focus of the Instite is upon public decision makers. Workdirectly with the faculty of the partment of Political Science and with availability of the faculty resources of רer departments, the Institute underres functions of research and service rmane to public policy and governmenaffairs. The functions of the Institute clude the following:
I. Research: The Institute sponsors pubpolicy research in order to develop and iseminate new knowledge related to th theory and practice. It enters into ntracts for "institutional" research in dition to encouraging members of the culty to engage in individual research. search findings are published in the Intute's Public Affairs Forum, and in periic monographs.
11. Consulting, advisory, and technical sistance: The Institute renders services a wide spectrum of decision-makers, in-
cluding 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 professional training programs, institutes, and seminars for those already in public serv. ice. 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

(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 pro-
grams required by the various professional schools. A student who completes successfully six semesters of undergraduate work before entering an accredited professional school may, upon presentation of evidence of satisfactory completion of the first year of professional education, be granted a baccalaureate degree from Memphis State University, provided that the requirements set forth in the preprofessional degree program are met. The advisory committees are as follow:
Pre-Medical - This committee advises students interested in careers in medicine, dentistry, nursing, pharmacy, optometry, veterinary medicine, medical technology, and related fields in the health sciences.
Pre-Law - In general, accredited law schools have not adopted specific requirements for pre-law education; they do, however, emphasize certain courses as being conducive to the development of the broad cultural background necessary for the successful study of law. Students enrolling in The College of Arts and Sciences 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 field with the education analyst, room $211 \cdot \mathrm{~A}$, 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 BACHE. LOR 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 MEDI. CAL 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 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 with no more than 3 hours being allowed for each course.

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 follow:
English: ENGL 1101, 1102 with a minımum 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 Science: 3 courses from at least 2 departments; if 2 are from the same department, they must constitute a sequence. Courses from which these must be selected are BIOL 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 require ment); PHYS 1111, 1112 , or 1811,1812 , or 2111,2112 , or 2511, 2512.
Social Science: 15 semester hours with no more than 6 semes-
must be selected are ANTH 1100 or 1300, and ANTH 1200 or 1400; CJUS 1100; ECON 1010, 2110,2120 ; GEOG 1401 , 2301, 2311; HIST 1301, 1302; International Studies 1101, 1102; POLS 1100, 1101, 2301, 2501; PSYC 1101, 1102 ; SOCI 1111, 1112; no more than 6 hours from the following courses; JÓUR 1700; COMM 1781, 1782.
Mathematics/Philosophy: 9 semester hours as follow: 3 of mathematics plus 3 of philosophy plus 3 of either. The follow. ing courses are acceptable: MATH 1181, 1182, 1203, or 2401' 2402 2581. PHIL 1111 1611 $2291,2321,2322$, 2401, 2402,2581, Phe
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, geography, mathematics, physics, or psychology. Students majoring in anthropology, geography, or psychology (for the Bachelor of Science degree) must minor in either biology, chemistry, mathematics, 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 follow:
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.
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 Science: One of the following two-semester sequences outside the major field: BIOL 1200, 1600, CHEM 1051, 1052; CHEM 1111, 1112 ; GEOG 1101,1102 ; GEOL 1101, 1201; PHYS 1111,1112 ; or 1811, 1812; or 2111,2112 , or 2511, 2512.
Social Science: 12 semester hours from the following with not more than 6 hours in a single discipline: ANTH 1100 or 2110, 2120; GEOG 1401, 2301, 2311; HIST 1301, 1302; INTL, 1101, 1102; PHIL 1111,1611 ; POLS 1100, 1101; INTL 1101; $1102 ;$ PHIL 1111, 1611; POLS 1100, 1101,
2301,$2501 ;$ PSYC 1101, 1102 ; SOCI 1111 , 1112 no more 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 Education: for details see section 6, Graduation from the University. (NOTE: The College of Arts and Sciences ac. cepts a maximum of four semester hours in physical educa. tion activity courses toward the fulfillment of its degree re quirements.)
Major: Completion of the requirements for a major in one of the following disciplines: anthropology, biology, chemistry, geog. raphy, mathematical sciences, physics, or psychology.
Minor: Students majoring in anthropology, geography, or psy. chology (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 Bachelo Science in Chemistry, the student m complete a minimum of 132 semes hours with a quality point average of : Of the 132 semester hours required graduation, at least 45 semester ho must be in courses from the Upper $[$ sion. No more than 18 semester ho may be in courses outside The College Arts and Sciences except for courses quired for teacher certification. The quired or optional courses included in degree requirements are not a part these 18 semester hours. Detailed quirements are as follow:

English: ENGL 1101, 1102 with a minimum grade of $C$; an 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, 3200, 3301, 3311, 3; $3411,3412,3601,3602,3603,4111,4220,4900$, and additional hours in senior chemistry courses. A maximul three hours credit in advanced electives in physics or ma matics can be substituted for equal credit in senior chem courses.
Social Sciences: Three semester hours from one and six ser ter hours from another of the following areas: anthropol economics, geography (excluding earth science courses GEOG 3501, 3502, and 4510), history (excluding HIST 2 and 2602), philosophy, political science, psychology, anc ciology
Fine Arts: One of the following courses: ART 1101; M 1101; THEA 1551.
Physical Education: for details see section 6, Graduation $f$ the University. (NOTE: The College of Arts and Sciences cepts a maximum of four semester hours in physical ed tion activity courses toward the fulfillment of its degree quirements.)
Minor: Completion of the requirements for a minor in biok physics or mathematical sciences.
Electives to bring the total to 132 semester hours.

## Bachelor of Science in Medical Technology

For students interested in careers medical technology, The College of $\mathrm{Al}_{1}$ and Sciences offers a three-year prepai tory curriculum, the successful comp tion of which will qualify them to enter a school of medical technology approved the American Medical Association Coun on Medical Education. After completion the curriculum in the school of medic technology, the student is eligible for $\epsilon$ amination and certification by the Regist of Medical Technologists of the Americi Society of Clinical Pathologists.

The University maintains an affiliatic in Memphis with the Schools of Medic Technology of the Baptist Memorial Hos tal, Methodist Hospital, and St. Franc Hospital, all of which are accredited. On those students who enroll in the School Medical Technology of one of these hosf tals can qualify for the degree of Bacheli of Science in Medical Technology fro Memphis State University. Should a st dent decide to enter one of these schoo after completing successfully the prepar tory curriculum, he should apply direct to the school of his choice nine to twell months in advance of the time he wishe to enter. After the completion of his clir cal year he may apply for the degree ! Bachelor of Science in Medical Technc ogy from this University.

Specific requirements for the preparay curriculum in medical technology and additional requirements for those rking toward a baccalaureate degree e as follow:
SL 1101, 1102 with a minimum grade of $C$; and two of the Jllowing: $2101,2102,2103,2104,2105,2106$.
eign Language: 6 semester hours in one language
T 2601, 2602
C 1101 or SOCI 1111 or PHIL 1111
C 1102
TH 1212
LL $1600,2000,3070,3500,3730,3800,4440$
EM 1111, 1112, 3301, 3302, 3311, 3312, 3400, 3404
YS 2111, 2112
of the following courses: ART 1101, MUHL 1101, THEA 551
sical Education: see section 6, Graduation from the Univerity. (NOTE: The College of Arts and Sciences accepts a maxinum of four semester hours in physical education activity ourses toward the fulfillment of its degree requirements.) urses strongly recommended are: PSYC 2301, BIOL 4444 , OMM 1311, CHEM 4511, MGMT 3110 and 4210)
IMPORTANT NOTE: The preparatory rriculum in medical technology does OT qualify a student for the three-year e.professional degree program. Only ose students who enroll in the Schools Medical Technology of the Baptist morial Hospital, the Methodist Hospi, or St. Francis Hospital, all located in mphis, can qualify for the degree of chelor of Science in Medical Technoly from Memphis State University.

## DEPARTMENTAL REOUIREMENTS FOR MAJORS AND MINORS

isted below are the specific course reirements for all majors and minors ofed in The College of Arts and Sciences. ninimum grade of $C$ is required in every urse applicable toward a major or minor cluding corequisites), except in beging courses and in sophomore English. Every student should be aware that the re completion of courses outlined be4 with a grade of $C$ or better does not arantee him classification as a major or nor in the discipline concerned; he st be recommended by the chairman of department in which the major or miis sought. If, in the opinion of the airman, the quality of the student's rk is not high enough, he may require ditional work, the repetition of courses, other evidences of acceptable scholar$p$.

## THROPOLOGY

he Major: 30 semester hours in anthropology purses, including ANTH 1100 or 1300, 1200 or 400, 3200, 4065; and 18 additional semester purs, at least 6 of which must be at the 4000 level.
he Minor: 18 semester hours in anthropology purses, including ANTH 1100 or 1300,1200 or 400,3200 , and 4065.

## ors 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 1100,1200 , 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. Upon successful completion of four honors courses in anthropology (at least one of which must be an in dependent study culminating in a research pa per/thesis or research report) and a minimum of six hours in honors courses outside of anthropology, the student will receive on the diploma the special distinction "With Honors in Anthropol ogy." 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 de gree, see degree requirements described earlier in this section.)

CHEMISTRY
The Major: 32 semester hours in chemistry courses, plus related courses, outlined below
CHEM 1111, $1112,3301,3302$ or 3601,3311 ,
3312, and sufficient additional upper division semester hours.
MATH 1212, 1321, 2321, 2322.
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 3601 , 3311,3312 , and three or four upper division se mester hours.

## PHYSICAL SCIENCE

A major in physical science is suggested for those stu dents 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 addi tional 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

## The Major:

Lower division: There are no specific lower divi
sion requirements beyond those of The College of Arts and Sciences, but the student interested in majoring in Comparative Literature is advised to advance as far as possible in the study of the foreign language of his choice before the end of the sophomore year. It would be to his advantage to gain a reading proficiency in a second language as well.
Upper division: A minimum of 8 approved courses (24 upper division semester hours) so arranged as to provide concentration in two literatures (at least 9 semester hours in each). One of these must be a foreign literature in the original language developed into the 4000 level.
Courses which may be included in a Comparative Literature major:

1. Any course listed under Comparative Literature.
2. Any upper-division literature course in Greek, Latin, French, German, Italian, Russian, and Spanish. (Literature courses in the Department of Foreign Languages offered both in English translation and in the original language may be taken only once for credit.)
3. Any upper-division literature course in the Department of English.
4. CLAS 3413 and 3414, THEA 4551 and 4552, PHIL 3771 and 3451, HIST 4501 and 4502, MUHL 4407 and 4601 í.

The Minor:
Lower division: No specific requirements beyond those of The College of Arts and Sciences.
Upper division: Six courses (18 semester hours) chosen from those available to the major and approved by the director of the program.

## CRIMINAL JUSTICE

The Major: Criminal Justice: 36 hours of specific courses in criminal justice, sociology, psychology, and political science, including CJUS 1100,3128 , 3521 , SOCI 3521, PSYC 3102, plus courses from one of the following areas of concentration:
a. CORRECTIONS: CJUS $4424,4425,4532$ plus 12 additional upper division hours in criminal justice courses.
b. LAW ENFORCEMENT: CJUS 3226, 3522, POLS 3211, plus 12 additional upper division hours in criminal justice courses.
c. GENERAL CRIMINAL JUSTICE: CJUS 3226, 3326,3426 , POLS 3211 ; plus 9 additional up. per division hours in criminal justice courses.
The Minor: 18 hours in criminal justice courses including CJUS 1100.

## 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. At commencement they are awarded the special distinction "with Honors in Economics." Details of the program are available in the Economics Department office.

## ENGLISH

The Major: 24 upper division semester hours in English, including hours as specified from each of the following groups, each student's program to be arranged so as to provide the greatest possible chronological scope:

1. English Literature (6)
A. (3): ENGL $3211,3212,3213$, or 3214.
B. (3): ENGL 3221, 3222, 3223, or 3224.
2. American Literature (3): ENGL 3321, 3322, 4321, 4322.
3. Major Authors (3): ENGL 4231, 4232, 4233, or 4234.
4. Special Studies (3):
A. Language: ENGL 3501, 4501, 4602.
B. Genre: ENGL $3341,3342,3441,4241$, $4242,4251,4252$, or 4351
5. Nine additional upper division hours in English selections to be made with approval of advisor in light of choices made from first four groups.
The Minor: 15 upper division semester hours in English, including hours as specified from each of the following groups:
6. Special Studies (3):
A. Language: ENGL 3501, 4501, or 4602.
B. Genre: ENGL 3341, $3342,3441,4241$, $4242,4251,4252$, or 4351
7. American Literature (3): ENGL 3321 or 3322.
8. English Literature (3): ENGL 3211, 3212,
$3213,3214,3221,3222,3223$, or 3224.
9. Major Authors (3): ENGL 4231, 4232, 4233, or 4234.
10. One additional upper division English course (except one from the century chosen in the Group 3 option) (3).
Students who intend to pursue graduate studies are strongly advised to take courses both in Shakespeare and in Milton or Chaucer and to take courses both in genre and in language.
NOTE: Students who wish to satisfy the requirements for both English major and for endorsement to teach English in high school within the minimum of 24 hours must choose either ENGL 3321 or 4321; and either 3322 or 4322 from Group 2; ENGL 4232 or 4233 from Group 3; and ENGL 3501, 4501, and 4602 from Group 4A.
*NOTE 2: English majors are required to take ENGL 2101 and 2102. EXCEPTION: Students who elect Eng. lish as a major after successfully completing one or two of the following courses - ENGL 2103, 2104, 2105, 2106 - may meet their requirements by taking ENGL 3212 in lieu of ENGL 2101 and ENGL 3221 in lieu of ENGL 2102. (ENGL 3212 and 3221 also meet the six hour requirements of Group 1 as indicated above.)

## Honors Program:

Freshman students with high ACT scores are is sued invitations to participate in the honors pro gram, which is open to all qualified students during the freshman and sophomore years. During the junior and senior years, it is restricted to Eng. lish 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. At commencement they are awarded the special distinction "with Honors in English." 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 ei ther 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 of the following concentrations:

1. A single-language concentration in French, German, Latin, Russian*, or Spanish: 18 up. per division semester hours.
2. A two-language concentration chosen from French, German, Greek, Italian, Latin, Rus. sian, 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.

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 foreign 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 any history course taken, are eligible for admission to the honors program in his. tory. 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 be awarded the degree of Bachelor of Arts with Honors in History. 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 to 46 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 3391,4 4391, 4392; and 9 upper division semt hours of electives in the mathematical scier
(c) COMPUTER SCIENCES: MATH 4611 or $\langle$ plus 24 upper division semester hours frc list which includes all MATH 47-courses the following courses from outside the dej ment: ELEC 3220, 4222; MGMT 3750, 4 4790.
(d) STATISTICS: MATH 4611, 4612, 4613, 41 4710; and 6 upper division semester hout electives in the mathematical sciences.
The Minor: 18 semester hours in mathematical ence courses, including MATH 1321, 2321, 2322; or 6 upper division semester hours in cou. in mathematical sciences.
Honors Program:
The Department of Mathematical Science of an honors program in mathematics for the ented student who desires to achieve mathen cal maturity at a rate consistent with his owr ceptional ability. In the first year of this progr the student will investigate calculus from a tl retical viewpoint. The second year will consis exploring in depth the fundamental concept contemporary mathematics. After completior this two-year sequence, the participant will? treated as a mature student of mathematics 1 he will be allowed to register for any coursi mathematical sciences at the B.S. or M.S. I (subject to the regulation of the Graduate Scl concerning combination undergraduate-gradi? students as set forth on page five of Policie the Graduate School) regardless of the for course prerequisites. The second two years of honors program are thus characterized by ar degree of flexibility and mathematical maturat Specific requirements are as follow:

1. MATH 1401, 1402, 2401, 2402 (in lieu 1321, 2321, 2322, and 4241).
2. At least two approved one-semester cour containing significant mathematical appl' tions, taken in a department other than Mat matical Sciences.
3. A minimum of 21 hours of upper-divis courses in Mathematical Sciences, includ Senior Honors Seminar, with a QPA of 3.5 better in these courses; courses to be de mined in consultation with the student's at sor and with the approval of the departmer Honors Committee
Students completing the honors program will awarded the special distinction "With Honors in Ma ematical Sciences" at commencement. The Hon Committee of the Department of Mathematical ! ences will make all decisions concerning admissic to the program.

## PHILOSOPHY

The Major: 30 semester hours in philosor courses including PHIL 1111, 1611, 3001, 30 3411 or 3511 and 15 additional upper division mester hours.
The Minor: 18 semester hours in philosof courses, including PHIL 1111, 1611, and 12 upF division semester hours.

Honors Program:
This program is open to philosophy majors $w$ an average of 3.0 or better. The student will wr a senior honors thesis, the topic of which must approved by his director prior to the semester which he registers for PHIL 4891.

## PHYSICAL SCIENCE (See Chemistry)

## PHYSICS

The Major: 37 semester hours in physics cours including PHYS 2511, 2512 (PHYS 2111, 2112 a acceptable but not recommended) and additior upper division hours.

CHEM 1111 and 1112; MATH 1321, 2321, 232 and 3391, or equivalent courses.
The Minor: 20 semester hours in physics course including PHYS 2511, 2512 (PHYS 2111, 2112a acceptable but not recommended), and additior upper division hours.

## POLITICAL SCIENCE

The Major: 30 semester hours in political scien courses, including POLS 1100, 1101, either 23 ! or 2501, and completion of requirements for one 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 coun. ted toward the 30 semester hour requirement.

## Minors:

POLITICAL SCIENCE: 18 semester hours 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.
nors Program:
The department offers an honors program to qualified majors who choose to pursue a more sophisticated knowledge of the discipline, a more igorous level of analysis, and a deeper undertanding of politics. Students who have completed about 55 hours of course work (with at least 9 hours in Political Science) and have a minimum pver-all grade point average of 3.0 (with a mininum in Political Science of 3.25), or can present quivalent qualifications, are invited to apply for dimission to the program. The program requires 8 hours of honors course work, 12 or more of hich must be upper-division Political Science ourses, and minimum final grade point averages f 3.00 overall, 3.25 in Political Science, and 3.25 h honors coursework. Upon graduation, those uccessfully completing the program will receive n their diplomas and transcripts the special disnction "With Honors in Political Science." Deails of the program are available in the Politica cience 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 addi. tional hours at or above the 3000 level.
The Minor: 18 semester hours, in psychology, in. cluding 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 gradepoint 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, includ. ing 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 who complete the program and the regular college requirements will be awarded the degree of Bachelor of Arts or Bachelor of Science with Honors in Psychology. 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 SOCI 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 4631, 4620, 4420, 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, in cluding SOCI 1111.

SOCIAL RESEARCH: 18 semester hours in sociol ogy, 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 SOCI 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.
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 College of Business Administration 

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

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ACADEMIC PROGRAMS

| Department | Major | Concentration Within Major | Degree Offered (B.B.A.) |
| :---: | :---: | :---: | :---: |
| Accountancy | Accounting |  | Bachelor of Business Administration |
| Economics | Business Economics |  | Bachelor of Business Administration |
| Finance, Insurance, | Finance |  | Bachelor of Business Administration |
| Real Estate | 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 (Marketıng Communications) <br> (2) Marketing Management <br> (3) Retailing <br> (4) Sales <br> (5) Transportation and Logistics | Bachelor of Business Administration |
| Office Administration | Office Adminıstration | (1) Secretarial <br> (2) Office Management | Bachelor of Business Administration |
| Interdisciplinary Program | International Business |  | Bachelor of Business Admınistration |
|  | $\dagger$ Foreign Languages |  |  |

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

## PURPOSES

The function of The College of Business ministration is to provide the basic edufion necessary to prepare a person to er the profession of business. A signifiht characteristic of the college is that it vides for concentration in the basic ar; of economics and business, not as a isstitute for, but as a part of a broad libI education. From forty to sixty per cent ) he course work taken for the Bachelor Business Administration degree (a re1 red minimum of 40 per cent) is taken rjuch areas as the humanities, the natudand physical sciences, and the social ences.
he undergraduate and graduate pro1 ms of the college are fully accredited y the American Assembly of Collegiate dools of Business.

## eas of Professional Training

he College of Business Administration firs a wide selection of general and spei: zed fields, each of which has prorns designed to prepare students for a aety of careers:
AREERS IN ACCOUNTANCY: Accountl is a vital activity in any business. The leased complexity of financial records Ilting from federal regulations and the xanded use of automation necessitates lghly technical background for persons + prepare financial reports. The Departint of Accountancy administers the testllprogram of The American Institute of eified Public Accountants, the national ene of which enables students to check individual ratings with national averGraduates with a major in accountgre qualified to take the Certified PubAccountants' examination in ehessee; students desiring a career in ic accounting are encouraged to in-
tern 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 gov. ernment 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.

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, 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, Col. leges 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 AND OFFICE MANAGERS: The value sf 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. 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 College of Business Administration 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 College of Business Administration, 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 College of Business Administration who wishes to prepare himself for entrance to law school will qualify for the Bachelor of Business Administration degree. Any major in The College of Business Administration may be selected, and the regular program for that major, as outlined in the Bulletin, should be followed.

## ORGANIZATION OF THE COLLEGE

The College of Business Administration 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 undergraduate major in International Business; requirements are listed in the section pertaining to departmental requirements. In addition there are two research departments: Bureau of Business and Economic Research, and Center for Manpower Studies.

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 College of Business Administration will be assigned an advisor by the college's Advising Office. 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 College of Business Administration has 15 laboratories for student development. The laboratories include five accounting facilities with individual tables for students; six secretarial facilities, four for typewriting and two for general secretarial and office practices; one facility for data processing; two facilities equippea with electronic calculators which are used by students when studying business statistics; and one up-to-date, modern, electronic, computer-linked terminal room.

## 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 rangement.

## Center for Manpower Studie

The center offers graduate and unc graduate instruction in manpower tor within an interdisciplinary framework cluding economics, education, mana ment, political science, psychology ; sociology. Opportunities for student search projects, including theses, and internship program will be provided by center. The instructional program will provided on an inter-institutional be with Memphis State University and University of Mississippi.

In addition the center will sponsor : conduct research on problems of $m$ power allocation, policy and alternative existing practices.

ADMISSION
Requirements for admission to The ( lege of Business Administration are th set up for the University as a whole; section 2, Admission to the University. :

## RESIDENCE REQUIREMENT

Residence requirements for a degre? business administration are as follow: senior year must be in residence; at let 33 hours of upper-division busin: courses must be taken at Memphis St University; 12 of these hours must be the major field.

In order to earn a minor in this colle a transfer student majoring in one of other colleges of the University must e at Memphis State University at least 6 per division hours of the total numbel hours required for that minor.

University residence requirements explained in detail in section 6, Grac tion from the University.

## DEGREE REQUIREMENTS

The College of Business Administra! offers the degree of Bachelor of Busin Administration. To qualify for this deg the student must complete 132 seme! hours with a quality point average of : A grade of $C$ or better must be earned each course required for the major. A: dent majoring in The College of Busin Administration is not required to hav minor.
All courses used to satisfy specific gree requirements of this college musi taken on a "letter-grade credit" basis? "credit by examination." Hours earnec a "Credit-No-Credit'" basis are accer' only in courses which are designated electives in the student's degree progr: Courses taken on an "Audit" basis car be used to satisfy college requirements
A minimum of $40 \%$ ( 53 hours) of 132 semester hours required for the gree must be from outside business economics (except for the Principles Economics) and a minimum of $40 \%$ hours) of the 132 semester hours:
ired for the degree must be taken thin the college. At least 51 hours must in business courses from upper divion or other approved business related per division courses.
In addition to the requirements cited ove, electives must be selected by the udent to bring the total hours to 132 seester hours required for graduation. No 3 A student may apply more than four (4) mester hours of physical education acity courses to the minimum degree reirements of 132 semester hours. Spefic requirements are outlined in the ctions which follow.

## Intent to Graduate

Intent to graduate forms are filed with e Graduation Analyst in The College of usiness Administration (Dean's Office, pom 426A). Students are requested to hedule an appointment before the esblished application deadline published each current Bulletin or Schedule of asses. Deadlines are strictly enforced. this time, an audit of the prospective aduate's academic record is conducted, id the applicant will be provided with an ficial graduation agreement indicating e remaining degree requirements.

## Transfer Credits

A student transferring credits from a -year collegiate institution must comte a minimum of 60 semester hours in accredited senior institution. If a stuat transfers credit in business courses ich are classified as upper division level urses at this college but were taken as uer division credit or taken at a two-year titution, these courses will be repeated, idated by examination, or replaced with cher upper division business courses.

## General Requirements

Jeneral requirements for the degree inde the successful completion of the folying:

## 1/equired Courses in the Lower Division

A degree seeking student whose major isn The College of Business Administratin is expected to complete all of the reqred Lower Division (LD) course work bore enrolling in any of the Upper Divisn (UD) courses offered in this college.
Figures in parentheses indicate semeste hours credit. One-semester courses ny be taken either semester.)


| SOPHOMORE |  |  |
| :---: | :---: | :---: |
| ENGL 210-(See Note G) (3) | ENGL 210-(See Note G)(3) |  |
| HIST 2601 | HIST 2602 | (3) |
| ACCT 2010 | *ACCT 2020 | (3) |
| ECON 2110 | ECON 2120 | (3) |
| MGMT 2710 | MGMT 2711 | (3) |
| Non-Business Elective (3) | MGMT 2750 | (3) |
| 18 |  | 18 |
|  | * If ACCT Majo | Also |
|  | ```Take: ACCT 2720``` | (1) |

NOTES:
It is recommended that all business students have typewriting ability. Those who do not have this skill are encouraged to en roll 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 labora tory experience. (Minimum 6 hours).
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 courses from ENGL 2101, 2102, 2103, 2104,2105 , and 2106.

## 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:

| (PREREQUISITE: JUNIOR STANDING) |  |  |
| :---: | :---: | :---: |
| ECON 4111 | Managerial Economics | (3) |
| FIR 3011 | Business Law | (3) |
| FIR 3130 | Legal, Social and Political Environment | (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 be-
fore graduation.

* EXCEPTION: Accounting majors 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 | Major | (3) |
| FIR 3410 | Major | (3) |
| MGMT 3110 | FIR 3130 | (3) |
| MKTG 3010 | OFAD 3510 | (3) |
| *U.D. Business Elective OR | General Elective | (3) |
| (See Note) | Non-Business Elective | (3) |
| 15 |  | 18 |
| SENIOR |  |  |
| Major (3) | Major | (3) |
| Major (3) | Major | (3) |
| Major (3) | MGMT 4710 | (3) |
| ECON 4111 | General Elective | (3) |
| U.D. Business Elective (3) | General Elective | (3) |
| 15 |  | 15 |

*NOTE: Accounting majors need one less U.D. business elec tive.

## V. The Minor

A student majoring in the College of Business Administration is not required to have a minor; however, he does have such an option.

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 College of Business Administration.)

## PRE-PROFESSIONAL BUSINESS

 ADMINISTRATION MINORThe College of Business Administration offers a preprofessional minor (24 hours) for students whose major is in another college of the University. Requirements are as follow:
ACCT 2010, 2020 FIR 3410
ECON 2110,2120 MGMT 3110
FIR 3130 MKTG 3010
Prerequisites: Accounting, Economics, and junior standing are prerequisites for 3000 level courses.

## 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: ACCT 2010 and 2020, 2720, 3110, 3120. Select one of the following: ACCT 3010 or 3310.

## Department of Economics

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

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

## ECONOMICS

The Major (B.B.A.): A minımum of 21 upper division semes. ter hours in courses as follows:
ECON 3310, 3320, 4920 and four additional upper. division courses selected with the approval of the depart. ment 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 department ad visor.
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 College of Business Administration:
Nine additional upper division hours in economics ap proved 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 recommenda. tion of a member of the faculty to the Economics Depart mental Honors Committee. A student must maintain an average grade of at least 325 in economics to continue in the program and must have an average grade of 3.5 or better in economics to graduate with honors in economics. Honor students take special courses during the junior and senior years, particularly the honors sections of ECON 3310 and 3320 , and write a senior research paper. At commencement they are awarded the special distinction "with honors in Economics". Detalls of the program are available 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 theory, 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 minimum 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 College of Business Administration:
Nine upper division hours in finance approved by the department chairman.
For the student whose major is within another colloge of the University:

ACCT 2010 and 2020; ECON 2110, 2120, 3610; FIR 3410, 3710. Three additional upper division hours ap proved by the department chairman.

## insurance

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

## REAL ESTATE

The Major: A minimum of 21 upper division semester hours in courses, as follows:
FIR 3310, 4310, 4320, 4340, and a minimum of 9 upper division hours in courses selected with the approval of the advisor.
The Minor:
For the student whose major is in the College of Business Administration:
FIR 3310 and six additional upper division hours in real es. tate 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 management; 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 busin problems. Such techniques often requ the utilization of computers for their si tion. Thus this curriculum incorpora three related areas of study: Statist mathematical methods (operations search), and computer utilization.

## MANAGEMENT

The Major: a minimum of 21 upper division semester h including MGMT 4420, and courses as listed in the fo ing concentration areas:

## GENERAL MANAGEMENT

MGMT 4210, 4510; ACCT 3010; FIR 4610. The remain hours of the 21 hours minimum for the major may $b$ lected from any upper division courses in the Departme Management OR approved upper division courses in Thi lege of Business Administration.

## PERSONNEL ADMINISTRATION AND.

 INDUSTRIAL RELATIONSMGMT 4210, 4220, 4230, 4240. The remaining 6 hol the 21 hour minimum for the major may be selected any upper division courses in the Department of Mai ment OR other approved upper division courses.
Recommended courses include:
MGMT 3215, 4421; ECON 3210; FIR 4440; PSYC : 4301; TECH 3386.

## PRODUCTION MANAGEMENT

MGMT 4510; ACCT 3010. The remaining 12 hours $s$ 21 hour minimum for the major may be selected fror upper division courses in the Department of Manage OR other approved upper division courses.
Recommended courses include the following:
MGMT 3760; ACCT 3310; MKTG 4220. Up tc courses from the following: TECH 4460, 4462, 4466.

## QUANTITATIVE METHODS AND BUSIN SYSTEMS

MGMT 3750, 3760, 3780, 4420, 4755, 4780. The re ing 3 hours of the 21 hour minimum of the major lected from a set of approved courses which includes 3010, 3310, FIR 3720, MGMT 4711, and MKTG 363 C The Minor: For the student whose major is within anothi lege of the University:
ACCT 2010, 2020; ECON 2110, 2120; FIR 3410; $\AA$ 3110 , and three approved upper division semester in management approved by the department chairma
For students whose major is in other departments il College of Business Administration:
Nine additional upper division semester hours in ma ment approved by the department chairman.

## Department of Marketing

The objective of the Department of 1 keting is to provide a broad concept of marketing process and to develop an derstanding of all the factors involvel the assembly and distribution of gc and services.

Marketing majors may choose $f$ among five areas of a concentratior outlined below. Four of the areas lea specific career areas in the field of $r$ keting. Emphasis is placed upon the $p$ tical application of marketing conce This approach teaches entry level s while preparing for future advancemer top positions in marketing managemer

## MARKETING

The Major: a mınimum of 21 upper division semester in marketing courses, as follows
MKTG 3012, 3610, 4080, 4901. Nine additional from one of the marketing concentrations listed be hours must be 4000 level):
ADVERTISING (Marketing Communications) Mass cC nication media, advertising agencies, advertising $C$ ments, advertising decisions, and other advertisi tivities: MKTG 3140, 3170, 4150.
TRANSPORTATION AND LOGISTICS: Backgroun careers with transportation companies, industrial or governmental agencies. Interfaces among th tion's transportation system, the firm's logistic work, and public policy. Total of nine hours st from these courses:
3-6 hours from: MK TG 3620, 3630
plus: 3.6 hours from: MKTG 4610, 4620, 4692.
MARKETING MANAGEMENT: Allows a concentrat
marketing without specialization. (A minimum of 9 se mester hours, at least 3 hours at the 4000 course level) MKTG 3140, 3320, 3620, 4410, (Prerequisite: MKTG 3410), $4410,4530$.

ETAILING: Background in the operation and manage ment of retail establishments: MKTG 3320, 3330, 4330 SALES: Field of sales from basic salesmanship through sales management; Both theoretical and practical as pects: MKTG $3410,4410,4420$.
Minor:
For the student whose major is In another college of the University:
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: MK TG 3012, 3610, 4080; and any 9 hours of marketing courses approved by the department chaırman
For the student whose major is in the College of Business Administration:
Twelve (12) hours of marketing courses approved by the Jepartment chairman.

## Department of Office Administration

he objectives of the Department of OfAdministration are to provide a broad kground for an executive secretarial in business; to provide the opportufor sufficient competency to enter and ance in the area of office manageint; and to provide the opportunity for specialization and certification for the iduate to teach business education in isecondary schools.
he student planning to major in office ginistration will take in his freshman $\Rightarrow$ OFAD 1210 and 1220, Elementary lewriting and Intermediate TypewritIf he has had previous training in ewriting, he will omit 1210 and take 20 and a higher-numbered typewriting crse, or one semester of an approved live.
he student planning an area of constration in office administrationetarial will take in his sophomore year ID 2120 and 2130, Fundamentals of trthand and Intermediate Shorthand. If as had previous training in shorthand, will omit 2120 and take 2130 and a her-numbered shorthand course, or
one semester of an approved elective. Students planning an area of concentration in office administration-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 Major (Secretarial Concentration): a minimum of 21 up. per division semester hours of office administration courses, as follows: OFAD 3140, 3250, 4270, 4320, 4330, and two of the following courses, selected in conference with advisor: OFAD 4161 -63, 4340, 4410, 4420.
The Minor (Secretarial Concentration):
For the student whose major is in another college of the University:
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 either 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 College of Business Administration.
Upper division hours in three additional courses in Otfice Administration approved by the department chairman.
The Major (Managerial Concentration): a minimum of 21 up-per-division semester hours of courses as follows: OFAD 4320, 4330, 4410 ; ACCT 3010, and two of the following courses, selected in conference with advisor: MGMT 4210, 4420, 3750; FIR 4610; MKTG 4330; ECON 4111.
The Minor (Management Concentration):
For the student whose major is in another college of the University:
ACCT 2010, 2020; ECON 2110,2120 ; OFAD 3510,4410 , and upper division hours in two additional courses in office administration approved by the advisor.

## THE PROGRAM IN INTERNATIONAL BUSINESS

## ASSOCIATE PROFESSOR JOHN J. REID, Advisor

## Business Administration 415

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 to ward the B.B.A. degree. For additional requirements during the sophomore and junior years, see the Interna tional Business advisor. Students majoring in Internatıonal Business are required to take six credit hours in foreign language. It is also strongly suggested that the students take more than six hours. Students meeting all the require ments established by the College of Business Administra. tion 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 conferred 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 College of Business Administration, distributed as follows: 15 semester hours ( 5 courses) from the following group:
ACCT 4310, Internatıonal 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 4111 , Managerial Economics
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 Col lege of Business Administration:
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 Unviersity:

The student will take a minimum of 18 hours within the College of Business Administration, at least 9 hours of 4000 ECON 4340,4350 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 Internatioal 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

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## 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 <br> (Choral) <br> (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.) |
| 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 | Bachelor of Fine Arts (B.F.A.) |

## PHILOSOPHY

The College of Communication and Fine ts is ultimately focused upon visual and dible symbols, whose rational and emonal values it is the mission of the colge to create and explore. In the belief at perception is largely shaped by expeence, The College of Communication d Fine Arts offers a range of symbolilly rendered experiences, both individland collective, in the hope of broaden$g$ and sensitizing the perceptions of its udents.
The kind of symbolic experience which mmunicates emerges when, in Ruskin's arase, "the hand, the head and the heart man go together." Students in The Colge of Communication and Fine Arts refive individual and small group instrucin toward this end. In the hope of rthering the capacity to impose a patin on experience and to recognize the tterns offered by others, students of the cllege are additionally exposed to curses drawn from a broad base of the eral arts.
The faculty of the college represents a cersity of academic and artistic backtounds and interests, reflected not only its teaching, but also in research and leative activities. It is a faculty united in attempt to maintain the highest standys in both classroom and studio work, indards which find their limits at last $y$ in the mystery and wonder of the huran 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. Fi nally, 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.

## ADMISS!ON

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 semes. ter 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 211.A, 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.

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. No student may count more than eight physical activity credit hours toward the completion of his degree.

## 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 divi-
sion 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 the following: $2101,2102,2103,2104$, 2105, 2106.
Humanities: six semester hours to be chosen from commu nications, English, foreign languages, history, music history, philosophy, or theatre history.
History: HIST 2601,2602
Natural/Physical Science: 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. (Art education majors must also complete all general education courses outlined in section II of the Requirements for Teacher Certification as listed.
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. (Students in Interior Design are required to take ART 3103, 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; 4621, 4622; 4611 NOTE: Selection of fourteen (14) appropriate courses from the nineteen (19) courses listed above
b. Graphic Design ( 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 ( 48 hours):

ART 2314, 3523; $3411,3413,3421,4421$; 4424; EDFD 2011., EDPS 2111, 3121, ELED 4821, SCED
4441,4841 .
e. Design (33 hours):
2312. TECH 1611 , ART 2701, 3240, 4201, 4202. 4205, 4206, 4207, 4208, 4611.
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 <br> (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. Two areas of specialization are offered: I. Performance and II. Production. Students entering the B.F.A. program will elect one of these
two areas for concentrated study. The dent will normally begin his speciali training at the end of the sophomore ye
Admission: Admission to the B.F.A. I gram in Theatre Arts is based on selec procedures.

Entrance into the Performance are based on auditions and interview. The dition/interviews are held twice yea near the end of each semester. The at tion will consist of two scenes of appr mately two minutes duration each for a tal of no more than five minutes. scenes should be from plays of distin: different styles and/or periods.

Following a group of scenes, a critil session will be held. Applicants will be tified within a few days that they $h$ been accepted into the program, accep for one more semester on a probation sis, or advised to pursue another deg program.

An interview is also required for adn sion to the Production area. The stud will submit a portfolio of his graphic wi This may consist of sketches, costu plates, elevations, light plots, grot plans, etc.
Remaining in the B.F.A. Program: The 1 must be emphasized that admission to B.F.A. curriculum does not imply a : dent's permanent tenure in the progri At the end of each semester the studen expected to audition and his work will assessed by the theatre faculty. His ar tic growth, his development of techn facility, his continuing commitment to $i$ ative excellence-all will be evaluat Permission to continue in the program be based upon his evaluation.
Transfer of Credit: In certain cases : dents may be admitted to an advani level of the B.F.A. training program. St admission will be based upon: (1) an at tion and interview; (2) the student's pri ous course work in theatre, particularl the area of his special interest; (3) the ? dent's previous involvements in prod tion experience; (4) letters of recomm dation from former Theatre $A$ instructors and/or directors. Even if mitted to an advanced standing, the s dent will be required to remedy previs course deficiencies.
Advising: Upon admission to the B.F program, each student will be assigne faculty advisor. For this degree, 146 mester hours are required for graduati at least 97 of which must be in the courses. A minimum grade of $C$ is quired in all theatre courses; the stud must maintain an overall quality point erage 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

## Humanities:

Six semester hours to be chosen from commu-
nications, English, foreign languages, history, music history, philosophy, or art history.
History: HIST 2601, 2602
Natural/Physical Sciences: (Sequence not required)
Natural/Physical Sciences:
Mathematics or PHIL 1611
Physical Education (THEA 2501 or
2502 may be substituted for one
(1) P.E. course)

## BASIC THEATRE CORE COURSES (37

 hours):THEA 1212, 1411, 1561, 2501, 2511, 2512, 2531, 3521, 3541, 3542, 4551, 4552, 4582 .

## CONCENTRATION AREAS

## Performance or Production

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 and dance, directing, oral interpretation, playwriting, design, theatre technology, management will determine sequence structure. FOR EX
Performance (Acting Sequence) ( 60 hours):
THEA 2502, 2532, 2515, 3542, 3411, 3451, 3505, 3506, 3531, 3532, 4451, 4502, 4531, 4581, 4541. Production (Design/Theatre Technology Sequence) (60 hours:
THEA 3542, 3511, 3512, 3513, 3561, 4562, 4567. 4541 (15)

## ELECTIVES

Elective courses chosen in conference with the student's advisor to complete the total of 146 semeste hours.
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 vear) is an es. sential 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

The Bachelor of Music is a professional gree, the requirements for which prole the student with a greater opportu$y$ for specialization in music than he $s$ under the other baccalaureate proams; as many as 92 of the 132 semeshours required for graduation may be music. A minimum grade of $C$ is reired in all upper division music courses; student must maintain an overall qualpoint average of 2.0 . The specific derequirements are divided into five ups: (1) general education, (2) basic isic courses, (3) courses required for $e$ of the eleven concentrations as outd, (4) music electives and (5) elective urses other than music and music eduion to bring the total to 132 semester urs. Transfer students must complete Memphis State University at least 30 nester hours of upper division credit in music degree program.
nission: Applicants seeking admission music majors must complete and subto the Admissions Office of Memphis te University a formal application form. addition to academic considerations, mission to the music degree program uires a personal interview (where appliile) and an audition of all candidates. audition consists of (1) performance the student's major applied area and a music theory examination (written aural). Candidates are accepted on basis of accomplishment, future mise, and suitability for the program in rch they wish to enroll. Candidates aulion at designated locations on Saturis, November through April, or by apontment. Students seeking admittance smusic majors in the fall semester are euired to audition no later than June 15. idents seeking admittance as music nors in the spring semester are relred to audition no later than December dditional information regarding admitafe as a music major may be obtained h)ugh the office of the Department of今ic.

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 $C$; and two of the following: 2101, 2102, 2103, 2104 , 2105, 2106 (12).
Foreign language: 6 semester hours in one foreign language: for details see advisor (6).
History: HIST 2601, 2602 (6).
Science: A two-semester sequence course ( 6 semester hours or more) in biology, chemistry, GEOG 1101، 1102; geology, or physics ( 6.8 ).
Mathematics: 3 semester hours from the following: 1181, $1182,1203,1211,1212,1312,1321,2291,2321$, or 2611; or PHIL 1611.
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, 3010,3102(22)
MUH 3301, 3302 , History of Music (6)
Major Ensembles: A minimum of eight semesters of large ensemble is required of music majors (Exceptions to this policy are pianists with concentration in Performance, Pedagogy, or Chamber Music and guitarists who are required to have a minimum of 6 semesters of large en semble). Only one large ensemble credit per semester may be applied to the fulfillment of this requirement. All university students must enroll in a large ensemble during each semester in which they are enrolled in applied studio or group instruction. 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 appropriate ensemble director, and the applied studio teacher.
Piano Proficiency: All undergraduate music students must complete a piano placement examınation 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) by successful completion of MUSE 1108, Class Instruction in Piano, or (2) by passing, without credit, the proficiency in piano based on the level of study described in MUSE 1108. Copies of the requirements for the piano proficiency examination are available on request in the Music Department office. After successful completion of the piano proficiency examination, music students whose major instrument is not piano may be accepted for major group 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 take the proficiency examination during the first semester of residence or enroll in Class Piano at the appropriate level.
Applied Music Workshop: All music majors are required to take MUAP 1000 each semester they are registered in the University, for a minimum of seven semesters. Attendance at 12 recitals per semester is required.

## 3. MAJOR: Music

Concentration Areas (choose one)
a. Brass Instruments (46 hours).

Individual instruction in major instrument (32)
Individual instruction in two secondary brass instruMUSE 1104, Class Instruction in Woodwind Instruments (2)

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 Emphasis ( 43 hours):
Individual instruction in voice (16)
MUSE 1101, Class Instruction in Brass Instruments (2)
MUSE 1109, 1110, Class Instruction in String Instruments (2)
MUSE 1104, Class Instruction in Woodwind Instruments (2)

MUSE 4701, Choral Conducting (2)
Senior Recital (MUSE 4799) or MUAP 4619) (1)
MUSA 4001, Judeo-Christian Music (3)
MUSA 4002, History of Liturgies (3)
MUSA 4002, History of Liturg
MUSA 4201, Church Choir Organization and Training (3)
Small Ensembles, 4 semesters required; to be chosen from those listed under "Small Ensembles and Chamfrom those listed under "Small Ensembles and Cham. tion $8(4)$

Organ Emphasis (52 hours):
Individual instruction in organ (24)
Individual instruction in voice (4)
MUSE 3700, Basic Conducting (2)
MUSA 4001, Judeo Christian Music (3)
MUSA 4002, History of Liturgies (3)
MUSA 4003, Hymnology (3)
MUSA 4701, Choral Conducting (2)
MUSA 4102, Church Choir and Console Conducting (3)
MUSA 4201, Church Choir Organization and Training (3)
Senior Recital (MUAP 4339) (1)
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)
c. Composition (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)
(at least four semesters)
MUTC 4511 , Intermediate Electronic Music (2)
MUTC 4512, Advanced Electronic Music (2)
MUTC 3105, 3106, 3108, Counterpoint (6)
MUTC 3103, 3106,3108 , Counterpoint (6)
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)
Collegium 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-composition majors MUTC
MUTC 3105, 3106, 3108 , Counterpoint (6)
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 Twentieth Century (3)
MUTC 4105, Analytical Techniques (3)
MUSE 4701, Choral Conducting (2)
Upper Division Music History (6)
f. Organ (58 hours):

Individual instruction in organ (40)
MUAP 4338, 4399 Junior and Senior Recitals (2)
MUSA 4001, Judeo-Christian Music (3)
MUSA 4002, History of Liturgies (3)
MUSA 4101 , Service Playing (3)
MUSA 4102, Church Choir and Console Conducting (3) Small Ensembles, 4 semesters required to be chosen from those listed under ''Small Ensembles and Chamber Music" in the description of music courses in sec tion 8 (4)
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. Piano and/or Harpsichord

Chamber Music Emphasis (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 Piano Repertory (3)
MUAP 3301 Chamber Music for Pianists (6)
MUHL 4002, 4003, OR 4004: Song Repertory J, Song,
Repertory II, or Survey of Chamber Music for Piano (2).
Mepertory 11 , or Survey of Cham 4318 Junior Recital (1)
MUAP 4348 Junior Accompanying Recital (1)
MUAP 4349 Senior Accompanying Recital (1)
Pedagogy Emphasis (54 hours):
Individual instruction in piano (32)
MUSE 4501, Basic Piano Pedagogy (3)
MUSE 4503 Advanced Piano Pedagogy (3)
MUSE 4505 Principles of Acompanying (3)
MUSE 4505 Principles of Acompa
MUAP 3301 Chamber Music for Pianists (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)
MUSE 4505 Principles of Accomp
MUAP 3301 Chamber Music for Pianists (6)
MUAP 3301 Chamber Music for Pianists (6)
MUAP 4318, 4319 Junior and Senior Recitals (2)
i. Strings ( 47 hours).

Individual lessons in major instrument (32) ndividual instruction in two secondary string instru ments (4)
MUTC 3103, Advanced Orchestration (3)
MUSE 3700, Basic Conducting (2)
Junior and Senior Recital (2)
Small Ensembles, 4 semesters required to be chosen from those listed under "Small Ensembles and Cham ber Music" in the description of music courses in sec tion 8 (4)
j. Voice/Opera

Voice Emphasis (53 hours):
Individual instruction in voice (24)
MUHL 4002, 4003 Song Repertory (4)
MUHL 4407 The Opera and Music Drama (3)
MUSE 4701 Choral Conducting (2)
Foreign Language (12) In addition to 6 hours general ed ucation requirement, 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 per formance 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)
MUHL 4002, 4003 Song Repertory (4)
MUHL 4407 Opera and Music Drama (3)
Theatre ( 6 hours from the following):
THEA 155 1, 2501, 2515, 2531,35
THEA $1551,2501,2515,2531,3511$ Foreign Language (12) In addition to 6 hours general ed ucation requirements, 6 hours each in 2 other lan guages (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 3604 Opera Production (3)
k. Woodwinds ( 51 hours):

Individual instruction in major instrument (32)
Individual instruction in three secondary instruments (6)
MUSE 1101, Class instruction in Brass Instruments (2)
MUTC 3103, Advanced Orchestration (3)
MUSE 3700 , Basic Conducting (2)
Junior and Senior Recitals (2)
mall Ensembles, 4 semesters required; to be chosen from those listed under "Small Ensembles and Chamber Music" in the description of music courses in sec tion 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 se-
mester 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 gaduation.)

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 science: 3 courses from at least 2 departments; if 2 are from the same department, they must constitute a sequence. Courses from which these must be selected are BIOL 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 .
Social science: 15 semester hours with no more than 6 semes ter hours in a single discipline. Courses from which these must be selected are ANTH 1100 or 1300, and ANTH 1200 or 1400; CJUS 1100; ECON 1010, 2110,$2120 ;$ GEOG 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 follow. ing courses are acceptable: MATH 1181, 1182, 1203 or 1211, 1212, 1312, 1321, 1401, 1402, 2291, 2321, 2322, 2401, 2402, 2581, PHIL 1111, 1611
Fine Arts: Two of the following courses: ART 1101; MUHL 1101; THEA 1551
Physical Education: for details see section 6, Graduation from the University.
Major: Completion of requirements for one of the majors listed below.
Electives: to bring the total to 132 semester hours.

## MAJORS (Choose one) <br> ART HISTORY

The Major: 36 semester hours in art history courses, including ART 2101, 2102, 4167, 4168, and 4611, and 21 additional semester hours in art history, 9 of which must be taken from the upper division.

## ART

The Major: None available
The Minor: 24 semester hours in art courses, 9 of which must be from the upper division.

## JOURNALISM

Note: All journalism students must have typing proficiency before admission to JOUR 2121
Students majoring in journalism may select only one concentra within the 132 hars and may the concentration in film and videotape production wegree, the concentren theatre and communication arts major. Twelve semester hours in a secondary area of emphasis, outside the Department of Journalism, approved by the student's advisor, is recom mended

## The Major:

Journalism core (required of all students majoring in ןournal ism) (12 hours): JOUR 1700, 2121, 4700, and one of the fo lowing: 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 (20 hours): JOUR 2123, 3625, 3720, 4629; COMM 3823, 3824
NEWS EDITORIAL (Choose one emphasis)

Magazine (18 hours): JOUR 2123, 2200, 3205, 3214, 35 3720.

Newspaper(13. 14 hours): JOUR 2123, 3125, 3720, 41 and 3123 or 4726 or, for students meeting the speci criteria, 4130.
Photojournalism ( 16 hours): JOUR 2123, 2520, 3525, 35 3720, 4830 ( 1 hour)
PUBLIC RELATIONS ( 27.28 hours): JOUR 2123, 3400, 34 3720, 4423. COMM 1311, 3322. JOUR 3625 or CO 3823, and MKTG 3010 or OFAD 3510 . Twelve seme hours in a secondary area of emphasis, outside the Dep ment of Journalism, approved by the student's advisor.
The Minor: Students may qualify for a minor in general jour ism by completing 18 semester hours in journalism cour including JOUR 1700, 2121, 3400, and 9 additional sen ter hours selected from the upper division.
Practical experience is avallable to all journalism students The Helmsman; The DeSoto, University yearbook; or in on the following activities: University Public Information Of Athletic Publicity Office, Alumni Publicity Office, Photo Ser Department. Oualified majors will be chosen for senior yea ternships with Memphis newspapers, magazines, advertis public relations agencies, and broadcasting stations.

## APPLIED MUSIC

The Major: None.
The Minor: $24-28$ hours in basic music courses plus the $c$ pletion of the requirements for a minor; specific courses outlined below:
Basic music courses (22 hours)
MUTC 1008, 1010, 1009, 1011, 2008, 2010 (12 hours MUHL 3301, 3302
Individual instruction in piano, organ, voice, or orche instrument, 4 semester hours
Applied Music Workshop (See section 8, Descriptio Courses, for details.)
Applied Music (4 hours)
4 semester hours of individual instruction in upper-divi courses.

## THEATRE AND COMMUNICATION ARTS

Select one of the following concentration areas:
BROADCASTING: 36.37 semester hours, including T 1551, COMM 1781, 1782, 2321 or 3322 or 3341,38 3823 or $3821,4810,4857$, and 12 additional COMM ho which must include two of the following courses: CO $4811,4831,4854$, or 4871 .
COMMUNICATION: 36 semester hours, including TI 1551. COMM 1780, 1781, or 1782, 2321 or 232 ' 3341,3800 or 3851,2781 or 3322,4341 or 437 : 4375,3013 or 3372 or 3373, and 12 additional hour be selected from COMM. At least 18 hours of concentra must be uper division hours.
FILM AND VIDEO TAPE PRODUCTION: 38 semestr hours cluding THEA 1551, COMM 1780, 1781 or 1782, 232 3322 or $3341,3823,3824,4824$ or 4825,4842 or 48 and 12 additional COMM hours which must include tw the following courses: $4851,4852,4853$, or 4854.
GENERAL SPEECH AND THEATRE: 36 semester hours cluding THEA 1411 and 1551, COMM 1780, 178 1782, 2321 or 2322 or 334 in 2781 ore $3322,3851,3$ and twelve additional hours in Theatre and Communica Arts. At least 18
division courses
THEATRE: 36 hours in theatre courses:
Core ( 24 hours): THEA 1411, 1561, 2501, 2511 OR 2 2531,3541 (1), 3542 (2), 4551 OR 4552, COMM 17 Electives in Theatre ( 12 hours): specific courses for phasis (acting, stage movement and dance, direct oral interpretation, playwriting, history and criticism sign, theatre technology, management) to be chose conference with student's advisor.
The Minor: Any student wishing to minor in any area (Com nication Arts, Theate, Theatre and Communication Arts the Department of Theatre and Communication Arts sh see the department chairman who will assign an approp advisor. The minor must consist of at least 15 hours of proved course work, as determined by the student in col ence with his advisor and with the approval of the dpartr chairman.


## The College of Education

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ACADEMIC PROGRAMS

| Department | 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> Spanish <br> Health Education <br> Elementary Physical <br> Education <br> Secondary Physical 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 Economics | Business Education <br> Secretarial Practice <br> Bookkeeping, <br> General Business <br> Typewriting <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> Latin <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 |  |
| Distributive Education | Distributive Education | Distributive Education | Distributive Education | Bachelor of Science in Education (B.S.Ed.) |
| Health, Physical Education and Recreation | Health Education Physical Education (Elementary) (Secondary) <br> *Recreation and Park Administration | Health Education Elementary Physical Education Secondary Physical Education | Health Education Elementary Physical Education Secondary Physical Education | Bachelor of Science in Education (B.S.Ed.) |
| Home Economics | *Home Economics (Child Development) (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) <br> (Occupational Food Services) | Vocational Home Economics |  | Bachelor of Science in Education (B.S.Ed.) |
| Library Science |  |  | Librarian |  |
| Music <br> (College of Communication and Fine Arts) | $\begin{aligned} & \text { Music Education } \\ & \text { (Instrumental Music) } \\ & \text { (School Music) } \\ & \hline \end{aligned}$ | 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 | Special Education | Bachelor of Science in Education (B.S.Ed.) |

[^2]
## PURPOSES

In helping Memphis State University hieve its three broad objectives of aching, public service, and research, the bllege of Education has the following lecific objectives: (1) to work with hools and other appropriate organizans in recruiting desirable and promis$g$ candidates into education careers; (2) provide preparation programs which oduce teachers and related educational rrsonnel sufficient in quantity and comtence to help meet the needs of the ate, region, and nation; (3) to provide ograms and services for other educamal personnel already in service which rable them to acquire additional prepation needed for changing career objeces and continuous professional growth; ) to provide effective personnel services such areas as certification, placement, ad follow-up to undergraduates, graduies, and educators in service; (5) to prote a comprehensive program of resarch and service to schools and other propriate agencies in the state and reon; and (6) to provide appropriate proams and services needed by Memphis ate University in its efforts to continusly improve the effectiveness of teachand learning at the University.

## ORGANIZATION OF THE COLLEGE

The College of Education is composed d the following departments: Curriculum ed Instruction; Counseling and Personil Services; Distributive Education; Eduttional Administration and Supervision; fundations of Education; Health, Physid) Education and Recreation, Home Ecormics, Library Science, and Special Eduation and Rehabilitation. Other units in te college are described in the following tragraphs.

## Bureau of Educational <br> Research and Services

The Bureau of Educational Research Services is a catalytic agency for the motion of research and development in Ie College of Education. As such, it is coordinating agency of the college for s/eral types of activities that involve facy members: research, evaluation, proam development, and field services. Iroughout its years of operation it has ovided for the initiation of programs at are now departmentalized) and for 2gram coordination involving two or ire departments.
Shrough the bureau, the faculty of the $\therefore$ lege serves the community, state, rejn, and nation by participating in joint intures with local school systems, instirions of higher education in Tennessee, 1) State of Tennessee, the U.S. Office of Ercation, the armed forces, and other ormizations of local, regional, and national zencies.

Research projects involving faculty members relate to delivery systems, testiny and test development, faculty improvement, surveys, and assessment efforts. Evaluation activities center on learning disabilities, pre-vocational education, science, social science, Title । 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 $2, A d$ mission 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 - grade point average of 2.25 in professional 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
Proficiency in English - grade point average of 2.00 in all English courses completed or at least a grade of " C " in English 1101 and 1102.
3. 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 recom mended by the College of Education for a psycho logical assessment provided by the MSU Psychologi cal Services Center and any student in the Teacher Education Program may volunteer to participate in the psychological assessment procedure. The stu dent 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
4. Desire to work effectively with students
5. Completion of 36 semester hours of the 45 semes ter 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 satistactory performance in an early re lated field experience.
9. Specific recommendations from faculty members professor under whom applicant completed EDFD 2011 or EDPS 2111 and professor under whom ap plicant has completed a course in the major en dorsement, 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 chair man, or other official.
*Information on factors 5.9 should be submitted by the stu dent, 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) Student 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 his 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 his 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 (K-3) are required to enroll for a fifteen hour professional semester during the first semester of the senior year. This professional semester includes student teaching, divided between primary grades and Kindergarten, and a one-week academic marathon.

## NOTE: STUDENTS WHO ENROLL FOR STUDENT TEACHING MAY NOT REGISTER FOR ANY COURSE WHICH IS SCHED. ULED 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 teach. ing: ELED 4821
Kindergarten: Student Teaching: ELED 4811 . Student teachKindergarten: Student Teaching: ELEO 4811 . Student teach-
ing in elementary and kindergarten may be taken during the ing in elementary

Early Childhood Education (K-3): Student teaching , 4821 and ELED 4811. NOTE: Both must be taken during first semester of the senior year.
Secondary Education: SCED 4441 and appropriate electi professional education, if not already completed; dent teaching: SCED 4841.
Distributive Education: DTED 4630, 4641; Student teacl DTED 4871.
Special Education: Student Teaching: SPER 4541. N Student Teachıng in Special Education and in Elementa Secondary Education may be done during the same se. ter.
Grades in student teaching are repor as " S " (satisfactory) or " U " (unsatis tory).

Requirements for enrolling for stud teaching are as follows:

1. Filing of application with the director of stu teaching during the semester prior to the on which the student teaching is to be done. Apk tions for student teaching to be done in the fal mester must be filed by March 1; for the sprin\} mester by October 1.
2. Admittance to and good standing with the Tea Education Program. (See page 69.)
3. Classification as a senior or graduate student.
4. Completion of at least one semester of resident Memphis State University (minimum of twelve mester hours).
5. An over all average of at least 2.25; an avera@ the endorsement area(s) of at least 2.25; an : age of 2.25 in all protessional education courses
6. Completion of EDFD 2011, EDPS 2111, 3121, SPER 2000.
7. Completion of ELED 3241, 3251, 3261, 3: 4242, and EDUC 3301, 4344 for those preparir teach in elementary schools; ELED 2211 and $/$ for kindergarten; or the appropriate secondary $n$ ods course(s) for those preparing to teach in ondary schools.
8. Completion of either the elementary or secon endorsement(s) is expected. Exceptions must be proved by the Director of Professional Labor
Experiences after consultation with the major Experiences after consultation with the major : sor and department chairperson.
9. Approval by the applicant's advisor and by the of tor of student teaching.

## RESIDENCE REQUIREMENTS

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

## DEGREE REQUIREMENTS

## Accreditation

The College of Education holds $m \epsilon$ bership in the American Association Colleges for Teacher Education. Its unc graduate programs through the doctc degree for the preparation of teachers a related school personnel are fully credited by the National Council for creditation of Teacher Education.

## College Honors Program

The College of Education Honors F gram is intended to provide opportunit for students of junior standing who si to demonstrate excellence in acadei achievement. It offers a series of spet cally designed honors sections : courses from which 18 hours must taken and a 3.25 quality point averi maintained. Specific information ab: the College Honors Program may be tained in the office of the dean.

## Degrees Offered

The College of Education offers the chelor of Science in Education, Bacheof Science in Home Economics, and Bachelor of Music Education degrees. To qualify for a degree from The College Education, the student must complete 2 semester hours of which at least 45 Ist be upper division hours and a miniIm of 60 hours must be of liberal conit. The grade point average requirents for those degree programs leading teacher certification include the follow1 : a cumulative average of at least 2.25; ninimum average of 2.25 for all credit ned at Memphis State University, exding all credit transferred from other titutions; and a minimum average of .5 in all courses attempted in each maor minor endorsement area; and an avge of at least 2.25 in all professional ucation courses, required or elective. e degree requirements for those majors ich do not lead to teacher certification lude the following required grade point erages: a cumulative average of at least ; a minimum average of 2.25 in all jrses attempted in the major field; and average of at least 2.25 in all profes. nal education courses, required or elec. Professional education courses are all dergraduate courses offered by the detments of Curriculum and Instruction, unseling and Personnel Services; Disputive Education, Foundations of Eduion, and Special Education and Rehatation.
Sourses in the following fields will meet liberal content requirement: anthroogy, art (non-applied), biology, chemiseconomics, English, geography, geolhistory, journalism (non-applied), guages, mathematics, music (nonplied), philosophy, physics, political scie, psychology, sociology, and speech. following courses offered in The Col;e of Education will meet this requirent: EDPS 2111, EDFD 4012, and 4021; IH 1102 and 1202; HMEC 1101, 34, 2101, and 2202.
ourse requirements for all degrees inIde the successful completion of the heral education program, physical eduton activity courses, and a major in The lege of Education. Programs leading to Echer certification include two additional hponents: the professional education Igram and endorsement in one or more eching areas. Majors in Home Economo (Child Development, Dietetics, MerIndising, and Food Administration), Zreation and Park Administration, and Tiabilitation Education complete only hse professional education courses fcified in their programs and do not chplete an endorsement since these maare not intended to satisfy teacher efification requirements. These requiremits are outlined in detail in the sections vich 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, 2 102, 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 2911 or THEA 1411 for elementary or early childhood certification; COMM 1211 or 1311 or THEA 1411 for secondary certification; COMM 1211, 1311,2911 , or THEA 1411 for special education certıfication.
Natural Sciences: 9 semester hours (Including one twosemester laboratory sequence) in two of the following sciences: biology, chemistry, physics, earth sciences (defined for purpose of this requirement to include GEOG 1101, 1102, 4111, 4121, 4122, 4131, and any course in geology.)
Note: Laboratory sequences possible in earth sciences are GEOG 1101 and 1102, or GEOL 1101 and 1201, or GEOG 1101 and GEOL 1101
Social Sciences: 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 elemen. tary, early childhood or special education certification; MATH 1181 or any higher-numbered mathematics course for secondary certification.

## II. The Professional Education 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), EDUC 3301, 4344, for a total of 45 hours; OR Field. Based Program: specitic course requirements are to be completed in three sequential semester blocks as follows: Block I - ELED 3241, 4242, 4243; Block II - ELED 3251, 3261, 3271, EDUC 3301; Block II 45 ELED 4821 ( 9 hours), EDUC 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 meth. ods cours $\in(s)$, and one elective applicable for secondary school teachers, for a total of 30 semester hours. MUSE 4401 may be used to satısfy the secondary education elective for students completing a major endorsement in Music Education.
5. FOR SPECIAL EDUCATION CERTIFICATE: SPER 3012, 4012, 4541 ( 9 hours), and ELED 3241, 4242, for a total of 30 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 edu cation (SPER 4541) and six (6) semester hours in elther elementary (ELED 4821) or secondary educa tion (SCED 4841). The special education student completing requirements for a secondary certıficate may use the method course SPER 3012 to satisfy the secondary elective.
NOTE: Students will be required to take approprıate 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 al ternative 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 op. tion 3)
For specific endorsements, any one of the following: SCED 3376, 3377, 3378, 3379, the applicable courses depending on endorsements selected.
Driver Education: No methods course is offered.

English: SCED 3341 . For major endorsement, SCED 4341 and EDUC 4344 (additional requirements, one of which can be used to satusty the secondary education elective.)
Foreign Language: SCED 3348
Health Instruction: HLTH 3102
Home Economics: (Vocatıonal Home Economics): SCED 3383 Industrial Arts: SCED 3384 (same as VTED 4210).
Librarian: 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 Science: SCED 3351 and/or 3362
Music: SCED 3322 (same as MUSE 4203)
Physical Education: PHED 3803
Psychology: SCED 3372
Science: SCED 3361 (blology), 3362 (chemistry, physics, gen-
eral science, and earth and space science)
Social Studies: SCED 3371
Speech and Drama: SCED 3346

## ill.Physical Education Activity Courses

Four semester hours 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 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 tach 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 grade 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 en-
dorsement. 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. (Choose A, B, C, D, E, F, or G, H, or I, or combination of these.)
(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 Certificate (48 hours)

ART 3411; BIOL 2001 and 2002 OR BIOL 1200 and 1600 and 3050; GEOG 2301, 2311 ; HLTH 3306; LIBS 4111 . 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.
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, eco nomics, history (other than HIST 2601, 2602), political sci ence, or sociology.
B. Kindergarten Ihrough 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 elemen tary cerlificate, 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 certification in kindergarten through third grade only.
EARLY CHILDHOOD EDUCATION: Same as the following areas of the major requirements:

1. Supportive Content ( 30 hours)
2. Early Childhood Education ( 15 hours).
3. Area of Specialiization ( $6-12$ hours).
4. Electives ( $5 \cdot 11$ hours)
D. Speciai Education

Major Endorsement ( 39 hours): Same as the requirements for the major.
Minor Endorsement ( 30 hours): Sarne 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. Librarian

Major Endorsement - Not available
Minor Endorsement (21 hours):
LIBS 4111, 4121, 4131, 4401, 4232, 4331, EDUC 4301
For certification as librarian, a student must complete all requirements for either the elementary certificate (Grades 1.9) or the secondary certificate with a major endorsement in a subject area (Grades 7-12).
F. Elementary Physicai Education (Grades K-9)

Major Endorsement ( 50 hours): Same as the requirements for the major concentration.
Minor Endorsement: (41 hours): Same as the requirements for the minor concentration.
G. Vocationai 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. Occupationai Chiid Care Services (18 hours)
b. Occupalionai Food Services ( 18 hours)
c. Occupationai Clothling Services (21 hours)
H. Certificales 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 require-
ments for the major.
Minor Endorsement (33 hours): Same as the requirements for the minor.
3. MUSIC EDUCATION

Major Endorsement: ( $43-47$ 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 Emphasis
(1) School Music (vocal emphasis) (19 hours)
MUSE 4202,4701

MUSE 4202, 4701
Applied Music ( 14 hours)
MUSE 1115
MUSE 1115
Piano - Class Instruction or Individual Lessons (4
hours) hours)
Voice - Class Instruction or Individual Lessons (4
hours) hours)
Additional
Additional individual lessons above the Preparatory Level in either Piano or Voice (4 hours)
(2) Instrumental Music (23 hours)

MUSE 1103, 4204, 4700
Applied Music ( 17 hours)
MUSE 1101, 1104, 1109, 1110
Piano - Class Instruction or Individual Lessons (4 hours)
Voice -
hours) Class Instruction or Individual Lessons (2 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 se mester hours, and complete either the requirements for a major endorsement (b) or a minor endorsement (c). Endorsement in specific subjects is optional (d), but cannot be taken without completing the major or minor endorsement requirements. For computation of the grade 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 MÁTH 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 ad2. sanced shorthand.

Six hours in typewriting, including one course in advanced typewriting. OFAD 4270; 4320 OR
c. Minor Endorsements ( 10.18 hours plus 18 hour core) 1. Secretarial Practice ( 18 hours)

OFAD 4270; 4320 OR 4330 OR 4400 OR 4410 Six hours in shorthand, including one course in ad. vanced shorthand
Six hours in typewriting, including one course in advanced typewriting
2. Bookkeeplng - 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 - Generai 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 Arithmetic ( 3 or 6 hours)

MATH 1211 and 2291 (may be included in core)
3. Business English ( 0 or 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.
9. Office and Clericai Practice ( 3 hours) OFAD 4320 OR 4330 OR 4400 OR 4410
10. Saiesmanship ( 6 hours)

MKTG 3010, 3410
11. Secretarlai Practice ( 15 hours) Endorsement in Office and Clerical Practice,

Shorthand and Typewriting
12. Shorthand ( 6 hours)

Six hours in shorthand, including one cour 3. Typewred shorthand
13. Typewriting ( 6 hours)

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

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

Major Endorsement (36 hours)
12 hours freshman and sophomore level cou ENGL 1101, 1102, and any two of the following: 2
2102, 2103, 2104, 2105, 2106; 24 upper div.
4233; 3501; 4501; 4602; 3211 OR 3212 OR 321
3214; 3221 OR 3222 OR 3223 OR 3224
Minor Endorsement (30 hours)
12 semester hours freshman and sophomore
courses (same as required for major endorsement
18 upper division hours: ENGL 3321 OR 4321: 3 OR 4322; 4232 OR 4233; 3501 OR $4501 ; 4602$; any one of the following: 3211, 3212, 3213, 3 $3221,3222,3223,3224$.
4. FOREIGN LANGUAGES

Endorsement may be obtained in French, German, L Russian and/or Spanish. Two or more high school of one foreign language may be used in lieu of fresh level courses in that language. Credit in any of the I division courses may be earned by proficiency. Elec
should be selected in consultation with the advisor.
should be s
a. French
Major Endorsement ( 33 hours)
Lower division French, or the equivalent ( 12 hol FREN 3301, 3302, 3411, 4301, 4305, 4501. tive (3 hours)
Minor Endorsement (24 hours)
Lower division French, or the equivalent ( 12 hol Four upper division courses, selected from the lowing: FREN 3301, 3302, 3411, 4301, 4305,4
b. German

Students electing a major endorsement in Ger must complete requirements for another major dorsement or minor endorsement in a complemer teaching area.
Major Endorsement ( 33 hours) Lower division German, or the equivalent ( 12 ho GERM $3301,3302,3411,3412,4501$, electiy hours)
Minor Endorsement (24 hours)
Lower division German, or the equivalent ( 12 hc Four upper division courses, selected from th
lowing: GERM $3301,3302,3411,3412,4501$
c. Latin

Students electing a major endorsement in Latin complete requirements for another major end ment or minor endorsement in a complemel teaching area.
Major Endorsement (33 hours) Lower division Latin, or the equivalent ( 12 hours. LATN $3111,3211,3811,3912,4711$, electivy hours)
Minor Endorsement (24 hours) Lower division Latin, or the equivalent (12 hour: Four upper division courses, selected from the lowing: LATN $3111,3211,3811,3912,4711$
d. Russian

Major Endorsement - Not available
Minor Endorsement (24 hours) Lower division Russian, or the equivalent (1; mester hours)
Four upper division courses, selected from the lowing: RUSS 3301, 3302, 3411, 3412, 3 3442, 3443
e. Spanish

Major Endorsement (33 hours)
Lower division Spanish or the equivalent ( 12 hol SPAN 3300 ( 6 hours), 3411 and 3412 OR 351 ! 3512, 4301, 4302, 4501

## Minor Endorsement (24 hours)

Lower division Spanish or the equivalent (12 hot Four upper division courses, selected from thr lowing: SPAN 3300 (6 ho
$3512,4301,4302,4501$
5. INDUSTRIAL ARTS EDUCATION

Students seeking endorsement in Industrial Arts st take the following courses, which may be used to: General Education requirements:
MATH 1213, CHEM 1051, PHYS 1111 and 1112.
Major Endorsement ( 45 hours) TECH 1511, 1611, 1711, 1811, 1821, 2555, 3 3601, 3718, 4355, VTED 1011. Six semester 1 . Six semester hours electives in technology Minor Endorsement ( 39 hours)
TECH 1511, 1611, 1711, 1811, 1821, 2555, 3 3601, 3718, 4355, VTED 1011. Six semester ${ }^{+}$ from the following: ART 2213, 2221 or JOUR 3 Completion of the specified courses required fomajor and the minor endorsements leads toward tification in industrial arts. Additional certificati
the following single subjects may be earned by pleting 3 additional hours in each area desired: Drafting (TECH 2511 or 2512 is recommended)

Electricity/Electronics (TECH 2821 or 3841 is recommended)
Metals (TECH 3781 is recommended)
Plastics (TECH 3410 is recommended)
Wood (TECH 2611, 2651 , or 3611 or 3631 is recom mended

## MATHEMATICS

Major Endorsement (32 hours)
MATH 12 13; 1321, 2321
One course in each of the following areas:
Geometry (MATH 2581 is recommended)
Probability (Mrogramming (MATH 4710 is recom mended)
Theory of Numbers (MATH 4221 is recommended)
History of Mathematics (MATH 4151 recommended)
Six hours from the following: MATH 2322, 2611
$3111,3241,4261,4111,4171,4241,4411,4611$ Minor Endorsement (20 hours)
MATH 1213; 1321, 2321, and nine hours from the fol lowing: MATH 2322, 2581, 2611, 3111, 3241, 4111, $4151,4171,4221,4241,4261,4411,4611,4631$, $4710^{\circ}$
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 ${ }^{t}$
quired fee $(\$ 15.00$ ) and get the credit for the course. quired fee $(\$ 15.00)$ and get the credit for the course.
NOTE: Students in the Honors Program in Mathematic may use MATH 1401, 1402, 2401, and 2402 to satisfy the may use MATH
following requirements: MATH 1213, 1321, 2321, 2611 , following ${ }^{\text {for }}$, 3241 .
and

## . MATHEMATICS AND PHYSICAL SCIENCE

Major Endorsement (61 hours)
Requires completion of minor endorsements in mathe matics, chemistry, and physics and two methods courses (one each in mathematics and in physical science.
Mathematics: (20 hours)
MATH 1213, 1321, 2321, and nine hours from the fol lowing: MATH 2322, 2581, 2611, 3241, 4151, 4171, 4221, 4241, 4411, 4611, 4710 .
Chemistry: (20 hours)
CHEM $1111,1112,3301,3302,3311,3312,3400$, 3404.

Physics: (2 1 hours)
PHYS 1811, 1812 (or an approved physics elective), 2111, 2112 (Prerequisite: MATH 1212), 3010, and one $\mathbf{3}^{\prime}$ hour elective in physics chosen in consultation with major advisor.
Minor Endorsement - Not available
PHYSICAL EDUCATION (Secondary) Grades 7.12
Major Endorsement ( $55-56$ hours): Same as the require ments for the major concentration.
Minor Endorsement ( $43-44$ hours): Same as the require ments for the minor concentration.

## PSYCHOLOGY

Major Endorsement - Not available
Minor Endorsement - (21-22 hours)
A. PSYC 1101; PSYC 2302 or SOCI 3322; PSYC 3106 or SOCI 3701; PSYC 4104
B. Six hours chosen from the following areas: Develop mental Psychology (PSYC 3103); Abnormal Psy chology (PSYC 3102); Personality Dynamics (PSYC 3101); Child Psychology; Adolescent Psychology (EDPS 4112 or SOCI 4760).
C. Three hours of electives: The electives may be se lected from any undergraduate courses taught in the Department of Psychology; taught in the Department of Educational Foundations (EDPS); or 3302 and SOCI 3701, or both EDPS 4112 and SOCI 3302 and SOCI 3701, or both EDPS 4112 and SOCI Courses taken in Educational Psychoqogy (EDPS) may not be counted toward fulfilling both profesmay not be counted encation and endorsement requirements
0. SCIENCE

## a. Biology

Major Endorsement (35 hours)
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)

## Chemistry

Major Endorsement ( 32 hours)
CHEM 1111, 1112, 3301, 3302, 3311, 3312, 3400, 3401, 3404, 3407; PHYS 2111, 2112 (Pre requisite: MATH 1212)
Minor Endorsement (20 hours)
CHEM 1111, 1112, 3301, 3302, 3311, $3312, ~$ 3400, 3404

## Physics

Major Endorsement ( 33 hours)
PHYS 1811, 1812, 2111, 2112 (Prerequisite MATH 1212), 3010, 3211, 3510; CHEM 1111

Minor Endorsement ( 26 hours)
PHYS 1811, 1812 (or an approved physics elective), 2111, 2112 (Prerequisite: MATH 1212), 3010
CHEM 1111, 1112

## d. General Science

Major Endorsement (37 hours) BIOL 1200, 1600, 2000, 3070; CHEM 1111, 1112 Corequisite: MATH 1211, 1212 or 1321); PHYS 111 and 2112 (Prerequisite: MATH 1212) Earth Science elective ( 3 hours)
Minor Endorsement (23 hours)
BIOL 1200, 1600; CHEM 1111, 1112, (Corequisite MATH 1211, 1212 or 1321); PHYS 2111 (Prerequi site: MATH 1212)
e. Earth and Space Sciences

Major Endorsement (33 hours)
GEOL 1101, 1201, 2312, 3100; PHYS 1811; GEOG 1101, 3501, 4111, 4122, 4131
Minor Endorsement (23 hours)
GEOL 1101, 2312, 3100; PHYS 1811; GEOG 1101, 4111, $4131^{\prime}$
11. SOCIAL STUDIES
a. Economics, Geography, Government, and Sociology

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 be upper division.
Up to 6 hours may be taken in cognate social sci ence areas supportive to the major (excluding HIST 2601, 2602), and selected in consultation with advi sor.

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 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 mi. nor (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 consulta tion 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 sci ence areas supportive to the major (economics, so ciology, 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,' $1561,2530,3521,3542$ (3 hours), 4921
Minor Endorsement (21 hours)
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

The Major: (45 hours)
EDFD 2011; EDPS 2111, 3121; and ELED 3241, 3251, 3261,
3271, 4242, 4243, 4821 ( 9 hours); EDUC 3301, 4344, SPER 2000.

The following must also be completed: (1) the requirements of general education, (2) the elementary endorsement.
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
elective appropriate for secondary school teachers. The requirements of general education and at least one major 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), COMM 2911 or THEA 1411.
3. Early Childhood Education ( 15 hours)

HMEC 2101 and 4101; ELED 2211,3212 , and 4411
4. *Area of Specialization (6. 12 hours)

A minimum of six hours and a maximum of 12 hours con stitute a specialization area. See academic advisor for areas requiring more than six hours. Examples of areas of specialization presently identified are: elementary educa tion, library service, mathematics, child development, ge ography, biology, special education, physical education, health, reading and language, psychology, and sociology.
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.


## Distributive Education

The Department of Distributive Education offers a major and a minor in distributive education.

## DISTRIBUTIVE EDUCATION

The Major: ( $33-36$ hours)
ECON 2110, 2120; DTED 4621; MKTG 3010. MKTG elective (3 hours).
6 hours from the following: marketing electives, HMEC 3700, 3705, 4604
12 hours of electives in business administration and/or jour nalism directly related to the distributive education curriculum (to be chosen in consultation with advisor)
2 years of acceptable work experience in one or more market ing occupations OR HMEC 4705 (or HMEC 4804) OR MKTG 4991 or other approved University supervised occupational experience practicum, plus one year of acceptable work expe rience. ( 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); 6 hours from the following: MKTG electives: HMEC 3700, 3705,$4604 ; 6$ 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 marketing occupa tions OR HMEC 4705 (or HMEC 4804) or MKTG 4991 plus one year of acceptable work experience ( 2000 clock hours equal one year)

## 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: ( 50 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: (55.56 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 Education: (41 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: (43-44
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 1413, 1502, 1572, 1621, 1713, 1813. 1923. 1941

For Women: PHED 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 academic areas in consultation with advisor: biology, educational foundations, elementary education, guidance, health education, home economics, physical education, psychology. secondary education, sociology, and special education. ucation programs cannot be used to satisfy health educaucation progr
The Minor: ( 33 hours)
HLTH 1102, 1202, 1302, 3202, 4102; SAFE 2102; BIOL 1631, 1632, 3400 or 1400: HMEC 2202.
Electives ( 3 hours) to be chosen from the areas listed for ma-
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 labora. tory 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
SOCI 1111, elective (3 hours)
ANTH 1200 (3 hours)
MATH 1181, or any higher number
Humanittes: 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 1 102; 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 Recreation and Youth Organization.

## Department of Home Economics

A co-operative relationship exists between Memphis State University and the Merrill-Paimer Institute of Detroit, Michigan, whereby a second-semester junior or first-semester senior majoring in Home Economics-Child Development may enroll for one semester of study at MerrillPalmer with the semester hours earned being transferred îoward graduation at Memphis State.

A cooperative relationship also exists with the Fashion Institute of Technology in New York City, whereby Home EconomicsMerchandising majors may enroll for one semester of study in New York with the semester hours earned being transferred to-
ward 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. Child Development: ( 57 hours)

HMEC 4101, 4201, 4301, 4401; ART 3411; PSYC 1101 1102, 3103, 3302; EDFD 2011; EDPS 2111, 3121; ELED 2211, 4212, 4811.
Electives in Home Economics (12 hours)
For those students wishing to complete the requirements for $\mathrm{K} \cdot 3$ certification along with the child development concentration:

1. Delete the requirement of PSYC 3302
2. Reduce the home economics electives required from 12 to 9 hours
3. Complete the requirements for the early childhood edu cation major program.
b. Dietetics ( 86 hours):

HMEC 2102, 3204, 3302, 3602, 4102, 4402, 4502, 4802 , CHEM 1111, 1112, 3301, 3302, 3311, 3312, 4501, 4502 4511,4512 ; BIOL 1631, 1632, 3500; ECON 2110,2120 ; MGMT 2710, 3110, 4210; EDPS 3121; ANTH 1200; MATH 1203.
c. Food Administration ( 57 hours)

HMEC 2102, 3302, 3602, 3702, 3802, 3902, 4502; ACCT 2010, 2020; ECON 2110, 2120; MGMT 2710, 3110 4210, 4420; MKTG 3010, 3410, 4220
d. Merchandising-Fashion ( 51 hours):

HMEC 1105, 2005, 2205, 3004, 3700, 3705, 4405, 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.
e. Merchandising-Home Furnishing ( 51 hours) HMEC 3004, 3204, 3700, 3704, 4204, 4304, 4604, 4804. Busıness Admınistration 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.

## 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 ap. plied toward occupational certification)
The following optional concentration or certification areas re quire the completion of the major requirements in vocational home economics in addition to the courses specified in the desired area(s). Prerequisite: All occupational major subject matter courses must be completed prior to internship.
a. Occupatlonal Chlld 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 ( 21 hours): HMEC 2205 3393, 4305, 4315, 4405, 4505.
NOTE: These requirements are in addition to University re quirements and required courses of The College of Education.

## Department of Library Science

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; EDUC 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 cour listed above.

## Department of Special Education and Rehabilitatio

The following programs lead tow certification in Special Education (gra K-12). The Department of Special Edu tion and Rehabilitation offers a major : a minor in special education and a ma in rehabilitation education.

## Honors Program:

1. Criteria for Admission

Upon completion of thirty semester hours, a student ma tain application forms from the department and file for ac ance into the Special Education and Rehabilitation Honors ram. The credentials of each applicant will be reviewed $b$ Honors Committee (to be determined by the department man), and will be evaluated for the following minimum rec ments.
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 vided).
D. At least forty hours of service to exceptional persons,
or as a volunteer, and a letter of support from the sup
sor(s) where the services were given.
Each applicant will be notified in writing of the Honors ( mittee's decision.
2. Criteria for Retention

Once the student has been accepted into the SPER Hc
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 minimum grade of $B$ in each honors course attempt Specific details of the program may be obtained in the offil the department chairman.

## SPECIAL EDUCATION

Major: (39 hours)
SPER 3003, 3013, 3014, 3201, 3401, 3501, 3516, 3 4002, 4013; ART 3411 or TECH 4375; MATH 1182; F. 3303 or 3806.
Minor: (30 hours)
SPER 3003, 3013, 3014, 3201, 3401, 3501, 3516, 3 4002, 4013.

## REHABILITATION EDUCATION

Major:
. Rehabilitation Core: ( 48 hours)
SPER 3901, 3911, 3912 4902, 4903, 4941 (6 ho
SWRK 3902, 3903, 3904; PSYC 3101; DTED 3010.
SOCI: Twelve hours from the following: 4631 or 3 3831,4420 or $3422,3501,3521$ or $4522,4851,485$

## 2. Concentration Areas:

a. Rehabilitation Education (36 hours):

SPER 2000, 3002, 3003, 3201, 3401, 3501, 49C 3012, 4905 or 3014 ; GUID 4621; EDPS 2111,3 4112.
b. Rehabilitation of the Public Offender ( 36 sem hours):
SPER 3201, 3401, 3501, 4904 or 3012,4905 or 3 PSYC 3102.
18 semester hours of work in the fields of crimina ice, guidance, psychology or sociology selected in sultation with advisor.
c. Vocational Evaluation ( 33 hours);

SPER $3002,3501,4904$ or 3012,4905 or 3014,4 4914, 4915, 4916; PSYC 3102, 3301; SOCI 4842.

## Music Education

Studies in music education qualify : dents for teaching school music or ins mental music in the public schools. $T$ degree plans are offered: the Bachelon Music Education with a concentration a in (1) School Music, (2) Instrumental I sic or the Bachelor of Science in Edu tion with endorsement in (1) School I sic, (2) Instrumental Music.

## BACHELOR OF MUSIC EDUCATION

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

1. Basic Music: ( $50.5 \cdot 52.5$ hours)

MUTC 1008, 1010, 1009, 1011, 2008, 2010, 3008, 3
3101, 3010 (19 hours)
MUHL 3301,3302 (6) ( 3 hours applicable to Humanit General Education)
MUSE 1108 . Requirement can be satisfied by succe
ompletion of piano proficiency ( $0-2$ hours). Proficiency in iano. no more than 4 hours of class piano may satisty deree requirements (See section 8, Description of Courses, or detalls).
pplied Music (14) Individual lessons in major applied area icluding at least four semester hours of upper division redit.
unior Recital (1)

Music Ensembles: One major ensemble for every semester of residence except for the semester of student teaching (7).

MUAP 1000: each semester of residence except for the semester of student teaching, 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, MUSE 1101, 1103, 1104
$3700,4204,4700$ (16)



# The Herff College of Engineering 

ORVILLE E. WHEELER, B.E., M.S.C.E., Ph.D., P.E., Dean

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## Residence Requirements

## Degree Requirements

Degrees Offered

## Engineering Core

## Departmental Requirements

## Civil Engineering

Electrical Engineering
Mechanical Engineering
Geology
Engineering Technology

## ACADEMIC PROGRAMS

| Department | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Civil Engineering | Civil Engineering* | (1) Construction Engineering <br> (2) Environmental Engineering <br> (3) Foundation Engineering <br> (4) Structural Engineering <br> (5) Transportation Engineering | Bachelor of Science in Civil Engınering (B.S.C.E.) |
| Electrical Engineering | Electrical Engıneerıng* | (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 Engineerıng* | (1) Design and Manufacturing <br> (2) Energy System: <br> (3) Fluid Power Systems <br> (4) 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* |  |  |
|  | Construction Technology* |  |  |
|  | Electronics Technology* |  |  |
|  | Manufacturing Technology* | (1) Drafting and Design Technology* <br> (2) Forest Products <br> (3) Industrial Safety <br> (4) Production Management <br> (5) Supervisior, |  |
|  | Trade and Industrial Vocational Technical Education | (1) General <br> (2) Industrial Arts | Bachelor of Science in Technology (B.S.T.) |

*Note: Accredited by the Engıneer's Council for Professıonal Development

## Pre-Med Engineering

The Herff College of Engineering at emphis State University has an option students enrolled in an engineering ogram. This option is called "Pre-Med. gineering'. It adds another degree of xibility to the students' options as they proach the completion of their baccareate degree. The program was genered in response to the students' request qualify for entrance into a medical hool in conjunction with a back-up, and phly marketable, degree in an engineerfield. This idea is in concert with the canging attitudes of medical schools, vo are now encouraging a variety of cefully planned baccalaureate profams. They feel that such liberalization vuld improve the overall spectrum and califications of the medical profession in it attempt to handle the ever-increasing cmplexity of society's health care problons.
The student interested in this pre-medegineering option should take the regulef first two years of the common engirering core-including both semesters ogeneral chemistry. As the student prog. rises through these first two years, he spuld then contact the chairman of the egineering department of his choice who isquthorized to substitute the courses in ojanic chemistry for certain technical cirses normally taken in the junior and spior years. CHEM 3311 (Organic Chemisy) and CHEM 3301 (Lab) plus CHEM 312 and CHEM 3302 are the eight senster hours of organic chemistry, while B) L 1200 (Botany) and BIOL 1600 (Zool$\%$ ) are the courses recommended by the Medical Units admissions office and Vmphis State's biology department. T se courses should be taken by the stu.
dent as a junior so as to assist him in tak. ing 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 princi pal 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 4.3 million-dollar 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 1.7 million dollars worth of 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 | 3 | ENGL 1102 | 3 |
| MATH 1321 | 4 | MATH 2321 | 4 |
| ENGR 1001 | 1 | PHYS 2511 | 4 |
| ENGR 1011 | 2 | Natural Science (See Note 1) | 4 |
| ENGR 1021 | 2 |  |  |
| CHEM 1111 | 4 |  |  |
| PHED 1- $\quad \dagger$ |  | PHED 1- |  |
| Phys. Activity ${ }^{\dagger}$ | 2 | Phys. Activity $\dagger$ | 2 |
| ROTC 1111 | (1) | ROTC 1112 | (1) |
|  | 17-18 |  | 16.17 |

$\dagger_{\text {A minimum total of } 4 \text { semester credit hours of PHED }}$ 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).

## SOPHOMORE YEAR

| ENGL 21-* | 3 | ENGL 21-* | 3 |
| :---: | :---: | :---: | :---: |
| MATH 2322 | 4 | MATH 3391 | 3 |
| PHYS 2512 | 4 | ELEC 2201, 2203 | 4 |
| CIVL 2131 | 3 | MECH 2332 | 3 |
| ECON 2110 | 3 | H\&S Elective (See Note 2) | 3 |
| ROTC 2211 | (1) | ROTC 2212 | (1) |
| or | 2 | or ${ }^{\text {or }}$ - ${ }^{\text {a }}$ | 2 |
|  |  | PHED Activit |  |
|  | 18-19 |  | -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 re quired. 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 | 3 | CIVL 3111 |
| :--- | :---: | :--- |
| CIVIL 3121 | 3 | CIVIL 3122 |
| MECH 3322 | 4 | CIVL 3131 |
| MECH 3311 | 3 | MECH 3361 |
| MECH 3331 | 4 | H\&S Elective |
|  |  |  |
|  |  | (See Note 2) |

## SENIOR YEAR

| CIVL 4141 | 3 | CIVL 3141 |
| :--- | :---: | :--- |
| CIVL 4151 | 4 | CIVL 4135 |
| CIVL 4161 | 3 | Civil Engr. Elective <br> (See Note 4) <br> Civil Engr. Elective <br> (See Note 4) |
| H\&S Elective <br> (See Note 2) | 3 | Technical Elective <br> (See Note 3) |
|  | $\frac{3}{16}$ |  |

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

Areas of specialization include envir mental engineering, structural analy and design, foundation engineerii transportation engineering, and constr tion engineering.

## CIVIL ENGINEERING

The Major: 40 semester hours in civil engineering course cluding CIVL $3101,3111,3121,3122,3131,3141,4$ cluding CIVL $3101,3111,3121,3122,3131,3141,4$ $4141,4151,4161$ and 9 hours of civil engineering ele courses. A student may select courses from the follo concentrations to satisfy the required 9 semester hout civil engineering electives and the 3 semester hours of nical electives required for a Bachelor of Science in Civi: gineering:
a. Environmental Engineering: CIVL 4143, 4144, 4148, 4
b. Foundation Engineering: CIVL 3135,4152, 4191
c. Structural Engineering: CIVL 3135, 4131, 4136, $\mathbf{4}^{\prime}$ 4191
d. Transportation Engineering: CIVL 3135, 3136, 4 $4162,4164,4191$
e. Construction Engineering: CIVL $3135,4164,4171,4$ $4173,4174,4191$

## Electrical Engineering

Students enrolled in electrical engin $\epsilon$ ing are offered a modern, well-balan curriculum which is designed to provid thorough background and understand of the theoretical and physical princip of electric and magnetic phenomena. concepts and techniques of mathema and physics are applied in a wide var of studies designed to guide the stud into a career which will enable him to $C$ tribute to the design, construction, : utilization of products which are benefi to man. At the same time, the curricul provides adequate flexibility for the : dent to specialize in one of the many verse and exciting areas of space technology.

Laboratory facilities are available fc wide variety of instructional and resea activities. These facilities are located $i$ new engineering building which provi the latest advances in equipment and cilities.

Career opportunities include positi in development and design, reseal sales, management, manufacturing, construction. Some of the technical ar
opportunity lie in the design, develop nt and use of analog and digital comers, communications systems, power eration and distribution systems, miwave and antenna systems, automatic itrol systems, and general instrumenta7. An undergraduate student, with the oroval of the department chairman, y also elect to take special technical humanities and social science elecwhich satisfy the course entrance re. rements for medical school.
he Department of Electrical Engineeroffers a Master of Science degree for se electrical engineers who desire adiced study in the areas of hybrid comers, microwave and antenna systems, nmunications systems, solid state elecnics and automatic control systems.
The minimum requirements for the dee of Bachelor of Science in Electrical gineering are as follows (for the fresh. n and sophomore years, see the comin engineering core previously listed). average grade of " C " must be mainned in all undergraduate electrical engiering course work.

## JUNIOR YEAR

| $\begin{aligned} & \text { C } 3201 \\ & \text { C } 3211,3213 \\ & \text { CH } 3311 \\ & \text { nical Elective } \\ & \text { ee Note 3) } \end{aligned}$ | 4 | ELEC 3202 | 3 |
| :---: | :---: | :---: | :---: |
|  | 4 | ELEC 3212 | 4 |
|  | 3 | ELEC 3221 | 3 |
|  |  | ELEC 4211 | 3 |
|  | 6 | H \& S Elective (See Note 2) | 3 |
|  | 17 |  | 16 |

## SENIOR YEAR

| 4201, 4203 | 4 | ELEC 4231 <br> Elec. Engr. Elective <br> (See Note 4) | 3 |
| :--- | :---: | :--- | :---: |
| 4212, <br> Engr. Elective <br> ee Note 4) | 4 | Technical Elective <br> (See Note 3) | 6 |
| Selective Note 2) |  |  |  |

(E 2: A 6 or 9 hour sequence terminating at the b. 4000 level in humanities or social science is re Lad. Of the total courses taken 9 semester hours It be humanities and 6 semester hours must be soieciences from an approved list.
(E 3: Upper division course in engineering, mathelics, physics, advisor's approval required
IC 4: Upper division courses in electrical engineerusuch as: ELEC 4202, 4213, 4221, 4222, 4240, 2), 4251, 4261, 4270, 4271, 4991-4992.

## LCTRICAL ENGINEERING

$h$ tajor: 42 semester hours of electrical engineering courses iuding ELEC 3201, 3202, $3211,3212,3213,3221,4201$, 43, 4211, 4212 and 4231. The remaining semester hours clectrical engineering courses may be elected from one of $t$ following areas of concentration. The program also incies 7 semester hours of technical electives which stuots may utilize to broaden their base of knowledge.
a iolid State Electronics: ELEC 3222, 4221, 4222, 4240 and 4241.
nergy Conversion: ELEC 3222, 4202 and 4205.
Control Systems: ELEC 3220, 4215, 4216, 4251 and 4261.
d omputer Science: ELEC 3220, 4215, 4222, 4230, 4232, and 4270.
e licrowave and Antenna Systems: ELEC 4213, 4230 and 232.

10 Projects I or II, ELEC 4991 or 4992 can be taken for 3
ter 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 | 3 | ELEC 3211 | 3 |
| :--- | ---: | :--- | ---: |
| MECH 3331 | 4 | MECH 3312 | 3 |
| MECH 3321 | 3 | MECH 3323 | 3 |
| MECH 3322 | 4 | MECH 3361 | 4 |
| CIVL 3141 | 3 | MECH 3341 | 3 |
|  | $\overline{17}$ |  | 16 |

## SENIOR YEAR

| MECH 4311 | 3 | ELEC 4201 or |
| :---: | :---: | :---: |
| MECH 4322 | 2 | MECH 4312 |
| MECH 4344 | 3 | MECH 4323 |
| MECH ENGR ELEC (See Note 4) | 3 | MECH ENGR ELEC (See Note 4) |
| TECHNICAL ELEC |  | TECHNICAL ELEC |
| (See Note 3) | 3 | (See Note 3) |
| H \& S ELEC |  | H \& S ELEC |
| (See Note 2) | 3 | (See Note 2) |
|  |  |  |
|  | 17 |  |

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, mathe matics, physics, etc., in support of concentration area. Advisor's approval required.
NOTE 4: A 6 upper-division semester hour concentra. tion in mechanical engineering courses to gain depth in such areas as Energy Systems, Fluid Power Sys tems, 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 Sci ence in Mechanical Engineering a student may choose one of the following concentration areas:
a. Design and Manufacturing:

MECH 4361, 4381, 4382; 3 semester hours engineering or math elective.
b. Energy Systems ( 4 of the following courses): MECH 4313, 4315, 4316, 4317, 4351
c. Mechanical Systems

MECH 4325, 4334, 4371; 3 semester hours engineering or math elective.
d. Fluid Power Systems

MECH 4309, 4310, 4331, 4333.

## 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 follow:

## 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 $2111,2112$.
Non Technical electives: 30 hours which include:
(a) Social Sciences: courses offered by the departments o sociology, anthropology, economics, geography (other than physical), history, political science and psychology.
(b) Humanites: courses offered by the departments of art English, foreign languages, music, philosophy, and corm munication and fine arts.
These non technical 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
(3) 12 semester hours in any combination of upper division work in either of the fields (1) or (2).
Electives to bring the total to 132 hours. Electives are to be chosen only with the consent of the advisor.
The Minor: 18 semester hours in geology courses, including GEOL 1201.

## 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 Manufacturing Technology program can be completed as outlined on the following pages but also can be completed with an emphasis on Forest Products Technology, Production Management, Supervision, Drafting and Design, or Industrial Safety upon consent of an advisor. The Department of Engineering Technology also offers a major in Trade and Industrial VocationalTechnical 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.

## Construction Technology

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

| JUNIOR YEAR |  |  |  |
| :--- | ---: | :--- | ---: |
|  |  |  |  |
| HIST 2601 | 3 | HIST 2602 | 3 |
| TECH 3400 | 3 | FIR 3310 | 3 |
| TECH 3411 | 3 | TECH 3401 | 3 |
| TECH 3387 | 3 | TECH 3532 | 3 |
| TECH 3531 | 3 | Elective (General) | 6 |
| TECH 3491 | 3 |  |  |
|  | $\boxed{18}$ |  | 18 |


| SENIOR YEAR |  |  |  |
| :--- | :---: | :--- | ---: |
| TECH 3412 | 3 | TECH 3472 | 3 |
| TECH 3414 | 3 | TECH 4520 | 3 |
| TECH 3471 | 3 | TECH 4510 | 3 |
| Elective (Technical) | 3 | MGMT 4420 | 3 |
| TECH 3440 | 3 | Elective (Technical) | 3 |
|  | $\boxed{15}$ |  | 15 |

## 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 |  |  |  |
| :---: | :---: | :---: | :---: |
| HIST 2601 | 3 | HIST 2602 | 3 |
| TECH 3440 | 3 | TECH 2431 | 3 |
| TECH 1451 | 3 | TECH 3822 | 4 |
| TECH 3811 | 3 | TECH 4801 | 4 |
| TECH 3821 | 3 | TECH 4832 | 3 |
| TECH 4831 | 3 |  |  |
|  |  |  |  |
|  | 18 |  | 17 |
| SENIOR YEAR |  |  |  |
| TECH 3411 | 3 | TECH 4381 | 3 |
| TECH 3841 | 3 | TECH 4811 | 3 |
| TECH 4821 | 4 | TECH 4841 | 3 |
| TECH 4834 | 4 | TECH (Elective) | 3 |
| Elective (General) | 3 | Elective (General) | 3 |
|  |  |  |  |
|  | 17 |  | 15 |

## Manufacturing Technology

This area of study is designed for students interested in directing men, materials, and machines to efficient production in a manufacturing establishment. The five areas of concentration provided under the Manufacturing Technology p:ogram are: Production Management, Forest Products, Industrial Safety, Drafting and Design, and Supervision. Areas of oppor-
tunity for a student having a backgrol in Manufacturing Technology include f duction management and supervision positions in specialized staff groups st as Industrial Engineering, Manufactur Engineering, Quality Assurance, Proc Engineering, or Safety Engineering.

JUNIOR YEAR


Supervision Concentration take TECH 3401, 4468, 4944; MGMT 3110, 3710, 4220, 4420 or PSYC 3301
*Production Management concentration take TECH $3401,3410,3505,3422,4591,4571,4468,4944$.
${ }^{*}$ Drafting and Design concentration take TECH 2512, 3471, 3505, 3573, 4571, 4591, 4944.
*Industrial Safety concentration take BIOL 1631; TECH 3921, 3931, 4470, 4951, 4952, 4961.
*Forest Products concentration take TECH 2651, 3611, 3631, 3931, 4944, 4661; MGMT 3110.

## Computer Systems Technology

This area of study is designed to pare for positions that require a kn edge of programming and the applica of computers in various industries. E tives may be selected to provide a str background in one or more areas of stt

FRESHMAN YEAR

| ENGL 1101 | 3 | ENGL 1102 |
| :---: | :---: | :---: |
| MATH 1213 | 3 | MATH 1321 |
| TECH 1010 | 3 | TECH 1811 |
| TECH 1411 |  | TECH 2251 |
| TECH 1511 | 3 | $\dagger$ PHED Activity |
| TECH 1611 or |  | $\begin{gathered} \text { or } \\ \dagger \text { ROTC } \end{gathered}$ |
| TECH 1711 | 3 |  |
| $\dagger$ PHED Activity | 2 |  |
| $\begin{aligned} & \text { or } \\ & \dagger \text { ROTC } \end{aligned}$ | (1) |  |
|  | 17-18 |  |



SOPHOMORE YEAR

| ENGL 210 | 3 | ENGL 210. |
| :---: | :---: | :---: |
| PHYS 2111 | 4 | PHYS 2112 |
| TECH 2944 | 4 | CHEM 1051 |
| COMM 1311 | 3 | ELEC 3220 |
| TECH 2431 | 3 | MATH 4765 |
| $\dagger$ PHED Activity | 2 | $\dagger$ PHED Activity |
| $\begin{gathered} \text { or } \\ \dagger \text { ROTC } \end{gathered}$ | (1) | $\begin{gathered} \text { or } \\ \dagger \text { ROTC } \end{gathered}$ |
|  | $18 . \overline{19}$ |  |


| TECH 3471 | 3 | TECH 4520 | 3 |
| :--- | :---: | :--- | ---: |
| TECH 3520 | 4 | TECH 4515 | 4 |
| TECH 3411 | 3 | TECH 4944 | 3 |
| TECH 4530 | 3 | TECH 3472 | 3 |
| Elective (Tech) | 3 | Elective (Gen) | 3 |
|  | $\frac{16}{}$ |  | 16 |


| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| ST 2601 | 3 | HIST 2602 | 3 |
| CH 4462 | 3 | TECH 3422 |  |
| CH 4831 | 4 | or |  |
| CH 4251 | 4 | TECH 3350 | 3 |
| ctive |  | TECH 3271 | 4 |
| General) | 3 | TECH 4381 | 3 |
|  |  | ```Technical Elective (TECH 4832 or programming)``` | 3 |
|  | 17 |  | 16 |

SENIOR YEAR

|  |  |  |  |
| :--- | :--- | :--- | ---: |
| CH 4261 | 4 | TECH 4271 | 4 |
| CH 4834 | 4 | TECH 4835 | 4 |
| TH 4711 | 3 | TECH 4944 | 3 |
| CH 4472 | 3 | MGMT 4420 | 3 |
| ctive (Technical) | 3 | Elective (General) | 3 |
|  | $\overline{17}$ |  | 17 |

## Trade and Industrial VocationalTechnical Education

## (Bachelor of Science

 in Technology)This major is designed for students nnning a teaching career in Trade and IJustrial Education, Technical Education d Industrial Arts Education. Emphasis en be placed on either the secondary or te post secondary school program. The sident may major in Trade and Industrial Icational-Technical Education with a eneral concentration or with a concentratin in Industrial Arts. Specific requirents are as follows:

FRESHMAN YEAR
$\left.\begin{array}{lrcr}\hline \text { GL 1101 } & 3 & \text { ENGL 1102 } & 3 \\ \text { TH 1211 } & 3 & \text { HLTH 1102 } & 3 \\ \text { Yote 1) } & 3 & \text { COMM 1311 } & 3 \\ \text { ED 1011 } & 3 & \text { Occup. Spec. } & 3 \\ \text { (Note 2) } \\ \text { lote 2) }\end{array}\right)$
${ }^{*}$ 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:

1. MATH 1213.
2. TECH 1511, 1711
3. CHEM 1051; PHYS 1111, 1112.

SOPHOMORE YEAR

| ENGL 21.. | 3 | ENGL 21.. | 3 |
| :--- | ---: | :---: | ---: |
| HIST 2601 | 3 | HIST 2602 | 3 |
| PSYC 1101 <br> Occup. Spec. <br> (Note 2) | 3 | SPER 2000 <br> VTED 4110 <br> (Note 2) | 3 |
| Science lab <br> (Note 3) | 3 | (Nccup. Spec. | 3 |
| TECH 2431 <br> (Note 2) | 3.4 | (Note 2) <br> EDPS 3121 <br> (Note 4) | 3 |
|  | 18.19 |  | 3 |

*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 | 3 | Elective | 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.

SENIOR YEAR

| *Occu. Spec. | 3 | VTED 4611 | 3 |
| :--- | ---: | :--- | ---: |
| VTED 4220 | 3 | VTED 4841 | 9 |
| Electives | 3.9 | or |  |
|  |  | VTED 3301 | 3 |
|  |  | Electives | $3-9$ |
|  | $9 . \overline{15}$ |  | $\overline{15}$ |

*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 |
| EDFD 2111 | 3 | EDRS 3121 |
| VTED 4120 | 3 | EDPS 4112 |
|  |  | *ART 2221 |

* 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 |  |  |
|  | $\mathbf{1 5}$ |  | 15 |

## The Minors

These minors may be selected by students who have majors other than any of the Engineering Technology majors.
SAFETY:
TECH 3386, 3387, 3921, 3931, 4470, 4951, 4952, 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

Room G-1, Johnson Hall

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| ACADEMIC PROGRAMS |  |  |  |
| Department | Major | Concentration Within Major | Degree Offered; |
| - | Individual Studies | ** | Bachelor of Liberal Studies (B.L.S.). Bachelor of Professional Studies (B.P.S.) |

[^3]
## PURPOSE

The University College offers nontradinal degrees for those students whose perience, talents, and interests are best rved through a program which emphaes personally designed education. rough the University College, faculty, udents, and off-campus professionals ve the opportunity to work together unstricted by departmental or college undaries. The college provides individu$y$ designed programs for persons whose reer goals, academic needs and interts are not met by existing majors, but by propriate combination of integrative indisciplinary courses offered by the Unirsity College, existing courses offered other colleges, credit by examination, edit for non-traditional learning, and innship experiences. For faculty across \& University, the University College prodes the structure to explore and develop erdisciplinary ventures that may later subsumed into other degree-granting its. The college seeks to create and intain a spirit of academic community rough careful and concerned advising, d interaction outside the classroom fong students, faculty, and staff. The chelor of Liberal Studies and Bachelor Professional Studies degree programs \& complementary to the University's role meeting the academic needs of a div. es population in an urban setting.

## ORGANIZATION

The University College both depends lon and contributes to existing procams at the University through creative is of existing faculty and programs to sisfy legitimate degree program needs nich are not currently met. The college is no permanent or full-time faculty of its in; it draws instead on the faculty of er colleges of the University for in; jctors and advisors. These faculty imbers serve on a short-term basis sile maintaining primary affiliation with hir own departments. The knowledge a) experience of the faculty from several Iciplines enables the University College ioffer truly interdisciplinary courses and $\exists$ roader base for effectively advising stuJits. At the same time, faculty serving I University College gain new perspecies and associations which they may zatribute to their own colleges.
The Faculty Council is composed of vive faculty members from the other i: colleges of the University. The Council sointly responsible with the Dean of the Jversity College in establishing requirernts for the selection of the faculty, deenining admissions, curriculum and deje requirements, and approving group ctract degrees designed for students wh similar program needs. In addition, H Council gives advice and counsel to $t$ dean. The students of the University lege also serve an advisory role to the "culty 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.

A letter 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 upperdivision hours of their Coordinated Study Program. Examples of Coordinated Study Program areas follow:

## B.P.S.

Aviation Administration
Commercial Music
Human Services
Health Care Education
Political Communications
Nuclear Industrial Operations
Fire Science Administration
Services for the Aging

## B.L.S.

Language and Mind
Black Studies
Cross-Cultural Comparison of Art
Humanities
Fine Arts in Promotion
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 Core courses: ENGL
2361 or POLS 4407.
(b) Electives 1 ANTH 3422; CJUS 4531; MUHL 2101; POLS 4212; SOCl 3401, 3422, 4420; СОMM 3373, 4373, 42375, THEA 3461.

## 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 a faculty advisory committee. Advising guidelines are 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

Women in American Society (or as previously listed, UNIV 3502)
History of Women in America
B. Additional Courses. Select 9 hours:

SOCI $3432 \quad$ Sociology of Sex Roles
$\begin{array}{ll}\text { SOCI } 3831 & \text { Marriage and the Family } \\ \text { ECON } 4910 & \text { Women and Work }\end{array}$
UNIV 4380
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 nature, by which the student dem strates in a sustained manner compreh sion and command of the complex sk and understanding encompassed in degree program. The Special Project $c$ ries 9 semester hours credit.

## Degree Requirements

## LIBERAL STUDIES

UNIV 1010 Communication I
UNIV 1020 Communication II
UNIV $1210 \quad$ Humanities
UNIV $1410 \quad$ Social Science
UNIV $1610 \quad$ Natural Science
UNIV $1810 \quad$ Natural Science
MATH 1181 or PHIL 1611
(or another mathematics course
at the same level or above)
For both BLS and BPS degrees:
THEMATIC STUDIES
UNIV $3500 \cdot 3599$
(See note above)
for the BPS degree:
for the BLS degree:
individual studies
includes:
Coordinated Study Program,
upper division hours
UNIV 4996 Special Project
for the BPS degree:
for the BLS degree:

## EVALUATION

All members of the Contract/Advis Committee evaluate the student's 1 formance, recognizing that each stuc enrolled in the University College $n$ meet all University credit-hour and ( requirements. The following methods used to evaluate a student's performar the traditional grading systems, Pass/ and Credit/No Credit options sup mented by written narrative evaluatic credit or placement by examination, vanced Placement examinations for gree credit where these are available, credit for validated learning from exp ence or non-traditional instruction.


## Independent Departments and Programs

JOHN R. DILL, B.S., M.A., Ph.D.

Associate Vice President for Academic Affairs

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## ACADEMIC 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 | †Latin American Studies Internatıonal 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.) <br> Bachelor of Arts (B.A.) |
|  | African Studies |  | Certificate |

[^4]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 Studie's (AFROTC), International Studies, 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 Univer-
sity 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 3308, 3309; INST 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
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 dis plines to bear upon a focal point of hume relationships and problems which cro national and cultural boundaries. The pr gram is designed to serve the student wt seeks knowledge of tbe range of conter porary and possible future problen which confront international society ar understanding of alternative national ar cultural perspectives on solutions to tho: problems. The program also serves tt needs of students planning a career in th Foreign Service or related agencies of tt federal government and students prepa ing for employment abroad in the priva sector, or in international organization private or public.

International Relations is offered as major only. The program emphasis is the course work in history, political st ence, economics, and geography, wi contributions from other social scien disciplines. Within the program the st dent is required to concentrate a part his work in the field of American foreic policy or in one of six areas of the worl Students are encouraged to pursue tl study of a foreign language and to se opportunities for travel and study abroa The student's program should be planne in consultation with the International Rel tions advisor. Course requirements a listed below. The International Relatio advisor is David G. Hoovler, Departme of Political Science.

## INTERNATIONAL RELATIONS

The Major: 30 semester hours, including ECON 4340, 43 POLS 2501, 4501, 4508, and 3505 or 4504; INTL 46 ! and three courses, in at least two disciplines, from ond and three courses, in atlowing areas of concentration:
(a) American Foreign Policy; ECON 3508; GEOG 44 HIST 3802, 4811; POLS 2301, 3506, 4302, 4506; ther POLS 3505 or 4504 .
(b) Western Europe: GEOG 4304; HIST 3200, 4145, 44 4462, 4502; POLS 3302, 4507
(c) Latin American: ANTH 3930 or SOCI 3930; GE 4324, 4325; HIST 3212, 4230, 4240, 4250; P( 3306, 4306, 4503
(d) Asia: GEOG 4306; HIST 3291, 4292, 4294, 42 POLS 4305, 3307, 4307
(e) Soviet Union: GEOG 4305; HIST 4162, 4163; P( 4305, 4502, 4505.
(f) Sub Saharan Africa: ANTH 3242; HIST 4281, 42 4284; POLS 3308.
(g) Middle East and North Africa: HIST 4282, 4284; Pl 3309.

NOTE: The student electing the major in International $R$ tions is advised to take the following courses to insure $t$ he has an adequate background for the required course the major: ECON 1010, 2110; GEOG 2301, 2311; H the major: E
$1301,1302$.

## Latin American Studies

The Latin American Studies program fers an interdisciplinary approach to t study of Spanish and Portuguese Am ica. It is designed primarily to serve $t$ needs of students who are planning a $i$ reer in Latin America or who will work w public or private institutions in capacit that require a broadly based knowled and understanding of Latin America. It also structured to meet the needs of $s$ dents who wish to prepare for gradu: study in programs permitting a La American concentration, either within traditional discipline or in an advanced terdisciplinary program. This program centered on the Spanish and Portugue languages and Latin American geograp history, literature, and politics. Approp ate courses in anthropology, art, econo
, and sociology are also included in the jgram.
The student may elect Latin American idies as a major or minor. It is strongly :ommended, but not required, that the ident electing to major in this interdiscinary field satisfy requirements for a coleral major in one of the traditional discines represented in the program. The ident is advised that proficir.ncy in spo1 Spanish and Portuguese is very desire for those contemplating a career in in America and to participate in Memis State University study-abroad proms in that area. The student's prom should be planned in consultation $h$ the Latin American Studies advisor. urse requirements are listed below. The in American advisor is John A. Sobol, partment of Geography.

## IIN AMERICAN STUDIES

re 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; INTL 4201; POLS 3306: SPAN 3511 or 3512.
(b) Elective Courses: ANTH 3232, 3332; ART 4162, 4163;

ECON 3580; HIST 3200 , $3231,4240,4250$;' POLS 4306, 4503; SOCI 3930; SPAN 4561, 4562.
NOTE: The student must have a reading knowledge of Spanish or Portuguese (to the proficiency level expected upon completion of the second year college course) to sat. isty the requirements of the major. It is recommended that he obtain a collateral major in one of the traditional disciolines represented in the program.
e Minor: 12 semester hours, including GEOG 4324 or 4325; HIST 3211, 3212: POLS 3306.
TE: The foreign language requirement for the minor is the me as for the major.

## NURSING

GOFESSOR BONNIE WEAVER GRANT, Chairman<br>foom 316, Manning Hall

## Purposes

he function of the Department of Nursis to provide a broadly based educanecessary for the first professional ree in nursing. A significant character: of the department is that it provides a que educational opportunity for Regisd Nurses having associate degrees or omas in nursing to broaden their caopportunities and goals. The program eloped in response to educational ds for professional and personal wth voiced by the nursing community he West Tennessee area. While the edtional program concentrates on nursit also provides a broad educational e. Over fifty-five percent of the course k is taken in academic disciplines such he natural and physical sciences, the hanities, and the social sciences.
he faculty of the department represent major areas of nursing practice and a aety of experience and interests. They ect this diversity in their teaching pracand research and as facilitators for dents preparing as professionals. At professional level, the nurses' role is ened as providing within the health system as comprehensive service of sssing, promoting, and maintaining elth of individuals and groups. They tice 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 Department of Nursing is a center of humanistic nursing in that 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. Application for admission to the B.S.N. program is made annually directly to the Department of Nursing by April 15 for admission to the following Fall semester class. In the event there are more applications than spaces available, selection will be made on the basis of rank order as determined by grade point average and by weighing other factors if necessary.

Transcript evaluation of transfer credits is made on request of the student at the University Admissions Office. Applicants need to seek academic advisement for selection and sequence of lower division course requirements from the University Academic Counseling Unit. Upon acceptance to the B.S.N. program, the student is assigned to a nursing faculty member for academic advisement while completing the upper division degree requirements.

Requirements for admission to 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 the following required prerequisites.

English: ENG 1101, 1102 (with minimum grade of C) and two of the following: 2101, $2102,2103,2104,2105,2106$.
History: HIST 2601, 2602.
Science: BIOL 1731, 1732, 1400 (with minimum grade of $C$ and within last fifteen years); CHEM 1051, 1052 (with minimum grade of C and within last fifteen years).
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, mu sic, philosophy, or theatre and communication arts.
Behavioral Science: 9 semester hours developmental psychology or human growth and development are crucial to program and must show on transcript (recommended courses include EDPS 2111, PSYC 1101).

## 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 136 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, 3200, 4000, 4100, 4200.
Research/Statistics: EDRS 4542, 4542.
Social science: 3 semester hours (ANTH 1200 or SOCI 1111 recommended)
Elective: 3 semester hours.
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.

Before entering the B.S.N. program, students typically practice nursing at least one year. The time between completing the lower division nursing program and entering the B.S.N. program varies considerably so that each applicant's transcript is evaluated individually according to University transfer credit policies.

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

## JUNIOR YEAR

| *NURS 3000 | (3) | *BIOL 3440 | (4) |
| :---: | :---: | :---: | :---: |
| *NURS 3002 | (3) | NURS 3200 | (6) |
| NURS 3101 | (3) | Social Science |  |
| NURS 3102 | (3) | ELECTIVE | (3) |
|  | 12 |  | 13 |

## SENIOR YEAR

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

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

## URBAN STUDIES

ASSISTANT PROFESSOR STANLEY E. HYLAND, Coordinator
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 consequences of urban problems provides an excellent background for urban careers in organizations such as community action agencies, urban social service agencies, health planning agencies, and local and county government.

The Urban Studies program is offered through the cooperation of the departments of Anthropology, Economics, Geography, History, Political Science, and Sociology and Social Work. The above departments as well as other participating departments such as Management, Civil Engineering, Criminal Justice, and Theatre and Communication Arts provide the Urban Studies student with the opportunity for personal faculty advising in his area of interest as well as involvement in the faculty member's ongoing research projects in the surrounding area.

The student may elect Urban Studies as a major or minor. It is recommended, but not required, that the students majoring in Urban Studies choose a collateral major in one of the traditional disciplines represented in the program. The requirements for the major are listed below.

The Urban Studies major leads to a B.A. degree which is awarded through the College of Arts and Sciences. Degree requirements for the B.A. are listed with the program descriptions for the College of Arts and Sciences earlier in this section. The student's program should be planned in consultation with the Urban Studies Coordinator, Dr. S. Hyland.

## 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 Siudies Seminar 4001 and at least one three hour course from the ollowing list of social science methods courses: ANTH 3225, GEOG 4531, POLS 3100, or SOCl 3322. A second course may be applied to the urban studies major if the student wishes.
2. four courses from the following core:

ANTH 4411, ECON 4510. GEOG 4431, HIST 3871 POLS 3224, SOCI 4630,
3. five courses from the following electives: ANTH 4410, 4752; ECON 3210, 3810, 3811, 4750;

EDFD 4032; GEOG 3451, 4201, 4442; HIST 4881; POLS 4224; SOCI $3610,4620,4812$
4. Three hours of approved internships from the following course numbers:
URBN 4995, SOCI 4912, POLS 4230 or 4231, ANTH 4985 or GEOG 4700 can count toward the Urban Studies elective hours.
The Minor: 18 semester hours including URBN 4001 and 5 others listed above (in core or in elective sets).

AEROSPACE STUDIES<br>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 foundations in developing upperclassmen who are to become Air Force officers and serve on active duty upon graduation and commissioning. Students may apply for the twoyear or four-year program, or they may enroll one year prior to applying for the two-year program.

Instruction in Aerospace Studies has been an important phase of the curriculum at Memphis State University since 1951. Active duty Air Force personnel, approved by the University President, are detailed by the Department of the Air Force to administer the instructional program. Air Force officers serve under appointment by the University as Professor or Assistant Professor of Aerospace Studies.

## The General Military Course

The two-year (4 semesters) General Military Course consists of one hour a week of classroom instruction and one hour a week in Leadership Laboratory. Textbooks are furnished by the Air Force without charge. Air Force uniforms are furnished and must be properly worn and kept in good condition. A uniform deposit is required for all cadets at the time of registration. Cadets who successfully complete the General Military Course may apply for admission to the Professional Officer Course.

## The Professional Officer Course

The Professional Officer Course provides instruction and systematic training to selected eligible students who desire to qualify as officers in the United States Air Force while pursuing their academic studies at the University. Successful completion of the requirements for the Professional Officer Course and for a baccalaureate degree leads to a commission in the United States Air Force as a Second Lieutenant. To be eligible for selection to the Professional Officer Course, a student must have at least two years remaining at the University (undergraduate, graduate, or a combination). Final selection is based on academic standing, lead-
ership potential, percentile score on Air Force Officer Qualifying Test, a physical qualifications. Senior male cad who are enrolled in the pilot category engage in a flying program consisting 25 hours of flight instruction and 3 mester hours of Elementary Aeronaut (ROTC 4413). All members of the Prof sional Officer Course receive a sub: tence allowance of $\$ 100.00$ per moi and are issued uniforms provided by Air Force.

## The Two-year Program

All students who meet qualifying cr ria, may apply for selection to the Prof sional Officer Course under the Two- $Y_{i}$ Program if they are not in the Four-Yi Program. Processing of applications the Professional Officer Course begins the Fall of each year. Application may submitted through May 31. If select the student will attend a six-week fi training program during the summer pt to entry into the Professional Offi Course. Graduates of the six-week fi training are enrolled in the Professio Officer Course with the same status as dets in the four-year program.

## Leadership Laboratory

This lab is designed around a mic cosm of the U.S. Air Force. It gives the dets the opportunity to develop th leadership potential while allowing : staff to make evaluations based on act managerial situations.

## Air Force Rotc College Scholarship Program

Full scholarships which pay full tuit and fees, full book allowance, transpol tion to Memphis, and a tax free sub tence allowance of $\$ 100.00$ per month. available to entering freshmen and L versity students who are competitive a demically and will enroll in the Air Fo ROTC program. Details concerning qua cations and applications can be obtair from the Department of Aerospace St ies (See Chapter 4, Scholarships). NO Several loan funds are also available students enrolled in AFROTC. For more formation, contact the department staf1

## Field Training

Four-year cadets enrolled in the Prot sional Officer Course will attend a fc weeks field training program at an . Force Base during the summer betw their sophomore and junior years. Cac who register for ROTC 3211 (Four-W Field Training), prior to attending f training, will receive an academic $\mathrm{gr}^{\prime}$ with four hours academic credit. Stude applying for the Professional Offi Course Two-Year Program will atten six-weeks field training program at an Force Base prior to entering the Pro sional Officer Course as a cadet. Stude who register for ROTC 3212 (Six-We Field Training), prior to attending $f$ training, will receive an academic gr and six hours academic credit.

## Minor in Aerospace Studies

Upon successful completion of 18 senester hours in Aerospace Studies, a caet may apply for a minor in Aerospace tudies.

## Special Student Program

This is availabe to all students who have ot previously enrolled in an ROTC course the University. AFROTC scholarship repients are not eligible. This program aplies to a student's first semester in any MC course. The special student does not ay the uniform deposit, does not have to heet strict Air Force hair standards, does ot wear the uniform. Full credit is reeived for the course.

## UNIVERSITY HONORS PROGRAM

PROFESSOR JOSEPH R. RILEY, Director
Room 130, Old Brister Library

## What the Honors Program Is

The Honors Program has been created provide exceptional educational oppornities for exceptionally able students. It expressly intended to nurture the highly otivated, independent individual who eks a stimulating environment approprie to his unusual potential. The program fers a series of specially designed hons sections and courses, from which stuents may chose those courses which best it their own interests and needs. In oror to graduate with honors, a student ust complete successfully a minimum of 3 semester hours of honors work, at ast 12 hours of which must be uppervision (junior and senior level). Depend-
ing 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 seminar-conference room and an honors lounge, open to all students who are active in the Honors Pro. gram.

## 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) or fewer (at least 6 hours of lower-division honors credit are required, however, 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 interdisciplinary in nature and vary from semester to semester. An honors thesis or project may be substituted for one of these courses. Descriptions of college and departmental programs are available in the appropriate college or department, or in the office of the University Honors Program.

## Requirements and Standards

During the freshman and sophomore years the honors participant must maintain an overall QPA of at least 3.0 to remain in good standing in the program; the minimum QPA for continuing at the junior and senior levels is 3.25 . There is provision for a one-semester probationary period before a participant is discontinued. A minimum grade of $B$ is required in each honors course in order for it to count toward fulfilling the honors course requirement, but regular credit for the course will be earned if the grade is lower than a B.


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The section which follows contains listing of all departments in the Univer: by the college in which they are loca and a description of all course offerin The official course title appears in bc face type following the course numt The figures in parentheses after the scription of a course denote the num of semester hours of credit for $t$ course. If the credit is variable, to be fis in consultation with the instructor, $t$ fact is indicated by the minimum maximum credit, as BIOL 4000 (2-4) another course number in parenthesis lows the credit hours, it is the forr number for the same course. Credit $n$ not be received for both the former nt ber and the current number of the sa course.

Courses are numbered according to following system:

> 1000-1999 Courses primarily for fre men

> 2000-2999 Courses primarily for sG omores

> 3000-3999 Courses primarily for, iors

> 4000-4999 Courses primarily seniors and for which gl uate credit is not offel (There is sometimes a responding 6000 num for which graduate cr is offered to graduate dents.)

Course numbers have no referenct the semester in which the courses taught

The numbers in brackets following course descriptions represent the HE taxonomy and mode of instruction.

The Schedule of Classes is publishe few weeks prior to the opening of each mester and The Summer Session. It tains a listing of the specific courses to offered, with the time, place, and inst tor in charge of each section. It also tains special announcements concerr registration procedures and cour which may have been added since publication of the Bulletin. Copies available in the office of the Assoc Dean of Admissions and Recc (Records).

## THE COLLEGE OF ARTS AND SCIENCES

## ANTHROPOLOGY

ASSOCIATE PROFESSOR<br>THOMAS W. COLLINS, Chairman

Room 122, Clement Humanities Building

## E010 ANTHROPOLOGY (ANTH)

0 . Man's Place in Nature. (3). Man's place in nature, hu origins, fossil record from archaeological excavations, bio cal aspects of race. [2201-1]
0. Man and Culture. (3). Origin and development of human ure. Social relations, language, government, religion and 11, and problems of developing nations or minonity groups iodern world [2201.1]
0. Introduction to Archaeology. (3). Description of archaeo cal evidence for development of human culture from its ear beginnings to rise of civilizations. Introduction to princi and methods of archaeology. [2203. 1]
0 . Urban Anthropology of Contemporary America. (3). iropological interpretation of diverse and changing life erns in American urban society. Attention to cross-cultural ysis of divergent settlement patterns, kinship ne
5. Indians of Tennessee and Adjacent Areas. (3). Archaeol and ethnology of Southeast; intensive study of various In cultures of Tennessee and bordering states. [2202.1]

1. Human Paleontology. (3). Hominid tossil record starting primate developments; human evolution; human osteol[2202.1]
0 . Peoples and Cultures of the World. (3). (Same as GEOG 0 ). Major ethnographic areas and selected cultures of the d. [2202-1]
2. Qualitative Methods of Field Research. (3). Various qual ve methods of anthropological research. Application in col ng life histories and writing ethnographic descriptions of emporary societies. [2202.8]
3. Ethnology of North America. (3). Description and distrion of aboriginal culture types of North America north of co: comparisons and interrelationships during pre and contact periods. [0313-1]
4. Ethnology of Latin America. (3). Description and distribuof peoples and cultures of South America and Mesoamer comparisons and interrelationships during pre- and post act periods. [0308-1]
5. Ethnology of Africa. (3). Description and distribution of les and cultures of Africa; comparisons and interionships during pre and post-contact periods. [0305-1]
6. Ethnology of Oceania. (3). Descriptior, of peoples and ures of Oceania (including Australia); comparisons and in-
elationships during pre and post contact periods. (0314.1] 1. Archaeological Field Techniques. (3). Experience in field vations; preparation of specimens, use of survey instruts, photographing and keeping archaeological records, making of smali ground areas. Hours individually a
ed. PREREQUISITE: permission of instructor [2203.8]
7. Archaeological Field Techniques. (3). Continuation of An pology 3321. PREREQUISITE: permission of instructor. [3.8]
Archaeology of North America. (3). Description and dis. tion of prehistoric cultural remains in North America north exico. Major regional sequences, extending from the earlividences of human occupation until historic times. 3.1]
8. Archaeology of Latin America. (3). Description and distrion of prehistoric cultural remains in South America and Menerica, with emphasis on Mexico and Peru. [2203-1]
9. Archaeology of Africa. (3). Description and distribution chaeological remains in Africa; major regıonal sequences, nding from earliest evidences of human occupation until ric tumes. Emphasis on cultural achievements of preal Africa. [2203-1]
Archaeology of Europe. (3). Development of the various bpean civilizations and their influence and interpoan civilizations and their influence and inter$10 n$
3.11
3
10. Archaeology of Asia. (3). Description and distribution of istoric cultural remains in Asia; major regional sequences, earliest evidences of human occupation until historic [2203-1]
11. Social and Ethnic Minorities. (3). (Same as SOCI 3422). Cal and ethnic minorities in United States and elsewhere; to in differences in cultural backgrounds, social relationships llarger society; social, educational, and legal problems; faccontributing to satisfactory and unsatisfactory adjustments
Inorities. [2202.1]
. Linguistic Anthropology. (3). Nature and usefulness of yols, mechanisms by which they are communicated, rela-年iques used to reconstruct prehistoric languages. [2202.1]
12. Mexican Society 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. subcul. tural 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 thinking and theories of 19 th and early 20 th 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, facial 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 Religion. (3). Comparative analysis of religious systems and their functional relationships to
other cultural institutions; inter-relations of myth, magic, and other cultural institutions; inter-relations of myth, magic, and
ritual; types of religious institutions and religious practitioners. ritual: typ
4254-6254. Cultural Change. (3). Internal and external factors causing change; role of varoous change agents; cultural changes associated with urbanization, industrialization and modernization; theories of cultural evolution. [2202. 1]
4255-6255. Political Anthropology. (3). Comparative analysis of political systems and their functional relationships to oth of cultural institutions; formation and segmentation of political structures; requisites of leadership and political control. [2202.1]
4311.6311. Archaeological Theory and Method. (3). History of archaeology and development of conceptual framework for archaeological data collection and interpretation; current theories and methods including the use of allied specialists. [2202-1]
4321-6321. Archaeological Field Control. (3). Methods of dealing with archaeological field problems, individual instruction in ing with archaeological tield problems, individual instruction in historic archaeological data. [2203.8]
4325.6325. Archaeological Field Techniques and Restoration. (3). Individual instruction in dealing with archaeslogical field problems and methods of modern conservation and restoration techniques. PREREQUISITE: permission of the instructor. [2203-8]
4351-6351. Evolution of Civilization. (3). Comparative invest1gation of origins of civilization in Old and New Worlds. Develop. ment 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 contributions of archaeologists to historical research. Methods and techniques of archaeologists as required and modified by excavation and interpretation of historic materials. Allied specialities unique to Historic Archaeology including documentary investi gations and conservation and restoration of existing structures.

4380-6380. Museology. (3). (Same as ART 4380). History and development of museums; mandate and variety of institutions; significant research facilities; historical and contemporary collections, and the educational roles of museums in contemporary society. [2299-1]
4381-6381. Archaeological Laboratory and Research Techniques. (3). Coverage of basic archaeological laboratory and research techniques, including processing, cataloguing, stor age of specimens, and analysis of small body of archaeological data on individual basis. PREREQUISITE: permission of instructor. [2203.8]
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]
4410-6410. Complex Societies. (3). Folk society, peasant society, and pre industrial state. Community studies. Anthropologictyl studies of social institutions and groupings in industrial set tings. [2202. 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 devel opments in cross-cultural per spective. Urban kınship and social organization. Urban community development. Urban research techniques. [2214.1]
4420-6420. American Folklore. (3). Selected genres of American folklore, including folk religion and belief, folk medicine, folksong and music, narrative and humor (jokes and riddles). Comparisons to other cultures. Emphasis on role of folklore 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, of bio behavioral components of infectious, nutritional, qenetic, chronic and psychiatric diseases. Individual and cultural reactions to metical [129.1]
4521.6521. Folk Medicine in the U.S. (3). Medical alternatives standard health care system. Concepts of illness 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]
4541-6541. Nutritional Anthropology. (3). Human nutrition in cross cultural perspective. Basic nutritional requirements. Interrelations of dietary behavior with resource availability and with cultural attitudes regarding nutritive and health values for oods. Dietary aspects of acculturation and culture change Methodology in assessment of nutritional status and nutritional insufficiencies. Exemplary case studies. [0424.1]
4724-6724. Primitive Technology. (3). Anthropological survey of development of technology. Analysis of origins of primitive echniques, subsistence patterns, arts, crafts, machines, and tracing of their relationship to social organizations. Com parative examination of prehistoric and historic information [2202.1]
4751-6751. Culture and Personality. (3). Comparison of factors involved in analysis of personality as contrasted to culture; in teraction of these factors; problems of studying personality cross culturally. [2202-1]
4752-6752. Applied Anthropology. (3). Application of anthropo logical knowledge and techniques to contemporary problems in government, industry, public heatth, community development and urbanization. [2202.1]
4975. Directed Individual Readings. (1-4). Intensive guided survey of anthropological and related literature dealing with topics selected by advanced students and accepted by staff. Compila tion, synthesis, and evaluation of published data; preparation or students considering anthropology as a protession. PRE REQUISITE: permission of chairman and designated staff [2202.8]
4985. Directed Individual Research. (1-3). Intensive guided study of original data, in areas selected by advanced students and accepted by staff. Collection and/or processing of data in physical anthropology, ethnology, applied and urban anthropol. gy, archaeology, and linquistics; description, classification nalysis, and synthesis. Preparation for publication. PREREO UISITE: permission of chaırman and designated staff. [2202-8] 4995. Independent Study in Anthropology. (3). Investigation of contemporary issues in anthropology; experience with applica tion of anthropological principles in selected settings, e.g, in Greater Memphis area; may be offered in sections dealing with different topics. [2202-8]
Graduate courses in Anthropology: For detalls of the graduate program see The Bulletin of The Graduate School.

## BIOLOGY

## PROFESSOR CARL DEE BROWN, Chairman

## 2018, Life Science Building

## ADVANCED PLACEMENT

Beginning freshmen who have completed an advanced biology course in high school may apply to the chairman of the Depart ment of Biology, during the semester preceding enrollment, for advanced placement. A supplementary departmental test is re quired in most cases
NOTE: All departmental majors and minors are advised to take BIOL 2000 before any upper division biology courses.

E060 BIOLOGY (BIOL)
1001. Introduction to Biology. (3) Survey of biology; emphasis on animal kingdom; for non-science majors. Credit not acceptable for biology major or in related pre professional curricula. Credit not allowed for both BIOL 1001 and 1600. Two lecture, two laboratory hours per week. (0401-1)
1002. Introduction to Biology. (3). Continuation of BIOL 1001 , with emphasis on plant kingdom. Credit not acceptable for biol. ogy major or in pre-professional curricula. Credit not allowed for both BIOL 1002 and 1200. Two lecture, two taboratory hours per week. [0401.1]
1200. General Plant Biology. (4). Survey of plant kingdom; dis tribution, taxonomic relationships, morphology, physiology and economic importance of selected forms. Three lecture, three laboratory hours per week. [0402.1]
1400. Microbiology. (4). To meet requirements of student hurses and majors in Department of Health, Physical Education, and Recreation. Three lecture, two laboratory hours per week. [0411-1]
1600. General Animal Biology. (4). Survey of animal kingdom; distribution, taxonomic relatıonships, morphology, physiology, and economic importance of selected forms. Three lecture, three laboratory hours per week. [0407.1]
1631. Human Anatomy and Physiology. (3). Structure and function of human organism, primarily for majors in Department of laboratory hours per week. [0412.1]
1632. Human Anatomy and Physiology. (3). Continuation of BIOL 1631, primarily for majors in Department of Health, Phys ical Education, and Recreation. Two lecture, two laborator hours per week. PREREQUISITE: BIOL 1631 or equivalent. (0412.1)
1731. Anatomy and Physiology. (4). Detarled study of structure and functions of human organism. Three lecture, two labora tory hours per week. [0412.1]
1732. Anatomy and Physiology. (4). Continuation of BIOL 1731. Three lecture, two laboratory hours per week. PREREQ UISITE: BIOL 1731 or equivalent. [04 12.1]
2000. Fundamental Concepts of Biology. (3). Expansion and elaboration on basic biological concepts introduced in BIOL 1200 and 1600 . Includes cell structure, cell function, reproduc tion, genetics, evolution, and ecology. Both unifying and comparative in nature. Required of all majors in biology. PREREQ UISITES: BIOL 1200 and 1600 or equivalents and CO REQUISITE: CHEM 1112 or equivalent. (0401.1)
2001. Elements of Biology. (3). Basic concepts of animal and plant life. (For students in College of Education seeking certifiplant life. (For students in College of Education seeking certifi ments for degrees in other colleges of University.) Two lecture, two laboratory hours per week. 10401.11
2002. Natural History and Bio-Conservation. (3). Emphasis on plants and anımals in their environment, use of field work in teaching elementary science, and study of ecological principles related to bio conservation. (For students in College of Educa tion seeking certıficatıon in elementary educatıon; will not sat isfy science requirements for degrees in other colleges of Uni
versity.) Two lecture, two laboratory hours per week. PRE versity.) Two lecture, two labora
REOUISITE: BIOL. 2001 . [0401.1]
2232. General Horticulture. (3). Major aspects of horticulture with emphasis on growing ornamental plants, propagation, dis ease control, nutrition, pruning, soils and greenhouse manage ment. Two lecture, two laboratory hours per week. PREREQU [0108.1]
2780. Human Radiation Biology. (4). Biological effects of various types of radiation on human body and considerations nvolved in exposure control. (Limited to students enrolled in re actor technician program in Center for Nuclear Studies).
(0423.1]
3030. 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 laboratory hours per week. PREREOUISITE: 8 hours of anima biology or equivalent and COREQUISITE: CHEM 3311. (0410-1) 3050. General Ecology. (4). Plant and animal communities in elation to their environment. Two lecture, four laborator hours per week. (0420.1]
3070. Genetics. (4). Princıples of heredity, including laborator experiments in Drosophila breeding. Three lecture, three labo rafory hours per week. [0422.1]
3071. Human Genetics. (3). Genetıc principles as they apply to man, including pedigree analysis, genetic counseling, genetic REOUISITES: BIOL 1200, 1600 , and 2000 or permission of the instructor [0422.1]
3100. History of Biology. (3). Development of science of biol ogy, considering work of outstanding biologists and influence
of their contributions. PREREOUISITE: 16 semester hours in bIology or permission of instructor. (0401-1]
3170. 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 ml nor. (0422.1)
3220. General Plant Anatomy. (4). Comparative development and structure of roots, stems, and leaves in flowering plants Two lecture, four laboratory hours per week. [0412.1]
3221. Plant Morphology. (4). Comparative studies of genera structure of lower plants, through bryophytes. Two lecture, four laboratory hours per week. (04 12.1]
3222. Plant Morphology. (4). Continuation of BIOL 3221, con sidering vascular plants. Two lecfure, four laboratory hours per week. (0412.1)
3240. Field Botany. (4). Observation, classification, and mount ing of representative specimens of flowering plants in Memphis area. Two lecture, four laboratory hours per week. [0402.1]
3400. The Relation of Microorganisms to Man. (3). Nature and activities of mıcroorganısms as they affect welfare of man; pa-thogens-etiology and transmission of diseases, immunity, and other factors bearing upon health of individual and com 3400 and 3500 . Not acceptable as credif foward biology major or minor. [0417.1]
3440. Pathophysiology. (3). Effects of pathogenic organism upon human body and abnormalities in physiological processe occurring during disease. (Primarily for nursing students.)
10408.1 . 10408.11
3500. General Microbiology. (5). Fundamentals of bacteriofogy Three lecture, four laboratory hours per week. [0411.1]
3560. Applied Microbiology. (4). Introduction to microbiology of water, soil, air, food sewage, industrial processes, and patho gens. Two lecture, four laboratory hours
3600. Ornithology. (4). Habitats, migratıons, nesting habits, and classification of birds. Field trips for recognition of more common local birds organized as needed. Two lecture, four lab oratory hours per week. [0499.1]
3610. Vertebrate Embryology. (4). Development of selected vertebrate embryos from fertilized egg cell. Two lecture, four laboratory hours per week. (0427.1)
3620. Comparative Anatomy of Vertebrates. (5). Orıgin, devel opment, structure, and functions of organs and systems of se lected forms of vertebrates. Two lecture, six laboratory hours
per week. PREREQUISITE: BIOL. 2000 or permission of instruc per week. PRE
tor. 1041211
3965. Pest Control. (4). Recognitıon, life history, habits, and control of insect pests attacking stored grain, wood, fabrics, food products and animals. Includes some non-insect pests, such as noxious birds, rodents, and snakes. Two lecture, four
laboratory hours per week. PREREQUISITE: permission of in. laboratory hours per
structor. [0421.1]
3730. Human Physiology. (4). Normal functions of human body. Three lecture, two laboratory hours per week. [0410.1] 3800. Parasitology. (4). Distribution, morphology, life history, economic importance, and control of some of parasites of man fure, four laboratory hours per week (0408-1) 3840. 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 t
hours per week. (0407.1)
3900. General Entomology. (4). Introduction to insects with emphasis on morphology, physiology, development, behavior, and ecology. Three lecture, three laboratory hours per week. [0421.1]
3940. Systematic Entomology. (4). Classification of insects, in terpretation and use of keys, and preparation of a representative collection. Extended field trips to be arranged. Two lecture,
four laboratory hours per week. (0421.1] four laboratory hours per week. (0421-1)
3960. 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 laboratory hours per week. [0421.1]
4000. Problems in Biology. (2-4). Individual problems pursued by qualified students under supervision of member of biology faculty; emphasis on interest and proficiency in biological re-
search. $10401-81$ search. (0401-8)
4001-6001. General Toxicology. (4). Introductory study of
harmful actions of chemicals on biological mechanisms. Three harmful actions of chemicals on biological mechanisms. Three
lecture, two laboratory hours per week. PREREOUISITE: CHEM 3312 or consent of instructor. [0426-1]
4030. Cellular Fine Structure. (3). Ultrastructure 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.
BIOL 2000 or permission of instructor. (04 17-1]
4031-6031. Bioenergetics. (4). Diversity and unity of energet ics in living systems. Emphasis on evolutionary relationships of specific cellular components to different modes of bioenergetcs. PREREQUISITE: CHEM 3312 . 00415.1 ]
4050-6050. Field Technique in Ecology. (4). Field techniques of applied ecology covering practical training in forest, 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 per week. PREREQUISITE: one year of chemistry 10499 , hours
$4080 \cdot 6080$. Radiation Biology. (3). Origin and characteristics
of $10 n i z i n g$ radiations with detailed discussion of radiation efof $10 n i z i n g ~ r a d i a t i o n s ~ w i t h ~ d e t a i l e d ~ d i s c u s s i o n ~ o f ~ r a d i a t i o n ~ e f-~$
fects upon life processes from molecular to ecosystem level. fects upon life processes from molecular to ecosystem level.
Two lecture, two laboratory hours per week. PREREQUISITES: Two lecture, two laboratory hours per week
CHEM 3311 or 3312 ;B1OL 3070 . [0423.1]
4100-6100. Organic Development. (3). Theoretical and scien tific evidences concerning origin, development, and establish. ment of major groups of living and extinct animals and plants. [0401.1]
4130-6130. Cell and Molecular Biology. (4). Introduction to principles of molecular biology; of ultrastructure, intracellular metabolism, gene structure and function, and cell differentiation. Two lecture, four laboratory hours per week. PREREQUI.
SITES: BIOL 3070 and CHEM 3312 . $0416.1 /$
$4160 \cdot 6160$. Histological Techniques. (4). Methods of preparing plant and animal materials for microscopic study; theories of staining and preparation of permanent mounts. One lecture, six tor. [0413.1]
4225-6225. Mycology. (4). Basic life cycles, morphology and classification of fungi. Interaction of fungal organisms in enviREQUISITE: consent of instructor. [0499. 1]
4226-6226. Phycology. (4). Morphology and reproduction of al gae; emphasis on fresh water forms. Selected topics on algal genetics, algal physiology, and pollution. Two lecture, four laboratory hours per week. PREREQUISITE: consent of instructor
(0499. 1) [0499 1]
4232-6232. Plant Physiology. (4). Prınciples of physiology and application to living organism; emphasis on high
4240-6240. Plant Taxonomy. (4). Principles of plant taxonomy; special attention to classification of selected vascular plant fam.
ilies. Lectures, laboratory hours, and field trips. PREREQUI. ilies. Lectures, laboratory hours, and
4242. Woody Plants of the Mid.South. (3). Identification and classification of trees, shrubs and woody vines of Tennessee and adjacent Arkansas, western Kentucky, southeastern Missouri and northern Mississippi; emphasis on both native and cultivated woody species. Identification primarily of plants in summer condition, but also woody plants in winter. One lecture,
two laboratory hours per week. PREREQUISITES: BIOL 1200, two laboratory hours per week. PREREQUISITE
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 3050 or per. mission of instructor. [0420.1]
4400. Advanced Microbiology. (4). Advanced theory and principles of microbiology; emphasis on morphology and bacterial metabolism. Two lecture, four laboratory hours per week. PRE-
REQUISITES: BIOL 3500 and one year of inorganic chemistry, REQUISITES: BIOL 3500 and one year of inorganic chemistry,
with organic chemistry desirable. [0419.1]

4440-6440. Pathogenic Microbiology. (4). Survey primar pathogenic bacteria, diseases they cause and methods of
nosis; introduction to immunological principles and imm nosis; introduction to immunological principles and immi
Considerable attention to laboratory methods used for id cation of pathogenic bacteria. Two lecture, four labot hours per week. PREREQUISITE: BIOL 3500, with or chemistry desirable. (0411.1)
4444-6444. Immunology. (4). in vitro and in vivo reactio antigens and antibodies, hypersensitivities, blood group vaccines. Two lecture, four labora tory hours per wo
REQUISITES: BIOL 3500 and CHEM 3311 . [0408-1]
4460-6460. Sanitary Bacteriology. (4). Microorganisms in tion to water and sewage, disinfection and disinfectants lecture, four laboratory hours per week.
3500 or consent of instructor. [0403-1]
4470.6470. Molecular Genetics. (4). Structure, function: replicatıon of DNA, recombination, colinearity of DNA wit netıc map, mutagenesis, gene transter, plasmids, code, pr synthesis, suppression, regulation of gene expression, an mol week. PREREQUISITE: organic chemistry or consent of in: tor. [0426-1]
4560-6560. Microbiology of Foods. (4). Microorganisms it ural and processed foods; origins, nature, and effects on $f$ enumeration, and relation to health. Two lecture, four la
tory hours per week. PREREQUISITE: BIOL 3500 or conse instructor. [04 11-1]
4604-6604. Ethology. (4). Animal behavior with emphas recent developments in the field, including history of ethe learning, releasers, communication, orientation, instinct togical clocks, and evolution of behavior. Two lecture, four ratory hours per week. [0499. 1]
4620.6620. Vertebrate Histology. (4). Microscopic stui normal tissues and organs of vertebrate body. Two lecture or permission of instructor. [04 13-1]
4630-6630. General Endocrinology. (3). Anatomy and ph ogy of the organs of internal secretion; role of hormon metabolis
[0410.1]
4640-6640. Field Zoology. (4). Identification, life history habitat of the animals of this locality; birds and insect omitted. Two lecture, four laboratory hours per week. 1040
4644-6644. Ichthyology. (4). Collection, preservation, ide cation, life histories, management, and economic impor
of fishes. Two lecture, four laboratory hours per week. 104 !
4651-6651. Field Techniques in Vertebrate Zoology. Techniques in field study of
outside local area. [0407.9]
4720-6720. Vertebrate Neurology. (4). Nervous system lected vertebrates. Three lecture, two laboratory hour
week. PREREQUISITE: permission of instructor. 10425.1$]$ 4740-6740. Mammalogy. (4). Classificatıon, distributior histories, economic importance, techniques of field methods of collection and preservation of mammals. Iw
ture, four laboratory hours per week. PREREOUISITE: ture, four laboratory hours per week. PREREOU
3620 or 3700 or permission of instructor. [0499. 1]
4744-6744. Herpetology. (4). Classification, distributior histories, techniques of collection and preservation, ni habitats of North American reptiles and amphibians. Tw: 3620 or 3700 or permission of instructor. (0499.1]
4760. Wildlife Management. (4). Distribution, identific population analysis, game mapping techniques, and ma ment of wildife. Wo lecture, four laboratory hours per
PREREQUISITES: BIOL 3050 and one of the following: PREREQUISITES: BIOL 3050 and one of
$3600,4640,4644,4740,4744$. 0499.1 J
4770.6770. Mammalian Genetics. (4). Principles of herec lecture, two laboratory hours per week. PREREQUISITE 3070 or equivalent. [0422-1]
4820-6820. Protozoology. (4). Free living and parasitic zoa; consideration to structure, function, taxonomy, $h$ [0499. 7]
4840. Invertebrate Zoology. (4). Invertebrate anımals, sive of insects; attention to phylogeny, organology, and 1
omy. Two lecture, four laboratory hours per week. (0499. I 4901-6901. Field Technique in Entomology. (4). Field lecfure, four laboratory hours per week. PREREOUISITE mission of instructor. [0421.1)
4920-6920. Insect Morphology. (4). Form and structure sects, considering both external and internal morphology lecture, four laboratory hours per week. (0421.1]
4930-6930. Insect Physiology. (4). Physiology as applied processes of insects. Two lecture, four laboratory houl
week. PREREQUISITE: BIOL 2000 or equivalent. 10410.11 The following courses are taught only at the Gulf Coas sity residence credit is given through affiliation with the $\mathrm{li}^{2}$ tory.
4010-6010. Marine Aquaculture. (6). History, princ problems, and procedures relating to culture of comme important crustaceans, fish, and mollusks along Gulf
PREREQUISITES: general zoology or invertebrate and PREREQUISITES: general zoology or invertebrat
rate zoology or permission of instructor. $10418-1 /$
4051-6051. Marine Ecology. (5). Relationship of marine 1 isms to environment; includes effects of temperature, sé light nutrient concentration, currents and food on abun eral botany invertebrate zoology, analytical chemistry (0418-1]
4052-6052. Salt Marsh Ecology. (4). Emphasis on botanic pects of local marshes, includes plant identification, co ition, structure, distribution and development of $c$
marshes. PREREQUISITES: ten hours of biology including

## tory botany. [0418.1]

00.6200. Marine Botany. (4). Local examples of principal ups of marine algae and maritıme flowering plants, treating Icture, reproduction, distribution, identification and ecology.
EREQUISITES: ten hours of biology, including introductory EREQUISITES:
any. 0418.1 ]
50.6500. Marine Microbiology. (5). Role of microorganisms verall ecology of oceans and estuaries. Lecture and laborawork includes sampling procedures, taxonomy of marine teria, mineralization, microbial fouling, pollution, and dis.
es of marine animals. PREREQUISITES: general microbioland consent of instructor (0418.1)
0-6600. Marine Vertebrate Zoology and Ichthyology. (6). rine Chordata, including lower groups and mammals and
Is; emphasis on fishes. PREREQUISITES: sixteen semester urs of zoology including comparative anatomy and junior nding. [0418.1]
16.6646. Marine Fisheries Management. (4). Philosophy, obives, problems and principles involved in management deci75. Lecturers include specialists in biology, fisheries statisfuctor and four semester hours of graduate or undergraducredit. [0418-1]
$\mathbf{0 . 6 8 0 0}$. Marine Invertebrate Zoology. (6). Marine invertebes, especiaHy those of Mississippi Sound region. Emphasis structure, classification, phylogenetic relationships, and ctional processes
oology. (0418-1)
44.6844. Parasites of Marine Animals. (6). Parasites of maanimals; emphasis on morphology, taxonomy, life histories host parasite relationships. Lecture, laboratory and field
h included PREREQUISITES: general parasitology or conhof instructor. [0418-1]
to
duate courses in Biology: for course descriptions and her details of the graduate program, see The Bulletin of The duate School.

## CHEMISTRY

PROFESSOR JAMES C. CARTER, Chairman
Room 210, J. M. Smith Hall
Department of Chemistry offers courses leading to the B.S. ree with a major in either chemistry or physical science. The artment also offers a program culminating in the profes-
al degree of Bachelor of Science in Chemistry. This proal degree of Bachelor of Science in Chemistry. This pro-
n is designed to meet the requirements of the Committee $n$ is designed to meet the requirements of the Committee
?rofessional Training of the American Chemical Society, and dertaken primarily by students who desire to go directly to tions in chemical industry, or to enroll for postgraduate $y$ in chemistry

## SEQUENCE OF COURSES

dents who present credit for at least two years of high ool mathematics (including algebra), or who have an ACT hermatics score of 22 or better, should enroll in CHEM 1111
ey plan to take more than one year of college chemistry, or ey plan to take more than one year of college chemistry, or
to major in either a natural science or in civil, mechanical, to major in either a natural science or in civil, mechanical,
ectrical engineering. CHEM 1100 is a one-semester course gned for those students of limited preparation in mathecs whose curriculum calls for the CHEM 1111-1112 sefed for students interested in the science of chemistry and mpact on modern society. This sequence is not credited toa major in chemistry or physics but contributes to fultill. the University science requirements of other majors. It is nally undertaken by those who require only one year of
nistry in satisfying their degree requirement. Credit may nistry in satisfying their degree requirement. Credit may
noe received for both CHEM 1100 and CHEM 1111 simultausly. PSCI 10311032 is an introductory sequence requirHo previous science experience. These courses emphasize
lamental principles and concepts, and are designed for science majors interested in a study of several areas of sical science.

## ADVANCED PLACEMENT

3 nning students who have had previous high school training

## E070 CHEMISTRY (CHEM)

D. Chemistry of Life Processes. (4). Chemistry as related to urstanding of life processes. Implications of topics from ral and organic chemistry, as well as biochemistry. Three ire, two laboratory hours per week. This course will not be , or requirement. [5208-1]
1.Chemistry for Nurses. (3). Topics from varıous areas of inistry which are applicable to nursing profession. Three eyre hours per week. Will not be counted toward Universtity Jeral degree requirement for science nor toward major in
Nege of Arts and Sciences. May be counted as free elective in Mpleges except Engineering. [5208-1]
10. Chemistry for Reactor Technicians. (3). Chemistry of nupower plants; emphasis on water chemistry and materials in reactor construction. Forty contact hours of instruction. ed through Center for Nuclear Studies only and is not ap-

Coliege Chemistry. (4). Fundamental laws of chemistry mpact of chemistry on modern society. Three lecture, two jator hours per wee
or physics. [1905.1]
1052. College Chemistry. (4). Continuation of CHEM 1051; em phasis on elementary organic and biochemistry. Three lecture, two laboratory hours per week. Not credited toward major in
chemistry or physics. PREREOUISITE. CHEM 1051 (1905.11 chemistry or physics. PREREQUISITE: CHEM 1051. [1905.1]
1100. Introduction to Chemistry. (3). For students whose cur riculum 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 toward major in chemistry, physics, physical science, or engineering, nor does it satisty any part of science requirement for any de gree. CQREQUISITE: MATH 1211 or 1212 recommended.
[1905-1] [1905-1]
1111. Principles of Chemistry. (4). For students who are major ing in one of the physical sciences, biology, mathematics or en gineering, or who are following a pre-professional program re quiring additional chemistry. Three lecture, three laboratory hours per week. PREREQUISITE: two units of high school math ematics including algebra, or an ACT score of 22 or better on the mathematics section, or CHEM 1100. COREQUISITE: MATH 1211, 1212, or 1321. [1905-1]
1112. Principles of Chemistry. (4). Continuation of CHEM 1111. Three lecture, three laboratory hours per week. PREREQ UISITE: CHEM 111 1. (1905-1]
3200. Chemical Equilibrium and Electrochemistry. (2). Acid base, solubility, complexation equlibria including activity ef tects, electrochemistry, and electroanalytical chemistry. Em-
phasis on modern methods of problem solving. Two lecture hours per week. CQREQUISITE: CHEM 3411. [1909. 1]
3301. General Organic Chernistry Laboratory. (1). Emphasis on laboratory techniques as applied to synthesis and class reactions. Three laboratory hours per week. PREREQUISITE: CHEM 3302 O 1 Cher
3302. General Organic Chemistry Laboratory. (1). Continuation of CHEM 3301; emphasis on correlation of chemical behavio with structure. Three faboratory hours per week. PREREQUI SITES CHEM 3311 and 3301. CQREQUISITE QR PREREQUISITE: CHEM 3312. [1907-1]
3311. General Organic Chemistry. (3). Systematic study of preparations and properties of organic compounds, including interpretations based on modern theories of organic chemistry Emphasis on aliphatic and aromatic hydrocarbons, their halo gen derivatives, and alcohols. Three lecture hours per week PREREQUISITE: CHEM 1112 [1907-1]
3312. General Organic Chemistry. (3). Continuation of CHEM 3311 ; emphasis on more important functional derivatives of al. iphatic and aromatic hydrocarbons. PREREQUISITE: CHEM 3311. [1907.1]
3400. Chemical Analysis. (2). Theory and practice of modern chemical analysis. Includes acid-base, redox, and complex ion equilibria, separation methods, absorptiometry, flame spectroscopy, and electroanalytical methods. Two lecture hours per week. PREREQUISITE: CHEM 3311. [1909.1]
3401. Elementary Physical Chemistry. (3). Abbreviated course in physical chemistry. Includes elementary thermodynamics, phase transitions, solution chemistry, electrochemistry, kinet ics, colloidal and surface chemistry, and molecular polarity. (Credit in this course is superseded by credit in CHEM 3411).
Three fecture hours per week. PREREQUISITES: CHEM 3311 Thre lecture hours per week. PRE
and PHYS 2112 or 2512. [1908-1]
3404. Chemical Analysis Laboratory. (2). Application of tech. niques of quantitative analysis in areas described in CHEM
3400. Six laboratory hours per week. COREQUISITE: CHEM 3400. [1909-1]
3407. Elementary Physical Chemistry Laboratory. (1). Meas urement of physical quantities, including equilibrium constants, heats of reaction, molecular weight, viscosities, and re.
action rate constants. Three laboratory hours per week action rate constants. 401 ITee labora
3411. 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. PREREOUISITES: PHYS 2112 or 2512; MATH 2321. [1908-1]
34 12. 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 hours per week. PREREQUISITE: CHEM 3411. [1908-1]
3601. Identification of Compounds. (1-3). Identification and separation of compounds; emphasis on various forms of spectroscopy and gas chromatography. A three-credit unit for stu dents in professional degree program, may be taken for re duced credit with consent of department chairman by those transferring into this degree program. One lecture, six labora-
tory hours per week PREREQUISITE: CHEM 3301 . COREQUitor hours per week. PRERE
SITE: CHEM 3312. [1905-1]
3602. Physical Measurements. (1.3). Introduction to quantita tive measurement and data handling leading to intensive properties such as standard electrode potential, equlibrium constant, molecular weight, paramagnetic moment, etc. A three-credit unit for students in professional degree program, may be taken for reduced credit with consent of departmen laboratory hours per week. COREQUISITES: CHEM $3411,3200$. [1908.1]
3603. Synthesis, Characterizations, and Dynamics. (1-3). Laboratory for advanced students. Limited number of in depth expe riments involving product synthesis and identification, methods of reaction rate measurements, trace analysis, and digital elec tronics. A three credit unit for students in professional degree program, may be taken tor reduced credit with consent of de partment chairman by those transferring into this degree pro-
gram. Nine laboratory hours per week. COREQUISITES: CHEM gram. Nine laboratory
$3412,4220 .[1909.1]$
4111.6111. Inorganic Chemistry. (3). (4210). Theoretical and applied inorganic chemıstry. Stress on relationship of structure and bonding to properties of elements and compounds. Includes introductory molecular orbital theory, coordination compounds and organometallics, ligand field theory, nonaqueous
solvent systems, and reaction mechanisms. Three lecture
hours per week. PREREQUISITE: CHEM 3412, or permission of the instructor. [1906. 1j
4199. Special Topics in Inorganic Chemistry. (1.6). Topics of current interest to undergraduates pursuing B.S. degree. May
be repeated for maximum of 6 semester hours credit. PREREQ. be repeated for maximum of 6
UISITE: CHEM 411 . [1906.8]
4220.6220. Instrumental Methods. (2). Advanced topics in electrometric, spectrometric, and chromatographic methods of collection and interpretation of data, and introduction to electronic and optical principles of chemical instrumentation, including automatic data acquisition. Two lecture hours per week. PREREQUISITE: CHEM 3200 or permission of instructor. [1909.1]
4299. Special Topics in Analytical Chemistry. (1-3). Topics of current interest to undegraduates pursuing B.S. degree. May
be repeated for maximum of 6 semester hours credit. PREREQ. be repeated for maximum of 6
UISITE: CHEM 4220. [1909-8]
4399. Special Topics in Crganic Chemistry. (1-3). Topics of current interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester hours credit. PREREQUISITE: CHEM 3412. [1907-8]
4499. Special Topics in Physical Chemistry. (1.3). Topics of
current interest to undergraduates pursuing B. S degree. May be repeated for maximum of $\mathbf{6}$ semester hours credit PREREQUISITE: CHEM 3412. [1908-8]
4501.6501. Biochemistry Laboratory. (1). Investigation of physical and chemical propertes of compounds of biological interest by common laboratory techniques. Assay of enzymes and enzyme kinetics stressed. Three laboratory hours per week.
PREREQUISITES:
CHEM 3302 or 3601 and CHEM 3312 . CQREQUISITE: CHEM 4511. [0414-1]
4502.6502. Biochemistry 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. Biochemistry. (4). Chemistry of amino acids and proteins related to their properties in biochemical systems. Enzymology, including kinetics and conformation studies. Coenzymes and their functions. Chemistry of carbohydrates, lipids, and nucleotides. Three lecture hours per week. PREREQUI-
SITE: CHEM 3312. COREQUISITE: CHEM 4501 recommended. SITE: CHE
(0414.1)
4512.6512. Biochemistry. (3). Continuation of CHEM 4511 Metabolism of carbohydrates, amino acids and nucleotides. Biochemistry of DNA and RNA, including their relationship to biosynthesis of proteins. Metabolic control. Three lecture hours biosynthesis of proteins. Metabolic control
per week. PREREOUISITE: CHEM 4511. (0414-1)
4599. Special Topics in Biochemistry. (1-3). Topics of current interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester hours credit. PREREQUISITE: CHEM 3412. [0414 8]
4900-6900. Chemical Literature. (1). Use of chemical literature and writing of technical reports. One lecture hour per week PREREQUISITE: permission of instructor [1905. 1]
4910. Seminar. (1). Special projects, reports and investigation of current chemical literature. One lecture hour per week. PREREQUISITE: CHEM 4900. [1905-1]
4991. Chemical Research. (1). (See description under CHEM
4993.) (1905.8) 4993.) [1905.8]
4992. Chemical Research. (2). (See description under CHEM 4993.) [1905-8]
4993. 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 effec live laboratory techniques, critical experiment design, and sci entific reporting. To receive credit toward a major in chemistry,
student must complete three semester hours in these research student must complete three semester hours in these research COurses. Three to nine laboratory hours per week. PREREQUX pected to complete prospectus in consultation with a faculty sponsor before registering for this course. [1905-8]

## PHYSICAL SCIENCE (PSCI)

1031. Physical Science. (3). Introductory course; emphasis on undamental principles and concepts of physical science. Two lecture, two laboratory hours per week. (1901-1]
1032. Physical Science. (3). Continuation of PSCI 1031. Two lecture, two laboratory hours per week. PREREQUISITE: PSCI 1031. [1901.1]

4050-6050. Glass Manipulation. (2). Laboratory course in fundamentals of glass manipulation and construction and repair of simple laboratory apparatus. Six laboratory hours per week PREREQUISITE: senior standing. [1905. 1]
Graduate courses in Chemistry and Physical Science: For course descriptions and further details of
program, see The Bulletin of the Graduate School.

## CRIMINAL JUSTICE

## PROFESSOR JOSEPH A. CANALE, Chairman

Room 405, Mitchell Hall

[^5]
## E250 CRIMINAL JUSTICE (CJUS)

1100. Introduction to Criminal Justice. (3). Introduction to American criminal justice system in its three dimensions: po cient and early English beginnings to present time. [2105-1]
1101. Concepts and Issues in Criminal Justice. (3). Topics em phasizing specific problems in criminal justice system. Focus on integration of police, courts, and corrections subsystems
and their relations to community. PREREQUISITE: CJUS 1100. and their
[2105-1]
1102. Technlques of Criminal Investlgation. (3). Description, analysis, and demonstration of historical and contemporary echniques and procedures utilized in identification, apprehen sion, and presentation to Court of the criminal. [2105-1]
1103. Criminallstics. (3). Scientific procedures employed in criminal investigation, principally with respect to location, de velopment and use of physical evidence in criminal identifica tion, including latent fingerprints, casting, document exam
tion, and ballistics. PREREQUISITE: CJUS 2221. [2105.1]
1104. Street Law: A Course In Practical Law. (3). Practical application of law to everyday problems. Legal processes and resources available to every citizen; case materials in criminal, consumer, environmental, and family law with reference to their relationship in criminal justice context. (2520.1)
1105. The Administration of Criminal Justice. (3). Criminal jus ice prucedures for detection of crime and arrest of suspects hrough prosecution, adjudication and sentencing and impris onment, to release and revocation. Policies and practices in criminal justice process. [2105.1]
1106. 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]
1107. Drug Addiction and Alcohollsm. (3). Cultural and medical aspects of use of alcohol and various other drugs; considera tion of roles of law enforcement and corrections in these areas. [2105.1]
1108. Police Administration. (3). (3526). Comparative analysis of problems, procedures, organization, and functions of effective police organization. [2105 1]
1109. Court Administration. (3). Court operations including as signments 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 and maintaining
cases. $[2105-1]$
1110. Corrections Administration. (3). Principles of organiza tion and management in corrections administration. Concepts of organizational behavior applied to prisons and other deten tion facilities and special programs in institutional manage
ment. PREREQUISITE: permission of instructor. [2105.1]
1111. Law and Soclety. (3). Law as system of control and as mechanism for resolution of conflict. Relationship of law to po litical, economic and social systems critically analyzed and de velopment of legal profession studied. [2105. 1]
1112. Criminal Procedure I. (3). (4526). General view of crimi nal 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]
1113. Criminal Procedure II. (3). Application of various consti tutional principles to investigative and prosecutive procedures of criminal justice process, including arrest, search and sei zure, interrogation, identification procedures and trial and pos
trial proceedings. PREREQUISITE: CJUS 3521 . [2105-1] trial proceedings. PREREQUISITE: CJUS 3521. [2105.1]
1114. Individual Directed Study In Criminal Justice. (1.4). Indıvidual directed reading and research in special areas of interest in field of criminal justice. PREREQUISITE: permission of director. [2105.8]
1115. Crime and Criminal Typologles. (3). Classification of crime and typical elements involved in each type of crime; clas sification of criminal offenders and salient career variables as-
sociated with each type of offender relative to background, sociated with each type of offender relative to background, crime, and career prognosis. [2105.1]
1116. Ethlcal Dllernmas In Criminal Justice. (3). Legal, moral, and social implications of ethical dilemmas in criminal justice, less crimes, surveillance, enforcement of unpopular laws, use of informers, plea bargaining, judicial discretion, and capital punishment. Subcultural norms and dilemmas they present to crıminal justice practitioner. [2105-1]
1117. Internship In Criminal Justlce. (1-3). Experience in actual criminal justice setting; internship initiated by department in agency, and both department and agency supervise and direct student program. May be repeated for maximum of 6 hours.
PREREQUISITE: senior standing and or approval of instructor. [2105-5]
4151-6151. Soclo-Medical Aspects of Criminal Justice, (3). (3151). Cultural aspects of crime, suicide, sexual deviancy; emphasis on medical role of prevention, detection and treatment. Role of physician as expert witness;
profession to criminal justice. [2105. 1 ]
1118. 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]
1119. 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 current effectiveness and future potential for crime suppression. [2105.1]
1120. Pollce Planning. (3). Advanced study and analysis of plans relating to procedures, tactics, personnel, equipment, buildings, budget, and extra-departmental activities which po-
lice administration encounters. [2105-1]
1121. Public Relatlons and the Police. (3). Role of law enforce ment personnel and administrators in police-community rela tions; forms and possible approaches for improving com.
munications with public; role of police officer in improvement of munications with public
public image. [2105.1]
1122. Police Operational Intelligence. (3). Collection, analysis, storage and retrieval of confidential and classified information. Techniques employed to gain information from informants and
infiltrators. Techniques of detecting subversive operations and infiltrators. Techniques of detecting subversive operations and [2105-1]
1123. Organized Crime. (3). Nature, structure, characteristics, and investigation of syndicated crime; its impact on social and 4424.6424. The American Prison System. (3)

4424-6424. The Amerlcan Prison System. (3). (3424). Historical development, organizational structure, program content,
and current problems of American correctional institutions. and curren
4425-6425. Communlty Based Corrections. (3). Community based strategies for dealing with criminal offenders. Includes parole, probation, pardon, diversion programs, community residential services, restitution, role of voluntary organizations, and correctional techniques suited to non-institutional settings [2105.1]
4430. Correctional Casework. (3). Involves integrated phases: social investigation; diagnosis; prescription; implementation and follow up. Basic goals to reduce crime and recividism through application of acceptable standards of practice in these
phases. For probation officers, counselors, classification offiphases. For probation officers, counselors, classification offi-
cers, parole officers, court-prison employees and students macers, parole officers, court-prison
joring in criminal justice. [2105-1]
4435. The Prison Society. (3). Prison social structure and its relationship to official world that contains it. Leadership, internal law, internal commerce, subgroups and homosexuality; value changes, both transitional and permanent. Vocabulary in argot of prisons. [2105.1]
4520-6520. Substantive CrImInal Law. (3). (3520). Substance of the crime, including common-law sources and basic principles, types of offenses, responsibility, justification and excuse,
4530. 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]
4531. Civll Rights in the Criminal Justice Process. (3). Constitutional provisions, statutes and court decisions relating to civil rights as applied to various participants in criminal justice proc-
ess. PREREQUISITE: CJUS 3521. [2105-1) 4532-6532. Constltutional Rights of Prisoners. (3). Legal status of persons during preconviction and post conviction confinement; includes factors involving discipline, legal services, communication, medical aid, and related matters; considera-
tion of civil and criminal liability of prison officials. PREREQUI. tion of civil and criminal liab
SITE: CJUS 3521 .[2105.1]
4533.6533. The Juvenlle Justice System (3). History, organiza. tion, programs and procedures of agencies charged with control and prevention of juvenile deliquency including police, juvenile units, juvenile court, and juvenile correctional agen-路
For graduate course descriptions and details of the graduate program, see the Graduate Bulletin

## ENGLISH

## PROFESSOR JOSEPH K. DAVIS, Chairman

Foom 467, Patterson Hall

All candidates for graduation at Memphis State University are required to complete ENGL 1101 and 1102 or their equiva. lents, and any two of the following: ENGL $2101,2102,2103$, $2104,2105,2106$ or their equivalents. (English majors are required to take ENGL 2101 and 2102 . See in section 7, Colleges and Degree Programs, for an exception to this requirement.) Freshman and sophomore sequences must be scheduled in consecutive semesters through the freshman 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.

## E080 ENGLISH (ENGL)

101. English as a Second Language. (1). Introduction to Eng. lish. Concentration on aural-oral skills; introduction to grammar and sentence structure. Two weekly audio-lingual laboratory 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. Audio-lingual
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 laboratory optional. 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 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 sludents who need instruction at the pre English 1101 level, or who simply
want a refresher course in basic writing. RESTRICTION: Satis-
fies no English requirement for any University degree. (1501) 1101. English Composition. (3). Training in writing of Eng sentences, paragraphs, and longer compositions related
reading of essays and short fiction. PREREQUSITE: EI 1100 with grade of C or better, or ACT English score of 1 ,
above, or SAT verbal score of 450 or above, or satistaci completion of placement essay written under supervision of partment of English. (1501-1)
105. Engllsh Composition and Analysls. (3). Further trainin English composition related to introductory study of poe [1501-1]
106. Engllsh Literature. (3). Selected readings in English li ature from beginning through eighteenth century; attentio
development of literary forms and to cultural context Comf development of literary forms and to cultural context. Comp ition and critical thinking beyond levels expected of freshm
PREREQUISITES: ENGL 1101 and 1102, or their equivalen [1502-1]
107. Engllsh Literature. (3). Selected readings in English li ature from Romantic period to present; attention to deve ment of literary forms and to cultural context. Composition QUISITIES: ENGL 1101 and 1102 , or their equivalents. [15 $1]$
108. Modern European Fletlon. (3). Selected readings in I ish and Continental fiction of nineteenth and twentieth ce ries; attention 10 development of fictional forms and to mal
of modern European intellectual and literary tradition. Coml of modern European intellectual and literary tradition. Comy
ition and critical thinking beyond levels expected of freshr ition and critical thinking beyond levels expected of freshrr
PREREQUISITES: ENGL 1101 and 1102 , or their equivaler [1502.1]
109. Pootry and Drama. (3). Selected readings of poems plays; attention to development of genres. Composition critical thinking beyond levels expected of freshmen. PRER CISITES: ENGL 1101 and 1102, or their equivalents. [15022105. American Fictlon. (3). Selected readings in American tion of nineteenth and iwentieth centuries; consideratior characteristic themes and techniques of both American n and American short story. Composition and critical thinking yond levels expected of freshmen. PREREQUISITES: EI
1101 and 1102 or their equivalents. 1502.1$]$ 1101 and 1102 , or their equivalents. [1502-1]
110. Contemporary LIterature. (3). Selected readings in etry, drama, and fiction of America, Britain, and Europe, wri since World War II; attention to development of literary mo and to cultural context. Composition and critical thinking yond levels expected of freshmen. PRERE
1101 and 1102 , or their equivalents. [1502.1]
111. Speclal Topics In Llterature. (3). Selected readings ir erature; attention to development of themes and technia Composition and critical thinking beyond levels expecter freshmen. NOTE: An elective, which will not fulfill any spe
English requirement. PREREOUISITES: ENGL 1101 and 1 ? English requirement. PREREQ
or their equivalents. [1502-1]
112. Introduction to Creatlve Writing. (3). Writing of fic and poetry. An elective which will not fulfill any specific Eng 1101 or 1102 and permission of department registrar

## [1507.1]

2602. Intermedlate Compositlon. (3). Study and practict writing essays and reports at levels beyond freshman Engl Focus on construction of clear, logical well made expositio An elective which will not fulfill any specific English reqi
ment. PREREQUISITES: ENGL 1101 and 1102 or their equ ment. PREREQU
lents. (1501-1]
Note: No student may enroll for an upper-divislon Eng course untll he has compieted satlsfactorily ENGL. 1101, 11
or thelr equlvalents, and any two of the following: ENGL 21 2102, 2103, 2104, 2105, 2106, or their equivalents.
2603. Special Toplcs In Advanced Engllsh. (1-3). Literary or guistic topic or pro
mester. [1502.1]
2604. The Medleval Period. (3). Readings in English auth chiefly of fourteenth and fifteenth centuries, related to stud Middle English. [1502-1]
2605. The Sixteenth Century. (3). Poetry and prose, chi non-dram
[1502.1]
[1502.1]
2606. Th
2607. The Seventeenth Century. (3). Selected poetry and pl from Donne and Bacon to Restoration, studied in
litical and intellectual events of period. [1502-1]
2608. The Restoration and the Elghteenth Century. (3) Po and prose from 1660 to Romantic Period; attention to the
cal aspects of neoclassicism and advent of romanticism. [1502.1]
2609. The Romantlc Period. (3). English Romantic poetry tention to prose
tury. [1502.1]
2610. Victorlan Poetry. (3). Major English poets wrl
between 1830 and 1900 ; consideration of social, intellec and aes thetic interests of period. [1502-1]
2611. Victorlan Prose. (3). English prose between 1830
2612. The Twentleth Century. (3). Major literary movem and techniques of English literature in twentieth centu [1502-1]
2613. American LIterature. (3). Survey of American litera from beginning through Romantic period. [1502-1]
2614. Amerlcan Llterature. (3). Survey of American litera
from advent of Realism to present. 1502.1 ] from advent of Realism to present. [1502.1]
2615. The American Novel. (3). Reading of represente
American novels of nineteenth century; consideration of i relation to English and European work and to American de opments in genre. [1502-1]
2616. The American Novel. (3). Reading of representi American novels from 1900 to present; attention to releva
erary and cultural developments in Europe and America. [1502.1]

Foreign Languages

1. European Literature. (3). Major literary works of western 1. European Literature. (3). Major literary works of western
lization from Homer through Renaissance, read in English ization from Hom [1503-1]
2. European Literature. (3). Major literary works of western lization from 1600 to present, read in English translation. 03-1]
3. The Continental Novel. (3). Critical analysis and apprecin of representative novels chosen from works of important opean writers from 1850 to 1950. [1503-1]
4. English Grammar. (3). Brief introduction to current lintic scholarship concerning grammatical theory, especially isformation generative description of sounds, word struc-
syntax, and semantics of English. Neither a review of syntax, and semantics of English.
mmar nor a remedial course. [1505-1]
5. Writing and Editing in the Professlons. (3). Workshop in iniques of communicating effectively in business, industry. government. Developing practical writing skills for technipublications. such as reports, data analyses, and research cles. Editing practices involved in packaging and distributsuch writing in printed form. [1502.1]
6. Internship in Writing. (1-6). Supervised on the job trainas a writer in such fields as business, industry, and governit. PREREQUISITES: ENGL 3602 and approval of out-of1. Theory and Practice In Literary Criticlsm. (3). Introdu to theory of literature related to exercises in practical criti1. [1501.1]
7. Senlor Honors Seminar I. (3). Intensive study of problem Inguage or literature. Enrollment limited to English honors ents. [1502-1]
8. Senior Honors Seminar li. (3). Intensive study of problem nguage or literature. Enrollment limited to English honors lents. [1502.1]
1-6231. Chaucer. (3). Chaucer as literary artist, including fing of representative works and discussion of their philoiical and social context. [1502-1]
9. Shakespeare's Tragedies. (3). Selected tragedies; ded critical examination of at least five. [1502.1]
10. Shakespeare's Comedies and Histories. (3). Selected edies and histories. [1502.1]
4-6234. Miton. (3). Milton's development as literary artist; hasis on his poetry but some attention to his prose.
2.1]
-6241. The English Novel. (3). Major English novels from aissance to mid-nineteenth century. [1502-1]
2-6242. The English Novel. (3). Major English novels from nineteenth century to present. [1502.1]
-6251. English Drama. (3). Development of genre in Eng from medieval times to 1642. [1502-1]
2-6252. English Drama. (3). English drama from 1660 to ent; attention to developments in genre. [1502-1]
3-6321. American Literature: Major Writers. (3). Seven mariters before
man. [1502-1]
11. American Literature: Major Writers. (3). Seven major rrs af1
$2 \cdot 1]$
Southern Literature. (3). Southern literature from beginto present; emphasis on twentieth-century authors. 2.1)
12. American Drama. (3). Development of American drama serary form in relation to English and European tradition ocurrents in American thought. [1502.1]
Black American Literature. (3). Black American writing, beginning to present; emphasis on major authors.
v. 2.1]
13. Introduction to Folk Literature. (3). Traditional folk literaemphasis on such forms as tale, legend, myth, story, and Role and importance of literature in tolk culture and in Mrn society. Emphasis on collection of material in Midmin society. Emph
di region. [1502.1]
14. Contemporary Poetry. (3). British and American poetry cabout 1900 to present. [ 1502-1]
15. Contemporary Fiction. (3). English and American fiction cabout 1900 to present. [1502-1]
16. Biblical Literature. (3). Selected books from Old and New ments; emphasis on literary value and consideration of

5-6501. History of the Engllsh Language. (3). Relationship I alish to other Indo-European languages; etymology and et$x$ of word-borrowing, word-formation, and semantic change npglish vocabulary; and development of English sounds, inguns, and syntax. [ $1505-1$ ]
6. Poetry Workshop. (3-6). The nature of poetry, critical aprches to the poem, and practical experience in writing and Ing text. Repeatable to maximum of 6 hours with permisof instructor. (1507.1)
6. Advanced Composition and Rhetoric. (3-6). Principles inIH in writing clear expository prose. Emphasis on applica-
irf these principles; analysis of readings and of student's rig. Repeatable to maximum of 6 hours with permission of
ctor. $11501-1]$ is ctor. [1501-1]
5. Fiction Workshop. (3-6). Nature of short story and longer $\pi$, of fiction, critical approaches to fiction, and practical exrice in writing and revising text. Repeatable to maximum cours with permission of instructor. [1507-1]
9. Honors Thesis. (1-3). Under direction of faculty member, rwith approval of Honors Committee and chairman, each ms student will write a thesis based on primary and/or sec-
ory sources. PREREQUISITE: admission to department hons bgram. [1501-8]
ate courses in English: For course descriptions and
details of the graduate program, see The Bulletin of The details of
ate School.

# FOREIGN LANGUAGES 

PROFESSOR RICHARD O'CONNELL,

## Chairman

Room 375A, Dunn Mathematics
Foreign Languages Building
One hour a week in the language laboratory (two haif-hour sessions) is required for ail 1101, 1102, and 2201 courses in the modern ianguages.

## E110 CLASSICS (CLAS)

With the exception of CLAS 4791, none of the foliowing courses may be used to satisty the foreign language roquirements, nor may they be applied toward a major in ciassical ianguages.
2021. Word Origins and Vocabulary Development. (3). Latin and Greek elements found in English; emphasis on building of standard English vocabulary. [1101-1]
2481. Groek and Roman Mythology. (3). Thematic study of classical myths and their function in ancient literature. Emphaclassical myths and their function in ancient literature. Empha-
sis on reading myths in ancient sources in translation. [1101-1] 3021. Scientific Terminology. (3). Origin and derivation of words used in medicine and the sciences; emphasis on building of scientific vocabulary. [1101.1]
3412. Roman Cuiture. (3). Study based on literary sources, of public and private life, including such topics as family life, slav. ery, religion, medicine, law, and technology. Recommended for teachers. [1109-1]
3413. Greek Literature in Translation. (Same as COLI 3413). (3). Reading and analysis of masterpieces of Greek literature in English translation from Homer to Lucian. Emphasis on development of literary types. [1503. 1]
3414. Roman Literature in Translatlon. (Same as COLI 3414). (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 Studies in Classics. (1-3). Topics in classical literature and civilization. May be repeated for maximum of six
hours credit. PREREQUISITE: permission of chairman and in. hours credit. PRER
structor. [1504.8]

## E140 GREEK (GREK)

1101. Elementary Greek. (3). Elements of Greek grammar and
syntax: practice in reading and translation. [1110-1] 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. [1 110-1]
1104. Greek Historlans. (3). Reading and analysis of selections from writings of Herodotus, Thucydides, and later Greek historians. [1110-1]
1105. Greek Tragedy. (3). Reading and analysis of selected tragedies of Aeschylus, Sophocles, and Euripides. [1110-1]
1106. Plato's Apoiogy, Crito. (3). Reading and analysis of dia3911. Plato's Apoiogy, Crito. (3). Reading and analysis of dia.
logues of Plato which give a prelude to death of Socrates. logues of
[1110.1]
1107. Homer. (3). Reading and analysis of selections from Homer's Iliad and Odysser. [1110.1]
E170 LATIN (LATN)
1108. Elementary Latin. (3). Elements of grammar; practice in Latin composition and translation. (1109-1]
1109. Elementary Latin. (3). Completion of elementary Latin grammar, with additional readings. PREREQUISITE: LATN 1101 or the equivalent. [ 1109.1 ]
1110. Intermediate Latin. (3). Review of basic Latin grammar with reading selections from The Golden Fleece and Roman history. PREREQUISITE: LATN 1102 or the equivalent. [1109-1] 2202. Intermediate Latin. (3). More advanced readings from major authors. PREREQUISITE: LATN 2201 or equivalent. [1109.1]
1111. Roman Historians. (3). Readings and analysis of selections from Caesar, Livy, Tacitus, and Suetonius; emphasis on nature of Roman historiography. [1109.1]
1112. Vergil. (3). Reading and analysis of the Aeneid. [1 109-1] 3811. Ovid. (3). Reading and analysis of the myths in Ovid's Metamorphoses. [1109.1]
1113. Cicero. (3). Reading and analysis of De Amicitia and De Senectute. [1109.1]
1114. Roman Letter Writers. (3). Reading and analysis of Cicero's Letters. [1109.1]
1115. Roman Satire. (3). Reading and analysis of satires of Horace, Persius, and Juvenal. [1109.1]
1116. Elegy, Lyric, and Epigram. (3). Reading and analysis of selections from Catullus, Horace, Tibellus, Propertius, and Martial. [1109.1]

## E090 COMPARATIVE LITERATURE (COLI)

The following courses are given in English and are open to all students without prerequisite. They may not be used to satisty any part of the foreign language requirement nor do they apply
toward a major or minor in any of the foreign ianguages. they may count toward a major or minor in Comparative Literature.
2481. Greek And Roman Mythology. (Same as CLAS 2481). (3). Thematic study of classical myths and their function in ancient literature. Emphasis on reading myths in ancient sources in English translation. [1503-1]
3411. European Literature. (3). (Same as ENGL 3411). Major literary works of western civilization from Homer through Renaissance, read in English translation. [1503.1]
3412. European Literature. (3). (Same as ENGL 3412). Major literary works of western civilization from 1600 to present, read in English translation. [1503.1]
3413. Greek Literature In Translation. (Same as CLAS 3413). (3). Reading and analysis of masterpieces of Greek literature in English translation from Homer to Lucian. Emphasis on development of literary types. [1503-1]
3414. Roman Literature In Translation. (Same as CLAS 34 14). (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]
3441. Russlan LIterature of the Nineteenth Century. (3). Introduction to authors of Golden Age of Russian Literature, with representative works from Pushkin, Lermontov, Gogol, and Turgenev. (Same as RUSS 3441 but in English translation.)
[1106. 1$]$
3442. Russlan Llterature of the Nineteenth Century. (3). Readings in representative works of Dostoevski, Tolstoi, Chekov, and Gorki. (Same as RUSS 3442 but in English translation.) [1106.1]
3611. Survoy of Russlan CIvilzatlon. (3). Russia and its people; highlights of Russian civilization as revealed in fields of literature, music, painting, and architecture. [1503-1]
4423. Cervantes. (3). Don Quixote and the Novelas ejemplares (Same as SPAN 4423 but in English translation.) [1105-1]
4431. Contemporary Spanish Prose. (3). Spanish prose from Generation of 1898 to present. (Same as SPAN 4431 but in English translation.) (1105-1]
4432. The Contemporary French Novel. (3). Survey of twentieth century French novel treating works of such authors as Proust, Gide, Mauriac, Malraux, Sartre, Camus, Maurois. (Same as FREN 4432 but in English translation.) [1 102-1]
4441. Dante. (3). Vita Nuova and the Divina Commedia. (Same as ITAL 4441 but in English translation.) [1104.1]
4443. Major German Writers of the Twentieth Century. (3). Se lected works of Hesse, Thomas Mann, Kafka, Frisch, Duerren matt, Brecht, and Boell. (Same as GÉRM 4443 but in English translation.) [1103.1]
4791. Studles In Comparative Literature. (3). Selected authors, works, or literary problems. May be repeated for credit up to maximum of six (6) hours. Maximum of 3 hours credit accepted toward completion of requirements for Comparative Literature major or minor. PREREQUISITE: joint consent of instructor and director of Comparative Literature program. [1503-1]

## E210 LANGUAGES (LANG)

1701-1702. Speclal Studles In Modern Foreign Languages. (3, 3). Freshman-level instruction in languages not regularly offered by Department of Foreign Languages; offered if and when sufficient demand exists and instructors available. Although credit earned in these courses may be used to satisfy foreign language requirements for degrees, students should be aware of two important points: (1) toreign language 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 sufficient and unless teachers are available, the University cannot offer enough courses to enable student to meet these requirements. [1101-1] 2701-2702. Speclal Studles in Modern Forelgn Languages. (3, 3). Continuation of Language 1701-1702. Offered provided in structor is available and there is sufficient student enrollment [1101-1]
4701-6701. Language Study for Readlng Knowledge. (3). Intro duction to reading of French, German, Russian, or Spanish. Intensive drill in recognizing and interpreting grammatical struc tures, especially those peculiar to scholarly written language. Emphasis both on vocabulary building and on determining 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 un dergraduate language requirement and cannot be applied to ward major.

1. FRENCH [1102-1]
2. GERMAN [1103.1]
3. RUSSIAN [1106.1]
4. SPANISH [1105.1]

4702-6702. Language Study for Reading Knowledge. (3). Continuation of LANG 4701. Further work in recognizing and interpreting grammatical structures. Reading of specialized scholarly texts. Does not fulfill any part of undergraduate lan schager requirement and cannot be applied toward major.

1. FRENCH [1102.1]
2. GERMAN [1103.1]
3. RUSSIAN [1 106.1]
4. SPANISH [1 105-1]

## E120 FRENCH (FREN)

One hour a meek in the language laboratory (two haif-hour sessions) is required for all 1101,1102, and 2201 courses in the modern languages.
1101. Elementary French. (3). Elements of grammar and pron unciation; reading of simple selections. [1 102.1]
1102. Elementary French. (3). Reading selections of increasing difficulty. PREREQUISITE: FREN 1101 or equivalent. [1102.1]
2201. Intermedlate French. (3). Comprehensive review of French grammar, exercises in writing, and readings in French
literature and culture. PREREQUISITE: FREN 1102 the equivaliterature and culture. PREREQUISITE: FREN 1102 the equivalent. [1102-1]
2202. Intermedlate French. (3). More advanced readings. PREREQUISITE: FREN 2201 or equivalent. [1102-1]
3301. Conversation and Composition. (3). PREREQUISITE: FREN 2202 or equivalent. [1102.1]
3302. Conversation and Composition. (3). PREREQUISITE: FREN 3301 or permission of instructor. [1102-1]
3401. 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]
3411. Readings in French Literature. (3). Selections from orl gins to present time. Emphasis on textual analysis. PREREOUI SITE: FREN 3301 recommended. [1102.1]
3791. French for Practical Affairs. (3). Introduction to French business terminology and forms of correspondence with regu lar readings of business, commercial and technical publica
tions. PREREQUISITE: FREN 3301 recommended [1102-1] 3792. French for Practical Affairs. (3). Contınuatıon 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 rench. PREREQUISITE: three years of college French or per mission of instructor [1102.1]
4305.6305. French Stylistics. (3). Translations of English prose into French; emphasis on style and grammar. Recommended for all French majors. PREREQUISITE: FREN 3302 or permis sion of instructor. [1102-1]
4411. Literature Before 1600. (3). Survey of representative masterpieces of Middle Ages and Renaıssance. Readings from Middle Ages include La Chanson de Roland, Yvain, lais of Marie de France, poetry of Villon, and selections from chroniquers. de France, poetry of Vilion, and selections from chroniquers Readings from Renaissance include selections from Gargantua t Pantagruel, Essais of Montaigne, Defense et inusiration de la Ronsard. [1102.1]
4412. 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 Fontaine, Mme de Sevigne, La Bruyere, 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 Naturalism as reflected in work of such authors as Balzac, Stendhal, Flaubert, and Zola. [1102-1]
4432-6432. The Twentieth 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, Dumas, Curel, Becque, Maeterlinck and Rostand. [1 102-1]
4452-6452. Twentieth Century French Drama. (3). Principal dramatists of present century, including Claudel, Giraudoux Sartre, Camus, Anouihl, Montherlant, Beckett, Ionesco, and Sartre, Camus,
others. [1 102 1]
4471.6471. Nineteenth Century Poetry. (3). French poetry from Lamartıne to Mallarme. [1102. 1]
4501-6501. Applied French Linguistics. (3). Application of mod ern linguistic theories to learning French. PREREQUISITE FREN 3301 . [1102.1]
4791. Special Studies in French Literature. (3). Topics in French literature. May be repeated for maximum of 6 hours credit. PREREQUISITE: permission of the chairman and in structor. [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)

One hour a week in the language laboratory (two half-hour sessions) is required for all 1101, 1102, and 2201 courses in the modern languages.
1101. Elementary German. (3). Elements of grammar and pron unciation; reading of simple selections. (Sections using audio visual methods also offered.) [1103 1]
1102. Elementary German. (3). Reading selections of increas ing difficulty. (Sections using audio-visual methods also of fered.) PREREQUISITE: GERM 1101 or equivalent. [ 1103 1]
2201. Intermediate German. (3). Comprehensive review of Ger man grammar, exercises in writing, and readings in German iterature and culture. PREREQUISITE: GERM 1102 or equiva ent. [1103.1]
2202. Intermediate German. (3). 2201, More advanced read ings. PREREQUISITE: GERM 2201 or equivalent. [1103.1]
2203. Scientific German. (3). A contınuatıon of 2201, with readings in science areas. PREREQUISITE: GERM 2201 or equivalent. [1103.1]
3301. Conversation and Composition. (3). PREREQUISITE GERM 2202 or equivalent. [1103.1]
3302. Conversation and Composition. (3). PREREQUISITE GERM 2202 or equivalent. [1103.1]
3411. Introduction to German Literature and Culture I. (3) rom beginnings to late eighteenth century. PREREQUISITE GERM 2202 or equivalent. [1 103.1]
3412. Introduction to German Literature and Culture. II. (3)

From late eighteenth century to modern period. PREREQUI SITE: GERM 2202 or equivalent. [ 1 103.1]
3471. German Poetry. (3). Survey of lyric and ballad from twelfth to twentieth centuries; readings from Minnesang, Ba roque, Enlightenment, Sturm und Drang, Classicism, Romanti cism, Realism, and modern period. PREREQUISITES: two courses from the group GERM 3301, 3302, 3411, 3412; or permission of instructor. [ 1 103.1]
3791. German for Commerce. (3). Introduction to German busi ness terminology and forms of correspondence; regular read REQUISITE: GERM 2202 or equivalent. [ 1103.1 ]
3792. German for Commerce. (3). PREREQUISITE: GERM 3791. [1103.1]
4443.6443. Major German Writers of the Twentieth Century (3). Selected works of Hesse, Thomas Mann, Kafka, Frisch, Duerrenmatt, Brecht, and Boell. PREREQUISITE: two courses from the group GERM 3301, 3302, 3411, 3412; or permission of instructor. [1103.1]
4445-6445. The Age of Goethe. (3). Development of German Classicism. Reading of major works of Goethe and Schiller. Se ected readings from other important writers of period. PRE 3411,3412 . or permission of instructor. [1103.1] 3301, 3302 3411, 3412; or permission of instructor. [1103.1]
4451-6451. The German Drama. (3). Survey of dramatic litera ture from sixteenth to twentieth centuries; readings from Refor mation, Baroque, Enlightenment, Sturm und Drang, Classi REQUISITES: two courses from the group GERM 3301, 3410 3411,3412; or permission of instructor. [1103.1]
4465. German Narrative Prose. (3). Reading of major prose writings from Romanticism to present. Emphasis on the No velle. PREREQUISITES: one course from the group GERM
$3301,3302,3410,3411,3412$; or permission of instructor. 3301, 330
[1103. 1]
4501. Applied German Linguistics. (3). Application of modern linguistic theories to learning German. PREREQUISITES: two courses from the group GERM 3301, 3410, 3411, 3412, or permission of instructor. [1103.1]
4511. The German Language: Development and Structure. (3). German language in its various stages of development. PRE REQUISITE: GERM 3301 or 3302; or permission of instructor [1103.1]
4791. Special Studies in German Language or Literature. (3). redit PREREOUISITE: permission of chairman and instructor [1103.1]
LANG 4701002. German for Reading Knowledge. (3). See LANG 4701
LANG 4702002. German for Reading Knowledge. (3). See LANG 4702.

## E160 ITALIAN (ITAL)

One hour a week in the language laboratory (two half.hour ses sions) is required for all 1101, 1102, and 2201 courses in the modern languages.
1101. Elementary Italian. (3). Elements of grammar and pron unciation; reading of simple selections. [1104.1]
102. Elementary Italian. (3). Selections of increasing diffi
culty. PREREQUISITE: ITAL 1101 or equivalent. [1104.1] 2201. Intermediate Italian. (3). Comprehensive review of Ital ian grammar, exercises in writing, and reading in Italian
literature and culture. PREREQUISITE: ITAL 1102 or equiva. lent. [1104.1]
2202. Intermediate Italian. (3). More advanced readings. PRE REQUISITE: ITAL 2201 or equivalent. [1104-1]
3411. Survey of Italian Literature. (3). Development of Floren tine dialect as literary language of Italy. Representative writers from thirteenth to eighteenth century. Dante. PREREQUISITE ITAL 2202 or permission of the instructor. [1104.1]
3412. Survey of Italian Literature. (3). Outstanding writers of elghteenth, mineteenth, and twentieth centuries; attention to Croce. PREREQUISITE: ITAL 3411 or permission of instructor. Croce.
[1104. 1$]$
4421. The Sixteenth Century. (3). Literature of Italian Renais sance: Ariosto, Machiavelli, Cellini, Sasso, and others. [1104.1]
4441, Dante. (3). The Vita Nuova and Divina Commedia. [1104.1]

## E190 RUSSIAN (RUSS)

One hour a week in the language laboratory (two half.hour ses sions) is required for all 1101, 1102, and 2201 courses in the modern languages.
1101. Elementary Russian. (3). Elements of grammar and pron unciation; reading of simple selections. [1106.1]
1102. Elementary Russian. (3). Selections of increasing diffi culty. PREREQUISITE: RUSS 1101 or equivalent. [1106.1]
2201. Intermediate Russian. (3). Comprehensive review of Rus sian grammar, exercises in writing, and readings in Russian literature and culture. PREREQUISITE: RUSS 1102 or equiva lent. [1106.1]
2202. Intermediate Russian. (3). More advanced readings PREREQUISITE: RUSS 2201 or equivalent. [1106.1]
3301. Conversatlon and Composition. (3). PREREQUISITE: RUSS 2202 or equivalent. [ 1106.1 ]
3302. Conversation and Composition. (3). PREREQUISITE RUSS 3301 or permission of instructor. [1 106-1]
3411. Survey of Russian Literature. (3). From earliest chroni cles, folktales, and legends through classical period to end of eighteenth century. [1106.1]
3412. Survey of Russian LIterature. (3). From beginnıng of nineteenth century to Soviet period. Authors include Pushkin Gogol, Lermontov, Turgenev, Doestoevsky, Tolstoy, and Chek Gogol, Lermo
3441. Russian Literature of the Nineteenth Century. (3). Intro duction to authors who herald Golden Age of Russian Litera ture; 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 Literature of the Twentieth Century. (3). Intro duction to works of Bunin, Zamiatin, Bely, A. Tolstoy, Scholok hov, and Solzhenitsyn. [ 1106.1 ]
3444. Russian Literature of the Twentieth Century. (3). I duction to works which herald Silver Age of Russian po
Authors include Blok, Brusov, Akhmatova, Zwetaeva and Authors include Blo
delstam. [1106.1]
4309. The Art of Translating Russian. (3). Translations of rial from Russian to English in approved content area. REQUISITE: RUSS 2202 or equivalent. [1106.1]
LANG 4701003. Russian for Reading Knowledge. (3). LANG 4701.
LANG 4702003. Russian for Reading Knowledge. (3). LANG 4702.

## E200 SPANISH (SPAN)

One hour a week in the language laboratory (two half-hour slons) is required for all 1101, 1102, and 2201 courses in modern languages.
1101. Elementary Spanish. (3). Elements of grammar and unciation; reading of simple selections. [1 105-1]
1102. Elementary Spanish. (3). PREREQUISITE: SPAN 11 ( the equivalent. [1105-1]
2201. Intermediate Spanish. (3). Comprehensive revie Spanish grammar, exercises in writing, conversation, and I ings in Hispanic literature and culture. PREREQUISITE: $\subseteq$ 1102 or equivalent. [1105.1]
2202. Intermediate Spanish. (3). More advanced read PREREQUISITE: SPAN 2201 or equivalent. [1105.1]
3300. Conversation and Composltion. (3). (3301, 3 : Practice in use of the language. May be repeated for maxil
of 6 credit hours. PREREQUISITE: SPAN 2202 or equival [1 105 1]
3411. Survey of Spanish Literature. (3). Formation of Sp language and literature, readings or representative works lustrate principal periods and genres from beginnings to 1 [1105.1]
3412. Survey of Spanish Literature. (3). Continuation of $\$$ ish 3411, covering Neoclassicism, Romanticism, co [1105-1]
3511. Survey of Spanish American Literature. (3). From nial Period to end of Romanticism. [1105-1]
3512. Survey of Spanish American Literature. (3). beginnings of Modernism to present. [1105-1]
3611. Survey of Spanish Civilization. (3). Spain and its pe highlights of Spanish civilization as revealed in
ture, music, painting, and architecture. (1105.1)
3612. Survey of Latin American Civilization. (3). Latin Am and its people; highlights of Latin American civilization a vealed in fields of literature, music, painting, and architect [1105.1]
3791. Spanish for Commerce. (3). Introduction of Spanish ness terminology and forms of correspondence; regular ings of business, commercial and technical publ
3792. Spanish for Commerce. (3). Continuation of Spi 3791. PREREQUISITE: SPAN 3791. [1105. 1]

4301-6301. Spanish Phonetics. (3). Sounds and intonation terns of Spanish: analysis and practice; comparison
sounds and intonation patterns of English. Especially re sounds and intonation patterns of English
mended for teachers of Spanish. [1105.1]
4302.6302. Advanced Grammar. (3). Thorough and systel presentation of Spanish grammar. Recommended for all ish majors. PREREQUISITE: SPAN 3301 and 3302 . /1105-4391-6391. Topics in Spanish Language. (3). Selected lems in Spanish and Spanish American dialectology and $u$ topics of current concern in Spanish linguistics; individu group projects involving field techniques. May be repeate maximum of 6 semester hours credit, provided same topi repeated. PREREQUISITES: SPAN 3300 or permission structor. [1105-1]
4421.6421. The Golden Age. (3). Spanish lyric poetry drama of sixteenth and seventeenth centuries. PRERE
SITES: SPAN 3411 and 3412 or permission of instruc [1105.1]
4423.6423. Cervantes. (3). Don Quixote and the No ejemplares. [1 105 1]
4431-6431. Contemporary Spanish Prose. (3). Spanish from Generation of 1898 to present. PREREQUISITES: 3411 and 3412 , or permission of instructor. [1105.1]
4432.6432. Contemporary Spanish Poetry and Drama. Spanish poetry and drama from Generation of 1898 to pr PREREQUSIITES:
structor. [1105.1]
4501.6501. Applied Spanish Linguistics. (3). Application guistic theory to learning and teaching of Spanish; re mended for teachers. PREREQUISITE:
permission of instructor. [1 105.1]
4532.6532. Spanish American Drama. (3). Development drama in Spanish America; emphasis on twentieth ce PREREQUISITES: SPAN 3411.3412 or one of SPAN 3512. [1105.1]

4561-6561. Spanish American Prose Fiction I. (3). De ment of novel and short story in Spanish America from nings through
3511 . [1105. 1]
4562-6562. Spanish American Prose Fiction II. (3). Sp American novel and short story from Mexican Revolut present. PREREQUISITE: SPAN 3512 . [1105.1]
4680. Hispanic Literary Criticism. (3). Articles on criticis leading writers such as Fuentes, Cortazar. Paz, Damaso A by Levi-Strauss, Barthes, J. Hilliis Miller, Harold Bloom throp Frye, Lionel Trilling and other present-day critics. [1105.1]
4791.6791. Special Studles in Hispanic Literature. (3). T in Hispanic Literature. May be repeated for maximum

## ictor．［1105－1］

IG 4701004．Spanish for Reading Knowledge．（3）．See
IG 4702004．Spanish for Reading Knowledge．（3）．See NG 4702.
duate courses in Spanish：For course descriptions and
her details of the graduate program，see The Bulletin of The duate School．

GEOGRAPHY
PROFESSOR W．THEODORE MEALOR， Chairman
Room 115，Johnson Hall

## prerequisite for all 3000 and 4000 level courses is either or standing（a minimum

## E220 GEOGRAPHY（GEOG）

1．Introduction to Earth Science：Weather and Climate．（4）． h －sun and earth－moon relations，oceans and their move－ ts，weather，and climate．Three lecture，two laboratory rs，per week．［1917－1］
2．Introduction to Earth Science：Landforms．（4）．Maps as c tool in understanding earth phenomena，landforms，and cts of local physical geography．Three lecture，two labora－ hours per week．［1917－1］
1．Introduction to Human Geography．（3）．Geographical as－
s of human behavior．Focuses on distributional patterns s of human behavior．Focuses on distributional patterns interactions of such cultural characteristics as language， ion，politics，and economics．［2206．1］
1．Survey of Developing World Regions．（3）．Introduction to ntial elements of geographical analysis to establish frame－ for understanding complexities of contemporary world． $g^{\prime \prime}$ encompasses most of Africa，Asia，and Latin America． 9 en
$6.1]$
1．Survey of Industrialized World Regions．（3）．Emphasis on highly＂developed＂areas，including Europe，North Amer－ and Soviet Union．［2206－1］
．Peoples and Cultures of the World（Same as ANTH b）．（3）．Maior ethnographic areas and selected cultures of f．$[2202-1]$
．Principles of Conservation．（3）．（3411）．Current prob－ and responsibilities relating to conservation of soil，miner－ orest：
$6.1]$
Economic Geography．（3）．Spatial characteristics and dis－ it for GEOG 3201 or 3211 will not be allowed credit for （3 3430．［2206－1］
．Geographic Elements in Urban and Regional Planning． ntroduction to regional and urban planning，emphasizing溉 relationships of physical，economic，and cultural phe－ na necessary in planning process．（0206－1）
．Map Intelligence．（3）．Comprehensive study of maps as raphic tools that enable user to gain knowledge of earth gh map reading and map interpretation
；Map Projections：Analysis and Construction．（3）．Analysis onstruction of select number of projections for depicting s curved surface as transformed to plane surface to pro－ ap．［2206－1］

## 6111．Ear

－6111．Earth Science I．The Atmosphere．（3）．Physical pro－ s underlying behavior and responses of atmosphere and ation to understanding of relationship of man to this im． ont element of his environment．［1917－1］
6121．Earth Science II．The Earth．（3）．Land forms，their 1⿹勹⿰丿丿丶⿻工二灬力灬，and their uses to man．［1917－1］
If 6122 ．Earth Science III．The Soil．（3）．Analytical study of iito include therr physical，chemical，and biological quali－ sand
1．6131．Earth Science IV．The Oceans．（3）．Analytical study oceans to include their physical，chemical，and biological aies；their movements，resources，climatic influences，and iftance for transportation．［1917．1］
（6201．Urbanization and Environment．（3）．Ways man has rajed natural environment by urbanization and how physical ajes and processes influence development and function of tif［2206－1］ $6211 . \mathrm{Cl}$
6211．Climatology．（3）．Systematic／regional study of cli－
Emphasis on controlling factors in climate，problems in amphasis on controlling factors in climate，problems in e assification of climatic types，world distributional pat mand methods of handling climatic data．［2206－1］
25231．Water Resources．（3）．Hydrologic processes and application to needs of cities，industry，agriculture，and 10n．［2206－1］
6251．Environmental Threats to Human Survival．（3）． irfal of environmental threats，some of which may threaten af－wide climatic changes and potential changes in earth－ lationships to more immediate threats such as inade food production，local disasters，and nuclear contamina rp206－1］
19． 5304 ．Geography of Europe．（3）．Geographic analysis of 5305．Geography．
Union and its satellites．［2206－1］

4306－6306．Geography of Asia．（3）．Significance of regional dif－ ferences in Japan，China，and India，and brief survey of remain－ ing areas．［2206－1］
4313－6313．Geography of the United States and Canada．（3）． （3313）．Physical，cultural，and economic characteristics of 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 complex．［2206－1］
4324－6324．Geography of Middle America．（3）．Regions and re－ sources 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 GEOG 4324．［2206－1］
4325－6325．Geography of South America．（3）．Regional econo－ mies，resources，and trade in the continent；with stress on mes，resources，and trade in the continent；writh stress on changing significance of landscape related to national and in－ GEOO 3315 or 4315 will not be allowed credit for GEOG 4325 ． ［2206－1］
4421－6421．Political Geography．（3）．Introduction to spatial dis－ tribution，characteristics，and interaction of political processes and systems．Individual student study of selected problems re－ quired．［2206－1］
4431－6431．Urban Geography．（3）．Ailocation 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 Utilization and Settlement．（3）．Characteristic ways that man utilizes land．Emphasis 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：em－ phasis on locational analysis of selected business enterprises． ［2206－1］
4443．6443．Transportation Geography．（3）．Various transporta－ tion 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 sustain rap－ idly growing world population．Includes environmental const－ raints which tend to limit food production and produce food
supply crises． supply crises．［2206－1］
4501．6501．Map Design and Production．（3）．Planning and pro－ duction of maps to present information about earth＇s surface and patterns．［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］
4510－6510．Aerial Photo Interpretation．（3）．Elements and steps involved in interpreting，measuring，and mapping of im－ ages 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 ra－ dar images generated from aircraft and satellites for geo graphic，environmental，and planning purposes．［2206－1］
4521－6521．Quantitative Methods．（3）．Introduction to quanti－ tative methods in geographic analysis．［0701－1］
4531－6531．Urban Field Methods．（3）．Geographic field techniques in reconnaissance and analysis of urban areas． ［2206．1］
4621．Special Problems．（1．3）．Student，under faculty supervi－ sion，studies in－depth particular geographic topic．Repeatable with change in content to maximum of 3 semester hours． ［2206－8］
4700－6700．Geography Internship．（1－9）．Experience working with agency in which geographic knowledge can be utilized．Re－ peatable to maximum of 9 semester hours．［2206．5］
Graduate courses in Geography：For course descriptions and further details 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．Courses num－ bered above 3000 are not open to students with fewer than 55 semester hours credit．

## 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 Civilization II．（3）．Especially recommended for freshmen．Traces forms of civilization from beginning of the eighteenth century to present．［2205－1］
2601．The United States to 1877．（3）．United States from dis－ covery to end of political reconstruction．［2205－1］
2602．The United States since 1877．（3）．United States from 1877 to present．［2205－1］
3121．England Before 1714．（3）．Political，constitutional，cul－ tural，social，and economic development of England from com－ ing of Anglo－Saxons until Hanoverian accession in 1714 ． ［2205－1］
3122．England Since 1714．（3）．Development of England＇s dem－ ocratic government，considering economic，social，intellectual， diplomatic，and imperial affairs．［2205．1］

3200．History of Spain．（3）．Spanish institutions，culture，and politics from ancient times to present．［2205－1］
3211．Colonial Latin America．（3）．Political，economic，social and cultural development in Latin America from pre－conquest era to 1808．［2205－1］
3212．The Latin American Nations．（3）．Major political，eco－ nomic，and social trends in Latin America since 1808．Empha sis on Argentina，Brazil，Chile，and Mexico．［2205－1］
3290．Traditional East Asia．（3）．Chinese and Japanese civiliza tion from beginnings through eighteenth century．［2205－1］
3291．Modern East Asia．（3）．Far East during nineteenth and
twentieth centuries．［2205－1］ twentieth centuries．［2205－1］
3801．American Diplomatic History to 1913．（3）．Diplomacy of United States to 1913．Relationship of diplomacy to domestic policy and attitudes．［2205－1］
3802．American Diplomatic History Since 1913．（3）．Diplomacy of United States since 1913．Relationship of diplomacy to do－ mestic policy and attitudes．［2205－1］
3821．Economic History of the United States to 1865．（3）． ［2205－1］
3822．Economlc History of the United States Since 1865．（3）． ［2205－1］
3840．United States Constitutional History．（3）．Constitutional developments from colonial period to present；emphasis on English heritage，constitutional antecedents of revolutionary era，origins and growth of federal system under Constitution of 1787，and evolution of modern constitutional government in United States．［2205－1］
3861．Social and Intellectual History of the United States to 1865．（3）．［2205．1］
3862．Social and Intellectual History of the United States Since 1865．（3）．［2205－1］
3871．United States Urban History．（3）．Development of Ameri－ can cities，including formation of local social，economic，and can cities，including formation of local social，economic，and political institutio
States．
［2205－1］
3900．History of Tennessee．（3）．Political，economic，and social development of Tennessee from earliest times．［2205－1］
3920．The Old South．（3）．Southern institutions prior to out－ break of Civil War．［2205－1］
3930．The New South．（3）．South from Civil War to present．
［2205－1］ ［2205－1］
3940．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 disci pline．Thought of leading Western philosophers of history about nature of history in its two senses－history as actuality and history as thought about actuality．［2205－1］
4010．6010．Topics in History．（3）．Intensive study of selected topics in history．Topics announced in Schedule of Classes． ［2205－1］
direction of faculty member，student reads about particular topic or topics．PREREQUISITE：admission to Honors Program． ［2205－8］
4014．Directed Readings．（3）．Readings on particular topic in history under supervision of member of faculty．［2205－8］
4020．6020．Internship in History．（3－12）．Supervised intern－ ships working with various governmental agencies，private foundations or business of interest to historians．May be re－ peated for up to 12 hours credit．Prerequisite：permission of department．［2205－8］
4126－6126．Victorian England，1840－1900．（3）．Readings and discussion on selected topics such as development of English discussion on selected topics such as development of English
liberal thought，Victorian society and values，and imperialism． liberal tho
［2205－1］
4145．6145．History of Modern Germany．（3）．Germany from or－ igins of unification movement in Napoleonic Era through Sec－ ond World War．［2205－1］
4160－6160．History of Russia to 1801．（3）．Political，economic， social，and cultural development of Russia from early times to beginning of nineteenth century．［2205－1］
4161－6161．History of Russia from 1801 to 1917．（3）．Political， economic，cultural，and intellectual development of Russian Empire from reign of Alexander I to Bolshevik Revolution of
1917．［2205－1］ 1917．［2205－1］
4162．6162．History of the Soviet Union．（3）．Detailed study of 1917 Revolution and major developments in government，econ－ omy，cultural and social life，and international affairs which fol－ owed．［2205－1］
4163．6163．History of Socialism and Marxism．（3）．Socialist and Marxist thought and rise of socialist and Marxist social and political movements in Europe，Russia and Far East．Unique so－ cial，economic，and political conditions which gave rise to expe－
rimentation with and application of Marxism rimentation with and application of Marxism．［2205－1］
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 Brazil．（3）．Political，economic，social， and cultural development of Brazil from early times to the present．［2205－1］
4281－6281．Africa South of the Sahara．（3）．Emphasis on black Africa in nineteenth and twentieth centuries．Age of imperialism and impact of West on Africa，colonial policies of European powers；rise of nationalist movements；problems of newly inde． pendent nations；role of African countries in world affairs． ［2205－1］
4282－6282．The History of North Africa．（3）．Emphasis on nine－ teenth and twentieth centuries．Extension of European influ－ ence and control；rise of nationalist movements；role of these areas in world affairs．［2205－1］
4283－6283．The History of Southern Africa．（3）．European co－ lonization and impact on African people from 1652 to date in Republic of South Africa，Rhodesia，and former High Commis－
sion territories， sion territories．［2205－1］

4284-6284. European Imperlallsm In Africa. (3). Selected case histories of European annexations of African territory, largely in histories of European annexations of African territory, largely in
period 1870-1900. Partition of Africa studied against the backperiod 1870-1900. Partition of Africa stu
ground of great power politics. [2205.1]
4292-6292. History of Modern China, 1800 to the Present. (3). [2205-1]
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. [2205-1] 4321-6321. History of Ancient Clyllizatlon I. (3). Ancient Near 4322-6322. History of Anclent Clvillzation 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 Islamic, Byzantine, and West European cultures through period of Investiture Controvers [2205.1]
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. Renaissance Europe, 1300-1520. (3). Transition from medieval to early modern institutions in Europe, emphasis on urban growth, capitalism, emergent nationalism, internaon urban growth, capitalism, emergent
tional diplomacy, and humanism. [2205-1]
4390-6390. Europe in the Age of the Reformation. (3). Charac. teristic 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. science,
[2205. I]
4402-6402. The Age of the Enlightenment. (3). Intellectual, cultural, social, and political developments in eighteenth-century Europe. [2205-1]
4440-6440. The Era of the French Revolution. (3). Origins and course of French Revolution in context of revolutionary and counter-revolutionary movements in Atlantic world. [2205-1]
4451-6451. Europe, 1815-1870. (3). [2205-1]
4452-6452. Europe, 1870-1914. (3). [2205-1]
4461-6461. Europe, 1914-1939. (3). [2205-1]
4462.6462. Europe, 1939 to Present. (3). [2205.1]

4503-6503. Disease and MedicIne In History. (3). How various diseases and the medical attempts to conquer them influenced economic, political, and social action throughout history. Emphasis on significant work in history of public health and speculation about im
ture. [2205.1]
ture. [2205.1]
4505. Cultural and Intellectual History of Europe I. (3). Topics in history of European culture and thought from classical Greece through high Middle Ages. [2205-1]
4506. Cultural and Intellectual History of Europe II. (3). Topics in history of European culture and thought from late Middle Ages to twentieth century. [2205-1]
4620-6620. Colonlal America, 1607-1763. (3). Political devel opment and institutions of English Colonies in America before 1763; Spanish, French, and Dutch colonization. [2205-1]
4630-6630. Era of the American Revolution, 1763.1790. (3). Origins and conduct of American Revolution. United States under Articles of Confederation, and writing and ratification of Constitution. [2205.1]
4641-6641. The Early American Republic, 1790-1825. (3). American history from unification until 1825. [2205-1]
4642-6642. The Jacksonlan Perlod, 1825-1850. (3). [2205.1]
4660-6660. Civil War, 1850-1865. (3). Division and conflict. [2205-1]
4670-6670. Reconstruction, 1865-1877. (3). America attempt ing to remake itself. [2205-1]
4680-6680. Emergence of Modern Amerlca, 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 War II. [2205.1]
4702-6702. United States from the Second World War. (3). The United States from World War II to present. [2205-1]
4811. United States Military and Naval History. (3). Develop. ments since colonial period; emphasis on background and growth of national military and naval establishments, military and naval thought, difficulties accompanying modernization and assumption of global responsibilities, and problem of relationship betw
racy. [2205.1]
4823-6823. American Labor History. (3). Historical development of labor movement in United States, emphasis on social, economic, and political trends related to labor movement. [2205.1]
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, polit. ical, social, and intellectual history of women in English American colonies and 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 in American history. [2205.1]
4996. Honors Thesis. (3). Under the direction of faculty mem ber, and with approval of the Honors Committee, student writes PREREQUISITE: admission to the Honors Program. [2205.8] Graduate Courses in History: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.

## MATHEMATICAL SCIENCES

PROFESSOR STANLEY FRANKLIN, Chairman

## Room 373, Dunn Mathematics Foreign Languages Building

The Department of Mathematical Sciences offers general courses in mathematics, statistics and computer science for students in all departments of the University, with specially de signed programs for the principal divisions of the University Courses which satisty specific graduation requirements of the 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. MATH 1000 provides remedial instruction in elementary algebra as preparation for MATH 1100; and MATH 1100, Intermediate AI gebra, 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. Students taking the placement examination may take it 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 in had all of its prerequisites must obtain permission of the in
structor and of the Chairman of the Department of Mathematistructor and
cal Sciences.

## E280 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 variables; radical expressions. RESTRICTION: This course satisfies no mathematics requirement for any degree. It is offered solely as preparation for MATH 1100. NOTE: No more than three hours credit in MATH 1000 and 1100 may be applied toward any degree pro gram. [1701-1]
1001. Intermedlate Algebra. (3). Set notation, first degree in equalities, absolute value equations and inequalities; opera tions on polynomials, operations on rational expressions; integral, fractional and negative exponents; operations involv ing 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 TIONS: This course satisties no mathematics requirement for any degree. It is offered solely as preparation tor College Alge 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 sef theory; systems of numeration; the real number system; algorithms; number sentences. [1701-1]
1003. Concepts of Algebra. (3). Relations and functions; equa:
tions: exponents: polynomials; applications. PREREOUSITE: tions; exponents; polynomials; applications. PREREOUISITE: MATH 1181.[1701-1]
1004. Nuclear Reactor Mathematics. (3). Review of number systems; topics in algebra including solving first degree equa tions, factoring, logarithms, and exponents; trigonometric func tions and their graphs; graphs and variation; topics in elemen-
tary probability: descriptive statistics. Taught only in the Center for Nuclear Studies. [1701.1]
1005. College Algebra With Business Applications. (3). Basic algebraic 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 1203 or MATH 1211 can be used to satisfy degree requirements. PREREOUISITE: Placement test rec. ommended, but not required; MATH 1100 or its equivalent. [1701.1]
1006. College Algebra. (3). Inequalities; quadratic equations; relations and functions; absolute value; exponential and logar ithmic functions; systems of equations and inequalities; ma trices; 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. PREREOUSITE: Placement test recomm
not required; MATH 1100 or its equivalent. [1701-1]
1007. Trigonometry. (3). Circular functions; inverse circular functions; graphs of circular and inverse functions; identities equations; angles; trigonometric functions; solution of trian gles; elementary application of vectors; trigonometric form of complex numbers. PREREOUISITE: 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 alge
and graphs; angle measurements; sum, difference, halfand double-angle for
1009. Elementary Calculus. (3). Introduction to concepts methods of elementary calculus of one real variable as re to rational, exponential, and logarithmic functions; natul derivatives; differentiation; application of derivative; natu integration; definite integral; applications of definite inte
NOTE: Only one of the courses MATH 1312 or 1321 ma used to satisfy degree requirements. PREREQUISITES: N 1182, 1203 or 1211 . [1701.1]
1010. Analytic Goometry and Calculus. (4). Essentials of lytic geometry of the plane with vectors; nature of derivat differentiation of algebraic and trigonometric functions; a cations of derivatives; basic concepts of integration and de not required.) NOTE: Only one of the courses MATH 131 1321 may be used to satisty degree requirements. CORE SITE: MATH 1212, 1213 or equivalent. [1701-1]
1011. Honors Calculus I. (4). Concepts and applications o erential and integral calculus presented from theoretical s point. PREREQUISITE: permission of Honors Committ [1701.1]
1012. Honors Calculus II. (4). PREREOUISITES: MATH and permission of Honors Committee. [1701.1]
1013. Selected Topics in Mathematics. (1-5). Prescribed: ject matter in mathematics not specifically covered elsewhe curriculum. Repeatable by permission of departmen
PREREQUISITE: permission of instructor. [1701-1]
1014. Mathematics of Finance. (3). Compound interest an nuities with applications; introduction to mathematics of li surance. PREREOUISITE: MATH 1203 or 1211. [1701.1]
1015. Analytic Geometry and Calculus. (4). Differentiation tegration and analytical aspects of elementary transcend functions; techniques of integration; limits and continuity
plications of definite integral; polar coordinates. PRERE plications of definite integra
STEE: MATH 1321. [1701.1]
1016. Analytic Geometry and Calculus. (4). Indeterm orms; improper integrals; vectors and analytic geometry space, partial differentiation; multiple integrals; infinite s PREREQUISITE: MATH 2321. [1701-1]
1017. Honors Mathematics III. (5). Introductory point set ogy; elements of abstract algebra. PREREOUSITE
1018. Honors Mathematics IV. (5). Topics in abstract alg and real analysis. PREREOUISITES: MATH 2401 and pe sion of Honors Committee. [170 1-1]
1019. Concepts of Geometry. (3). Introduction to idea of in postulational system; development of geometric rela shimilar triangles, parallelograms, and circles; applicatio number in geometry including coordinate geometry len areas, and volumes. PREREOUISITE: MATH 1182 . (1701-1.
1020. Matrix Thoory. (3). Matrix algebra; elementary o ions; equivalence; determinants; similarity, polynomial trices; matrix analysis;
1312 or 1321. [1701-1]
1021. Differential Equations. (3). Ordinary differential tions inc
1703.1]
4151.6151 . History of Mathematics. (3). Development of $r$ ematics from earliest times to present; problem studies; lel reading and class
equivalent. [1701-1]
4171.6171. Speclal Problems in Mathematics. (1-3). Din individual study in selected area of mathematics chosen in sultation with instructor. Repeatable by permission of
man. PREREQUISITE: permission of instructor. $1701-81$
4221-6221. Theory of Numbers. (3). Divisibility properti integers; prime numbers; congruences; diophantine equal quadratic residues; number theoretic
SITE: MATH 1312 or 1321. [1701-1]
4241-6241. Linear Algebra. (3). Systems of linear equa matrices and elementary row operations; vector space subspaces; inner product spaces; linear transformations; I 2321 or permission of instructor. [1701-1]
4261.6261. Abstract Algebra. (3). Groups; homomorph MATH 4241 or permission of instructor. [1701-1]
4350.6350. Advanced Calculus. (3). (3111). Real numbe tem, functions and sequences, limits, continuity, differ! ion, Riemann-Stieltjes integration, series of functions. REOUISITE: MATH 2322. [1701.1]
4351.6351. Advanced Calculus. (3). Integration th Riemann and Lebesgue integrals; partial differentiation mission of instructor. [1701-1]
4361-6361. Complex Variables. (3). Complex numbers; an functions; Cauchy-Riemann conditions; Taylor and Laure
ries; integration. PREREOUISITE: MATH 2322. [1701-1]
4391.6391. Applied Mathematics. (3). Laplace transft ourier series; introduction to partial differential equa PREREQUISITE: MATH 3391. [1703.1]
4392.6392. Applied Mathematics. (3). Partial differential tions. PREREQUISITE: MATH 4391. [1703.1]
1022. Senior Honors Seminar. (3). In-depth study of o more topics in mathematical sciences; emphasis on indi research and problem solving techniques; student write or Honors Students in mathematical sciences with permi of instructor. [1701-8]
4411.6411. Topology. (3). Introductory set theory; $r$ spaces; topological spaces; continuous functions; sepai axioms; separability and countability axioms; connecter mission of instructor. [1701.1]

## RTS AND SCIENCES

## COMPUTER SCIENCE (MATH)

10-6710. Computer Programming. (3). Programming of digicomputers, stressing algorithmic prober solving. BASic
1 FORTRAN programming languages and their application to nerical and non-numerical problems. Use of remote batch
noter nerical and non-numerical problems. Use of remote batch
ninals and interactive terminals. PREREOUSITE: MATH minals and interactive terminals.
3 or 1211 or equivalent. [0704-1]
11-6711. Advanced Computer Programming. (3). Elements
computer organization, machine language, forms of data computer organization, machine language, forms of data resentation and instructions and their effects on algorithmic grams. Operating systems. job control language, and use of grans. E: MATH 4710 or equivalent. (0704-1]
13-6713. Numerlcal Computer Methods. (3). Methods of nurical computation; interpolations; numerical differentiation integration; solution of algebraic and transcendental equa.
is; inversion of larger matrices, determination of proper vec. is; inversion of larger matrices, determination of proper vec. and proper values; solution of differential and integral
iations; estimation of error and error control. PREREQUIaations: estimation of error and error
E: MATH 4710 or equivalent. [0701-1]
15-6715. Artiflcial Intelligence. (3). Self-organizing systems, ormation theory, rational decision-making; pattern recogni, parametric and non-parametric training methods for de-
ping pattern classifiers; problem solving; heuristic promming and problem reduction search methods. REQUISITE: MATH 2321 and 4710 or equivalents.
01.11

1-6721. Numerical Analysis I. (3). Derivation and applicaof computer-oriented, numerical methods for functional roximation, differentiation, quadrature, and solution of ordi0 or equivalents. [1703.1]
2.6722. Numerical Analysis li. (3). Numerical methods for ing applied problems from calculus and differential equa-
s. PREREQUISITES: MATH 2321 and 4710 or equivalents. S. PR
03.11

1-6741. Linear Programming Me thods. (3). Theory of linear ramming methods, problem formulation; convex sets; sim. and revised simplex methods; matrix games and linear
ramming. PREREQUISITES: MATH 3241 and 4710 or gramming. PRER
5-6765. Information Structures. (3). Introduction to data ctures including lists, stacks, queues, trees, and graphs. ming, searching, sorting and merging. Machine represent-
$h$ of data structures. Information storage and retrieval. hof data structures. Information
REOUISITE: MATH 4710. (0701.1)
9-6769. Programming Languages. (3). Classification and cture of Programming languages. Syntactic description of ramming languages. Scope of declarations and relation.
to resource allocation. Recursive procedures, non-numeric to resource allocation. Recursive procedures, non-numeric suages, structured programming and language
intion. PREREQUISITE: MATH 4710 or equivalent. [0704.1] 1.6791. Topics in Computer Science. (1.3). Directed indial study or selected areas of computer science. Repeatable
ermission to 6 semester hours. PREREQUISITE: permisof instructor. (0701.8]

## STATISTICS (MATH)

. Elementary Statistics. (3). Basic statistical concepts; eletary probability theory, normal curve and applications; linmultiple, and partial correlation; statistical inference.
(1-6611. Statistical Methods I. (3). Binomial, hypergeomePoisson, multinomial and normal distributions, test of hy. keses, chi.square test, t-test, F-test, etc.; non parametric ncs at level of MATH 1211 or above. [1702-11]
He-6612. Statistical Methods II. (3). Introduction to analysis friance, regression and analysis of covariance. PREREQUI A: MATH 4611. [1702-1]
6-6613. Introductory Statistical Thoory. (3). Distributions Inctions of random variables; limiting distributions; correlasufficient statistics, point estimations. PREREQUISITE H 2321 . [1702-1]
1e-6631. Probability. (3). Basic concepts in probability, Fability models; applications. PREREQUISITES: 6 hours in njematics at level of MATH 1211 or above [1702-1]
$16-6671$. Topics in Statistics. (3). Recent developments in
tictical methods and applications. PREREQUISITE: permistical methods and ap
iofo instructor. [1702. 11
ir uate courses in Mathematics: For course descriptions and 4 er details of the graduate program, see The Bulletin of The ir uate School.

## PHILOSOPHY

## ASSOCIATE PROFESSOR NORMAN C. GILLESPIE, <br> Chairman

Room 319, Clement Humanittes Building

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

E330 PHILOSOPHY (PHIL)
Introduction to Philosophy. (3). Introduction to philosorough problems arising from man's reflection on nature ld and his place and conduct in it. Readings from classi-
d contemporary sources. [1509.1] Elememporary sources. [1509-1]
Elementary Logic. (3). Introduction to formal and inforeasoning that emphasizes logic as practical method for m solving [1509.1]
3001. Foundations of Western Phllosophy: Classlcal Period. (3). Introduction to history of philosophy from 7th century B.C through early Middle Ages structured around major themes that shaped classical period; attention to cultural and historical settings in which they arose and to which they contributed Readings from philosophical and nonphilosophical sources. [1509-1]
3002. Foundations of Western Philosophy: Modern Period. (3). Introduction to history of philosophy from late Middle Ages through 19th century structured around major themes that shaped the modern period; attention to cultural and historical shaped the modern period; attention to cultura and hisiorical seting in which they arose and to which they contribured Readings fhile this is a continuation of PHIL 3001, it may be taken separately. [1509-1]
3402. American Philosophy. (3). Development of philosophy in America. [1509. 1]
3411. Contemporary Moral Problems. (3). Such important con temporary moral issues as pornography and obscenity, capital punishment, abortion, human rights, "'reverse descrimination," and civil disobedience. Underlying philosophical ideas for each issue considered and discussed. [1509.1]
3451. ExIstentialism. (3). Historical and comparative study of different existentialist writers and their relation to literature, re ligion, and psychology. Readings from Kierkegaard, Nietzsche, Jaspers, Heidegger, Sartre, and Marcel. [1509.1]
3511. Ethics. (3). (2511). Critical analysis of classical ethical theories and their application to problems of individual and so ciety. PREREQUISIITE: one course in philosophy or permission of instructor. [1509.1]
3512. Science, Technology and Human Values. (3). Ethical 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 environ each semester. [1509 i] ${ }^{\text {] }}$. Specific content or course vani 3513. Professional Ethics. (3). Practice and codes of ethics of professionals in business, law, education and government from standpoint of contemporary ethical theory; attention to such is sues as conflict with public good, individual and corporate re sponsibility, free enterprise and social justice, and proper rela.
tion of professions to government and vice versa. Specific tion of professions to government and vice vers.
content of course varies each semester. [1509.1]
3514. Biomedical Ethics. (3). Discussion of ethical problems raised by contemporary medical practices and biological inno vations from standpoint of contemporary ethical theories in
cluding abontion, euthanasia, behavior modification, human ex perimentation and genetic engineering. [1509-1]
3621. Intermediate Logic. (3). Symbolic logic, including propositional calculus, lower functional calculus, and related topics. PREREQUISITE: PHIL 1611 or permission of instructor [1509.1]
3661. The Development of Scientific Thought. (3). Historical in troduction to science and scientific thinking; with selected read ings from both ancient and modern scientists and philosophers of science. PREREQUISITE: one course in philosophy or major in natural or mathematical sciences. [1509-1]
3662. Philosophy of Science. (3). Basic features of science. De tailed analysis of problems of scientific procedure, theory con PREREQUISITE: PHIL 1611 or 3661 or permission of instruc tor. [1509.1]
3701. God and Man. (3). Major religious movements of Western world with regard to their origin, doctrines and philosophica significance. Attention to contrasting conceptions of natura and supernatural and role of religion in man's understanding of himself and his society. [1509.1]
3711. Philosophy of Religion. (3). Philosophical issues raised by religious experience including classical and contemporary arguments for and against existence of God, meaningfulness of religious language, and concepts of faith, evil and immortality. PREREQUISITE: PHIL 1111 or permission of instructor
[1509.1]
3721. Oriental Philosophy. (3). Philosophies of India, China, and Japan, with readings from primary sources of Hinduism, Jainism, Buddhism, Confucianism, Taoism, and Shintoism. [1509.1]
3771. Philosophy in Literature. (3). Expression of philosophical ideas in literature. Readings from philosophers, playwrights, novelists and poets. [1509-1]
4211-6211. History of Ancient Philosophy. (3). (3211). Se lected readings from primary sources, supplemented by com mentary from antiquity and modern scholarship, including Pre SITE: PHIL 3001 or permission of instructor. [1509-1]
4311-6311. History of Modern Philosophy. (3). (3311). Critical survey of major philosophers of 17 th and 18 th century with special attention to metaphysical and epistemological issues that divided Rationalism and Empiricism. Readings from Des cartes, Spinoza, Leibniz, Locke, Berkeley. Hume, and Kant PREREQUISITE: PHIL 3002 or permission of instructor
$[1509-1]$ [1509-1]
4422.6422. Recent Anglo American Philosophy. (3). Major de velopments in philosophy in England and United States from 1900 to presen; reading from such philosophers as Russell other contemporary authors. PREREQUISITE: PHIL 3002 or 4311 or permission of instructor [1509.1]
4440.6440. Philosophy of the Nineteenth Century. (3). (3372). Extensive reading in representative 19th century philosophers from Fichte to Nietzsche; attention to German Idealism (espe cially Hegel) and reaction against it (left and right wing Hegel ianism, Marx, Kierkegaard, Nietzsche) as well as utilitarianism,
Darwinism, and rise of positivism. PREREQUISITE: PHIL 3002 or 4311 or permission of instructor. [1509.1]
4441-6441. Recent Continental Philosophy. (3). Primary texts of mainstream of contemporary continental thought: phenome nology (Husserl, Heidegger), structuralism (Barthes, Foucault, Derrida), and critical social theory (Horkheimer, Adorno, Haber
mas). PREPREQUISITE: PHIL 3002 or 4311 or 4440 or permis
sion of instructor. [1509.1]
4521.6521. Contemporary Ethical Theory. (3). Contemporary ethical theories; emphasis on problems that any adequate theory must solve. Readings from classical and contemporary tor. [1509.1]
4531.6531. Phliosophy of Law. (3). Introduction to theories of egal reasoning and basic principles of jurisprudence. For preaw students and others pursuing law related careers. Topics include concept of law, legal realism, stare decisis, equity juris. prudence, 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, SITE: one course in philosophy or permission of instructor. [1509-1]
4632-6632. Advanced Loglc. (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 ex pression in painting, sculpture, music, and other art forms PREREQU
4801.6801. Systematlc Topics in Philosophy. (3). Epistemol ogy, 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 for maximum of 15 hours credit without changing an earlier grade philosophy or permission of instructor. [1509-1]
4891. Senior Honors Thesis. (3). Directed reading and research culminating in a Senior Thesis. Thesis topic to be selected by student with approval of his director before semester student intends to take course. Open only to senior honors students majoring in philosophy. [1509.8]
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. Foundations of Physics. (3). Certain basic principles of science; particular stress on nature of physics; designed for student who has had no previous tralning in physics. Two lecture, two laboratory hours per week. Credit will not apply toward major or minor in physics, chemistry, or physical science, nor
will it satisfy any part of science requirements in pre. will it satisfy any part of science requirements in preprofessional curricula. [1902-1]
1112. Foundatlons 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. ply to major or minor in physics, chemistry or physical science. nor will it satisty any part of
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). Emphasis on survey of stellar and galactic astronomy; Includes stellar distances and properother galaxies. Occasional observation periods at night. Two other gataxies. Occasionaurs observation periods
lecture, two laboratory hours per week. [1911.1]
1115. Generai Physics. (4). Mechanics, heat, and sound; re quired of all technology, premedical, pre-dental, and pre pharmacy students. Three lecture, two laboratory hours per week. PREREQUISITE: MATH 1212. [1902-1]
1116. General Physics. (4). Continuation of PHYS 2111; includes magnetism, electricity, light, and modern physics. Three 2111. [1902-1]
1117. Physics for Science and Engineering. (4). Prumarily 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 week PREREQUISITE: MATH 1321. [1902-1]
1118. Physlcs for Science and Engineering. (4). Continuation of PHYS 2511. Three lecture, two laboratory hours per week. PREPHYS 2511. Three lecture, two labo
REQUISITE: PHYS 2511. [1902-1]
1119. Special Topics in Applied Physics. (3). Applied areas of physics, including optics, electronics, acoustics, and radiation. Experiments and projects of special interest to student. Three course may not be counted toward a major in physics. [1902.8]
30t0. 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]
1120. Blophysics. (3). Selected topics from biophysics; with emphasis on understanding of basic physical principles and
their relation to biology and medicine. Three lecture hours or the equivalent laboratory hours per week. [04 15-1]
1121. 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 lec ture hours per week. PREREQUISITE: PHYS 3111. [1902-1]
1123. Electricity and Magnetism. (3). Electromagnetic fields and waves, including such topics as dielectrics, induced electromotive force, magnetic energy, magnetic materials, Maxwell's equations, and reflection and refraction. Three lecture hours per week. [1902.1]
1124. Electricity and Magnetism. (3). Contınuatıon of PHYS 3211. Three lecture hours per week. PREREQUISITE: PHYS 3211. [1902-1]
1125. Electronics. (4). Theory and applications of electronic de vices such as vacuum and gas-filled tubes, photoelectric cells, and semi conductors, with particular emphasis on basic electronic circuitry and laboratory instrumentation. Three lecture, three laboratory hours per week. [1902. 1]
1126. Experimental Techniques. (1). Introduction to independ ent experimentation including shop practices, glass biowing. and preparation of experimental data for computers. Some ex periments of traditional nature related to physics courses Three laboratory hours per week. PREREQUISITE: junior stand
ing or permission of instructor. [1902-8]
1127. Experimental Techniques. (1). Continuation of PHYS 3610. Three laboratory hours per week. [1902.8]
1128. Advanced Experimental Physics. (1). Advanced classical and modern laboratory experiments; emphasis on effective planning and performance of experiments with appropriate in. terpretation of data. Three laboratory hours per week. (1902-8)
1129. Advanced Experimental Physics. (1). Continuation of PHYS 4010. Three laboratory hours per week. [1902-8]
1130. Applied Radiation Physics. (3). Applied radiation and radioactivity. Includes types of radiation, radiation measurement, interaction with matter, and biological effects. Radiation safety aspects emphasized. Three lecture hours per week. PREREQUI aspects emphasized. $25 r e e$ lecture hours per week. i)
SITE: PHYS 2112 or 2512 and MATH 1321. (1902.1)
1131. Applied Radiation Physics. (3). Continuation of PHYS 4021. Three lecture hours per week. PREREQUISITE: PHYS 4021. (1902-1)
1132. Radiation Physics Laboratory. (3). Radiation and radıo activity. Experiments emphasize measurement and characterization of radiation and radioactive materials. Four laboratory zatiors per week. PREREQUISITE: PHYS 4021. [1902. 1]
4051.6051. Astrophysics. (3). Application of radiation laws to interpretation of stellar structure. Introduction to radiative transter in atmospheres. Spectral and luminosity classification of stars. Stellar populations and evolution. Three lecture hours per week. [1912.1]
4110.6110. Nuclear Physics. (3). Properties of atomic nuclei, radioactive transitions, alpha, beta, and gamma decay. Binding energy, nuclear forces and nuclear models. Three lecture hours per week. [1904.1]
4211.6211. Optics. (3). Brief review of geometrical optics; con centration on wave optics. Includes polarization phenomena, in terference, diffraction, coherence, holography, and scattering. Three lecture hours per week. [1902. 1]
1133. Reactor Physics. (3). Theory and operation of nuclear reactors as energy source for large scale power operation, includ. ing fundamental concepts of physics applied to production and control of nuclear chain reactions. Three lecture hours per week. PREREQUISITES: PHYS 2111 and 2112 or the equiva. ient. [1904.1]
44 10.6410. Introduction to Quantum Theory. (3). Experimental basis of quantum theory; development of Schrodinger equation and its solution of simple systems; selected applications in atomic and molecular structure. Three lecture hours per week
[1902-1] 4510.6510. Thermodynamics. (3). Mathematical treatment of thermodynamics, including such topics as work, energy, en thalpy, entropy, reversible and irreversible processes, equilib. ria, specific heats, and phase transitions. Three lecture hours per week. (1902.1]
4610.6610. Solid State Physics. (3). Such topics as lattice vi brations, specific heats, electrical and thermal conductors in solids, magnetism. Three lecture hours per week. [1902.1]
1134. 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: Fourier series. Three lecture hours per week. PREREQUISITE: PHYS 2512 . [1902.1]
1135. Seminar. (1). Special projects, reports and investigation of current literature and research. May be repeated for maximum of 2 semester hours credit. PREREOUISITE: permission
of instructor. [1902-8] Graduate courses in Physics: For course descriptons and further details of the graduate program, see The Bulletin of The Graduate School.

## POLITICAL SCIENCE

PROFESSOR H. PIERRE SECHER, Chairman

## Room 427, Clement Humanties Building

[^6]E370 POLITICAL SCIENCE (POLS)
1100. American Government. (3). (2211). Origins of our sys tem of government, framing of Constitution, principles underly. ing constitutional government, citizenship, civil rights, political institutions, national executive, congressional organization and functions, and judicial process. [2207. 1]
1101. Basic Issues of Politics. (3). How people distribute power, confer authority, resolve conflict, and pursue goals within a political system. [2207.1]
2301. Comparative Politics. (3). Introduction to comparative study of politics with application to selected countries. [2207-1] 2501. International Politics. (3). Relationships among nation states, ranging from war to cooperation; emphasis on both do mestic and external determinants of state action. [2210-1]
3100. Political Inquiry. (3). Research process in political sci ence; emphasizes skills common to all subfields of political sci nce-familiarity with sources of data and documents, esearch design and general analytic skills. [2207.1]
3211. State and Local Governments. (3). Role of state govern ments in Federal System, political institutions, elections; organ zation, functions, and problems of state government; empha sis on Tennessee government. [2207.1]
3213. Introduction to the Study of Public Policy. (3). Public policy formulation process and some of the major substantive areas of policy concern in America. Emphasis on framework for identifying and analyzing substance of public problems, policy making, and policy administration. [2207-1]
3216. Political Parties. (3). Politıcal party as process of govern ment; emphasis on party organization, activities, nominating and campaign methods, voter participation, and two party sys
tem. [2207.1]
3224. Urban Politics. (3). Functions and role of government in urban America in context of urban politics and social, eco nomic, and governmental problems of cities and suburbs. [2207-1]
3302. Western European Government and Politics. (3). Com parative study of selected political systems of Western Euro pean States. [2207.1]
3306. Latin American Government and Politics. (3). Forms o organization. functions and operations of government in Latin America. Emphasis on development of political institutions and present day trends. [2207-1]
3307. Government and Politics of South Asia. (3). Political insti utions and governmental processes of selected South Asian states. [2207.1]
3309. Government and Politics of North Africa and Middle East. 3). Analysis of organization and functions of governments in rea dominated by tenets of Islam, including examination of or gin and development of Arab-Israeli conflict. [2207-1]
3401. Western Political Thought to 1600. (3). History, forma ion, and development of political thought of West, from politi cal philosophers of ancient Greece to seventeenth century.
3402. Western Political Thought Since 1600. (3). History, for matıon, and development of western political thought from sev enteenth century to present. [2207.1]
3405. Introduction to Law and Jurisprudence. (3). Sources, functions, and processes of law. [2207.1]
3505. International Organization. (3). Origins, structure, func tions, and evolution of selected international organizations. The United Nations and/or regional and functional organizations serve as basic references. [2210 1]
3506. American Foreign Policy Process. (3). American foreign policy; emphasis on factors involved in developing and imple menting policy. [2207-1]
3601. Public Administration. (3). Concepts and practices of or ganization and management in executive departments, na tional, state, and local; analysis of bureaucracy, administrative theory, budgeting, personnel, and administrative leadership. [2102.1]
4101-6101. Techniques of Political Analysis. (3). Introduction o analysis of quantitative data used to test hypotheses in fields political science and public administration, including both parametric and nonparametric techniques. Particular attention to alternative measures of association and significance, regres
sion, factor analysis, path analysis, and casual meeting. (2207.1)
4102.6102. Political Behavior. (3). Introduction to contrib utıons of behavıoral sciences to understanding of political sys em. Political behavior as manifested in formation of attitudes, public opinion, group organization, and political power [2207.1]
4103.6103. Political Socialization. (3). Process whereby political attitudes and values passed from one generation to next and altered in transmission. Includes quantitative measure ment of political attitudes. [2207.1]
4211-6211. Constitutional Law: National Powers. (3). Relation ships and controls of three branches and nature of division o power between nation and states; emphasis on role of Supreme Court as arbiter in constitutional system. [2207.1]
4212.6212. Constitutional Law: Civil Liberties. (3). Judicial in terpretation of political and civil rights; 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, deci son making process, limitations on presidential power and role of Chief Executive in a democratic system. [2207.1]
4215.6215 Constitutional Policies 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: Court in conflict with ther branches of the national government, the state govern ments, and public opinion. [2207.1]

4216-6216 Interest Groups in the American Political Sys 3). Role and impact of selected interest groups with A ships with various governmental institutions. [2207.1]
4217.6217. The Legislative Process. (3). Origins, organiza functions, and activities of modern legislature; making laws pervising the administration, representing and informing
ple. [2207.1] (12207.11

18-6218. Public Opinion and Politics. (3). Formation, $n$ urement and content of public opinıon about political iss
Includes a public opinion poll of local community. [2207.1] 4221-6221. Urban Administration. (3). Politics, administra and public policy in urban context. Focus on administrativ ecrel of selected governmental policy-making process terrelationships of governments at various levels; ur
lenges facing modern public administrators. [2102.1]
4224-6224. Urban Problems. (3). Selected probiems in administration, politics, and policies. [2214.1]
4225.6225. The Courts and Urban Policy. (3). Courts as $p<$ makers in urban realm. How, why, and to what extent Cl institutional competence of judiciary to deal with these mat [2207.1]
4230.6230. Legislative Internship. (3.12). Supervised in ship working with Tennessee General Assembly or other les, tive bodies on current legislative programs. Seminar sess to discuss and analyze problems with which interns wor:
May be repeated for total of 12 credits. PREREQUISITE: May be repeated for total of 12
mission of department. [2207.5]
4231. Administrative Internship. (3-12). Supervised inter working with administrative branches of national, state, or governments. Seminar sessions to discuss and analyze lems with which interns are working. May be repeated for [2207.5]
4305-6305. Soviet Government and Politics. (3). Organiz and functions of authoritarian stat
munist Party and ideology. [2207. 1]
4306.6306. Contemporary Latin American Politics. (3) emporary problems in Latin American politics and American relations. [2207. 1]
4307.6307. Government and Politics of Communist China. ins [2207.1]
4309.6309. Comparative Political Parties. (3). Political pa and party systems in selected countries. [2207.1] 4311.6311. Comparative Political Elites. (3). Role of pol elites in seleeted political systems. [2207.1]
4313.6313 Comparative Public Policy. (3). Formation anc plementation of major sub
4399.6399. Research and Studies Abroad. (1-6). Super field research and studies in selected foreign countries. M repeated up to six hours. [2207.8]
4401-6401. Modern Political Ideologies. (3). Major ideolc affecting modern politics. Includes ideologies of democ racism, and nationalism and ideologies of developint ' 'thırd" and "fourth world"' nations. [2207.1]
4403-6403. Contemporary Protest Thought. (3). Political ies of recent and contemporary protest. Subject matter $v$ according to what currently excites political protest; but $r$ new left, the new right, women's liberation, ecology and eni new left, the new right, women's liberation
and consumer's movements. [2207.1]
4405.6405. American Political Thought. (3). Analysis of $F$ cal thought in United States from colonial to present time; phasis on relation between political thought and political in! tions and practices. [2207.1]
4407-6407. Black Political Thought. (3). Analytical surve black political thought from colonial period to present. Em sis upon recent and contemporary thought. [2207.1]
4501.6501. Contemporary Problems in International Pol (3). Emphasis on major powers [2210.1]
4502.6502. Soviet Foreign Policy. (3). Basic concepts of $\mathbf{S}$ foreign policy; development and techniques; present patt relationships. [2207 1]
4503-6503. Inter-American Relations. (3). Political rela gional organization and relations with Cuba [2210.1]
4504.6504 . International Law. (3). Nature, scope, rights, and evolutionary trends of international law. [2210 4505.6505. Comparative Communist Systems. (3). C communist parties to different political environments. Inci examination of inter party and intra block relations. [2207.
4506-6506. Problems of American Foreign Policy. (3). A can foreign policy problems taken from specific areas or is of policy. 2207. 1
4507.6507. Problems of European Politics. (3). Selected F cal problems of European states. [2207.1]
4508.6508. Theorles and Concepts in International Pol (3). Theoretical approaches to study of international politic tention to method
ulation. [2207.1]
4509.6509. Comparative Foreign Policies. (3). Foreign pol of major actors (nation-states, groupings such as oil produ
nations of OPEC, and other entities) in world politics. [2207
4602-6602. Public Finance Administration. (3). Detailed ! of administrative and political problems of fiscal policy, but ary process, and fiscal controls. [2102.1]
4603.6603. Public Personnel Administration. (3). Poli methods and techniques utilized in public personnel adn mands upon personnel organizations. Capacity to analyze I
; select most effective means of dealing with them, and appr
4-6604. Problems of Public Administration. (3). Problems ublic administration
lopments. [2102-1]
1.6611. Administrative Law. (3). Role and nature of admintive law, including procedural requirements and judicial reof administrative actions and liability of government for and breach of contract. [2207.1]
5-6615. Comparative Administration. (3). Investigation of loped and developing nations. [2207.1]
5-6625. Intergovernmental Relations in the United States. Interdependencies and relations between governmental ctures and organizations in American system; emphasis on lems of conflict and coordination. [2207-1]

1. Senior Seminar in Political Science. (3). Review of pro-
onal literature generally or in particular area of political scional literature generally or in particular area of political scicomb. PREREQUISITES: senior standing and political scimajor. [2207-1]
2. Independent Study. (3). Independent investıgation of rech problem or directed reading in selected area of politica nce under tutorial supervision of member of chairman.
7.81
5.6705. Special Topics in Public Issues. (3-6). Topics of ent significance in public issues. May be repeated for maxi of 6 hours credit. [2207-1]
-6801. Science and Politics. (3). Multiple interactions ben the political systems and scientific and or technological lopments. Emphasis on complexities surrounding relatıon between public policy and science, as exemplified in gov ient decisions and actions regarding support, use and cor
2.6802. Sex and Politics. (3). Legal and political rights ane s of both sexes; relationship of government to various 5 of sexual activity. [2207-1]
uate Courses in Political Science: For course descriptions further details of the graduate program, see The Bulletin of Graduate School.

## PSYCHOLOGY

PROFESSOR MILTON TRAPOLD, Chairman

Room 202, Psychology Building

1101 or 1102 is prerequisite for all other courses in the
rtment of Psychology; both 1101 and 1102 are required of hology majors.

## E390 PSYCHOLOGY (PSYC)

9. Psychological Principles and Personal Effectiveness. (3). hose planning to take only one psychology course Intro on to basic psychology in the context of personal adjust-
Emphasis on how psychological principles and data gen. tactics for more effectively managing one's behavior anc vions in relation to commonly encountered situations such ;ork, school, family, marriage, etc. [2001-1]
10. General Psychology I. (3). Introduction to social aspects ychology as a science of behavior. Areas of study include 2onality, abnormal behavior, psychotherapy, social and demen
11. Gel
12. General Psychology II. (3). Introduction to the biological juts of psychology as a science of behavior. Areas of study kpe learning, sensation and perception, physiological and
arative psychology, and psycho-pharmacology. [2001.1]
13. Psychological Statistics. (3). Introduction to use of statisIn psychology, with emphasis on elementary theory of reurement and computation. Topics include measures of alal tendency and variability, tests of significance, correlaoprocedures, and an introduction to multivariate analyses,
n.sis of variance, and nonparametric procedures. [2007.1]
14. Introduction to Psychological Research. (3). Survey of $h$ and an overview of the range of observation measureh and laboratory procedures employed, and presentations te and laboratory procedures employed, and presentations EISITE: PSYC 2301. [2002-1]
15. Psychology of Personality. (3). Development, organiza-
oland assessment of the normal person is examıned, with an itliuction to theories of personality. [12001.1]
16. Abnormal Psychology. (3). Basic concepts of psychopaay with emphasis on the development of behavior devianen introduction to methods of psychotherapy. [2003-1]
17. Child Psychology. (3). Patterns of cognitive, interperor and behavioral development from birth through early adarental influences as the chid matures. [2009.1]

Adult Psychology. (3). Patterns of cognitive, to old age. The theoretical and empirical literature perg to such topics as marital and vocational choices, parent e midlife crises, and death. [2009.1]
Social Psychology. (3). (3302). Analysis of the behavior perience of individuals in group settings, examining such as leadership, social influence, and inter group and intrarelations. [2005-1]
3199. Special Topics in Personality, Psychopathology and Development. (3). In depth coverage of topics not treated sufficiently in the other $31 .$. series of courses. Particular topics each semester will be advertised in the department prior to registration. [2001.1]
3304. Sensation and Perception. (3). (4203). Survey of the major senses. methods used to study them, and applications of this knowledge. Perceptual and related interpretative process that operate upon sensory information, and relationship of
those processes to learning and motivation. [2002-1]
3305. Learning and Memory. (3). (4204). Survey and analysis
of the basic processes involved in acquisition and retention of of the basic processes involved in acquisition and retention of new behaviors and alteration of existing behaviors in animals and humans. Examination of sor
and issues in learning. [2002-1]
3306. Physiological Psychology. (3). (4201). Survey of physiological processes underlying sensation, perception, motivation and emotion, motor systems, unlearned and learned behavior patterns, memory and other psychological functions. [2002-1]
3307. Animal Behavior. (3). (4202). Synthesis of comparative psychological and ethological approaches to study of animal behavior. Such topics as behavior genetics, species specific behavior. Such topics as behavior genetics, species specific behaviors, behavior as a rasted to phylogenesis, etc. [2002-1]
3399. Special Topics in Experimental Psychology. (3). Indepth coverage of topics not treated sufficiently in the other $31 \cdots$ series of courses. The particular topics to be covered each semester will be advertised in the department prior to registration.
$[2001.1]$ [2001.1]
3501. Psychological Principles in Law Enforcement. (3). Application of psychological principles to law enforcement. Law enforcement both at the institutional level and at the level of the individual police officer dealing with the public. [2001.1]
3502. Psychological Testing. (3). (4301). Essentials of testing, emphasizing the concepts of reliability and validity; limitations of psychologıcal tests; familiarization with standardized interests, aptitude, achievement, intelligence and personality tests; practical experience with some "paper-and-pencil" group tests:
questionnaire construction and administration. PREREQUIquestionnaire construction and administration. PREREQUI-
SITES: PSYC 2301 and 3101 . [2006.1]
3503. Introduction to Clinical Psychology. (3). (4302). Survey of history of clinical psychology: services provided by clinical psychologists; different strategies of diagnosis and therapy: interviewing techniques and practice in the use of these techniques. Field trips to institutions utilizing clinical psychologists. [2003.1]
3504. Behavior Modification. (3). (4303). Instruction in the techniques of behavior modification, including observational procedures, methods of remediation, data recording and report writing. PREREQUISITE: PSYC 3102. [2003.1]
3505. Theory and Research in Community Mental Health. (3). (4304). Community and preventive mental health movement in clinical psychology. Social-psychological models, critical evalua tion of community mental health interventions, and review of environmental design practices and work with low socioeconomic 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 deter mined by performance during 5 hours per week of supervised community research. [2099-9]
3506. Human Sexuality. (3). (3105). A survey of existing knowledge of human sexual behavior, including physiological, anatomical, psychological and cultural components. Focuses primarily on normative sexual functioning, such topics as sexual deviation, sexual dysfunctions, and types of treatment are also
considered. PREREQUISITES: PSYC 1101 and $1102 .[2001.1]$
3507. 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 mantenance of drug abuse, and review of prominent strategies for prevention, intervention and treatment. [2011-1]
3508. 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 'psychological analysis of the condition of work. [2008-1]]
3599. Special Topics in Applied Psychology. (3). In depth coverage of topics not treated sufficiently in the other 35 .. series of courses. Particular topics each semester will be advertised in department prior to registration. [2001. 1]
3600. Honors Seminar in Psychology. (3). Reserved for students entering the Honors Program in Psychology. Introduction to the psychological research activities within the Psychology Department and to the scholarly literature which preceded and has resulted from this research. PREREQUISITE: admission to the Honors Program in Psychology. Students enrolled in honors programs elsewhere in the University may also enroil, after re.
ceiving permission from the Director of Honors in Psychology. [2001.1]
4101. 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. Senior Seminar In Psychology. (3). Current theoretical issues and experimental studies in psychology; open to outstand ing advanced students by invitation of the faculty. [2001-1]
4503. Special Problems in Psychology. (1-3). Student, under faculty supervision, may (a) read intensively in specialized area, (b) conduct psychological research and/or (c) obtain tield expe. rience 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 fac. ulty member. PREREOUISITE: permission of the department. ( $\mathrm{S} / \mathrm{U}$ ) [2001-8]
4600. Honors Thesis in Psychology. (1-6). Supervised individ ual research project. Reserved for students enrolled in the Honors Program in Psychology. Students receive one credit hour
for every 50 hours devoted to the thesis iproject, up to a maxi-
mum of six credit hours. PREREQUISITE: good standing in the
Honors Program in Psychology. [2001.8] Honors Program in Psychology. [200 1.8]
4601. Advanced Studies 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 Bulletn.

# SOCIOLOGY AND SOCIAL WORK 

PROFESSOR JERRY B. MICHEL, Chairman
Room 231, Clement Building
Sociology 1111 is a prerequisite for all other courses in sociol. Sociology 1111 is a
ogy and social work.

## E410 SOCIOLOGY (SOCI)

1111. Introductory Sociology. (3). Nature and significance of interaction and culture; social organization and processes; social and cultural change. [2208-1]
1112. Contemporary Social Problems. (3). Investigation, analy sis, and discussion of current social problems. [2208-1]
1113. Practitioner Perspectives on the Health Professions. (1). Social organizational aspects of medical practitioners' profes sional lives as presented by representatives of various medical fields. Designed only for students who have chosen medical ca reers. No prerequisite. [2208.1]
1114. Social Statistics. (3). Application of basic statistical concepts and techniques to social analysis. Description of data for single variables and for relationships between two variables Tests of significance for relationships between two variables in volving sample data. Use of packaged statistical computer pro grams for single and two variable analysis. [2208.1]
1115. Methods of Social Research. (3). Overview of process of social research; selection and formulation of problem, design of research, methods of investigation, analysis and interpretation of data, and report preparation. Emphasis on data collection techniques. PREREQUISITE: SOCI 3311. [2208.1]
1116. Social Inequality. (3). Unequal distribution of power, property, and prestige; how and why this inequality occurs; and the resulting social strata such as "class" and "status group" [2208. 1]
1117. Social and Ethnic Minorities. (3). (Same as ANTH 3422). Comparative study of social and ethnic minorities in United States and elsewhere; with a focus on differences in cultural backgrounds, social relationships with larger society; social, ed ucational, and legal problems; factors contributing to satisfac tory and unsatisfactory adjustments of minorities. [2208-1]
1118. Sociology of Sex Roles. (3). Traditional conceptions of masculinity and femininity and modifications of these resulting from economic, demographic and cultural changes. Socializa tion for masculine and feminine roles and variations in these
roles throughout life cycle. Class, race, occupational and other roles throughout life cycle. Class, race, occup
institutional differences in sex roles. [2208-1]
1119. Sociology of Deviant Behavior. (3). Contemporary theo ries of deviant behavior; major types of deviation in American society; relationship of deviant behavior and social disorganiza tion to social change. [2208-1]
1120. Criminology. (3). Nature and significance of criminal behavior; statistics of criminal behavior and criminals; trends in social reactions to criminal behavior and criminals. Develop ment and nature of theories of criminal behavior. Current pro grams for treatment and prevention of criminal behavior. [2209.1]
1121. 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. PREREOUI SITE: SOCl 1111 or instructor's permission. [2208.1]
1122. Introduction to Social Psychology. (3). Basic theory and research dealing with study of human behavior in social situa cial roles, social self, and interaction in group contexts.
[2005-1]
1123. Collective Behavior. (3). Emergence of collective behav ior, spontaneous collectivities, social movements, social consequences of restrictive collective behavior. [2208-1]
1124. Sociology of Formal Organizations. (3). Formal organiza. tions in society and their effects on individual and group behav ior. Emphasis on nature of bureaucracy-in business, educa-
tional, political, welfare, military, religious, and other organ izations. [2208.1]
1125. Educational Sociology. (3). Sociological analysis of education and its functions; school and community relationships; problems of social change and educational adjustments. [2208-1]
1126. Marriage and the Family. (3). Marriage and the family in contemporary society. Interrelationships with other major socia institutions, mate selection, marital adjustments; parental and family disorganization. Contemporary changes and conflicts in marriage and family. [2208. 1]
1127. Industrial Sociology. (3). Social characteristics of business and industrial organizations; role of the consultant in per nnel organization and human relations programs. [2208-1]
1128. Sociology of Religion. (3). Role of religion in social sys tems; reciprocal influence of religion and modern society; sociological analysis of religious organizations and the roles
which comprise them; social correlates of religious opinions which comprise them; social correlates of religious opinion and attitudes. [2208-1]
1129. Political Sociology. (3). Sociological examination of political institutions; cultural and social factors associated with polit. ical structure, political attitudes, and political behavior; political decision-making as sociological process; comparative and methodological study of social movements and political parties. [2208.1]
1130. Mexican Soclety and Culture. (3). (Same as ANTH 3930) Mexico's social development, population, contemporary institu tions and cultural patterns, the family, the community and ur ban society, minority group relations, and social problems. [2208.1]
1131. Social Change. (3). Sociological analysis of theory, nature, meaning, and consequences of social change. [2208.i]
1132. Rise of Soclological Theory. (3). Development of sociological theory; emphasis on period from Comte to "Chicago School." [2208-1]
4211-6211. Contemporary Sociological Theory. (3). European contributions, American developments and recent trends in so ciological theory. [2208-1]
4312.6312. Intermediate Social Statistics. (3). Multivariate analysis of social data. Use of computer programs for data management and statistical analysis. PREREQUISITES: SOC 3311,3322 , or equivalents, or permission of the instructor. [2208-1]
1133. Field Problems in Soclal Research. (3). Application of sociological knowledge and methodological skill to research pro jects in community. Work on projects in cooperation with social and human service agencies and other community organizations. Writing of project reports. PREREQUISITE: SOCI 3322. [2208-1]
1134. Race Relations. (3). Ethnic organization and interrela tions; emphasis on status of Negro in American society, proc ess of integration, on theoretical explanations of prejudice. [2208-1]
1135. Sociology of Pcuerty. (3). Distribution of poverty and af. fluence in contemporary and industrial society. Etfects of por erty on individuals and society. Theories of poverty. [2208-1]
1136. Juvenile Delinquency. (3). Trends of juvenile delinquency; development of case study techniques and diagnosis of uvenile delinquency; comparative analysis of various theoreti cal approaches. [2208.1]
4541-6541. Social Gerontology. (3). Ageism in sociocultural contexts; current beliefs, values, and norms regarding aging; geism in ocation of aging in society; and implications ing, crime, physical illness and mental illness. [2208-1]
4620-6620. Human Ecology. (3). Spatial structure and land use patterns of urban, rural, and fringe areas; city growth, its spafial and communicative extension into suburban and rural ar eas, and impact on economy, values, and social organization of communities. [2208-1]
1137. Cities in Change. (3). Cities; their basic historical and modern development, power structures, social institutions and elationships; future of the city. Problems of contemporary cit racial segregation. Processes of change in urban environment. [2214-1]
1138. Public Opinion and Propaganda. (3). Nature and development of public opinion; roles, both actual and potential, of communication and influence. [2208-1]
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: SOCI 3322. [2208-1]
1139. Sociology of Adolescence. (3). Social aspects of adolescence. Emphasis on socialization into youthhood, changing nature of adolescence in industrial societies, conflict of institu. tional demands with peer group membership, self-identity problems, values of youth subcultures and contracultures. [2208-1]
4842-6842. Soclology of Occupatlons 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]
1140. Medical Soclology. (3). Sociological analysis of definition and distribution of physical illness and society's response to its and distribution of physical ollness and society's response to its
occurrence, focusing on roles of patient, physician and anciloccurrence, focusing on roles of patient, physician and ancil-
lary professionals within contemporary medical settings, particlary professionass withity contemporay
ularly the modern hospital. [2208-1]
1141. Sociology of Mental Iliness. (3). Sociological analysis of definition and distribution of mental illness and society's re sponse to its occurrence, focusing on social organizational provision for professional and patient roles within contemporary therapeutic settings. [2208-1]
1142. Special Topics in Sociology. (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]
1143. 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 credit. PREREQUISITE: permission of department chairman. [2208-8]
1144. Senior Seminar in Soclology. (3). Current theoretical is. sues 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 wel rare system: its basic principles, social values, and underlying assumptions regarding societal responses to human need. Fun damental historical, philosophical, political, economic, social, and psychological influences contributing to contemporary in stitutions of social welfare. [2104-1]
2912. Professional Social Work in Contemporary Society. (3). Social work as a profession within social welfare institution; val. ues, 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 in structor'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 cultural variable impact of critic
2914. [2104.1]
2915. Models of Social Intervention. I. (3). Theories and cepts in social work, including introduction to case work, work and community organization. Emphasis on case SWRK 2911 and 3902 and permission of Director, Divis Social Work. [2104.1]
2916. Models of Social Intervention II. (3). Emphasis on lem.solving models, assessment, interventive planning, commuse analysis PR, and functions of social workers:
2917. Dynamics of Professional Interviewing. (3). Models, niques and skills in relationship building, types and styles terviews; interaction patterns between client and social w observational and experiential activities, role-playing and
tape. PREREQUISITE: SWRK 3903. COREQUISITE: 3904. [2104.1]
2918. Human Development and Social Interaction II. (3). work approach to evolving adult person; focus on matura crises and their impact on social functioning and role of wiewing social networks. Bio-psycho-socio-cultural fram organizational, and community realitities, resources, and raints. PREREOUISITE: SWRK 3902. [2 104-1]
2919. Field Instruction in Social Work. (3). Educational cused, practice-oriented field work in wide range of socia human service agencies, both established and newly eme for individual, group, and community needs; 12-16 UISITES: SWRK 3903 and permission of Director, Divisi Social Work. [2104.5]
2920. Topics in Specialized Social Services. (3). Topics in: needs and services; two to four areas related to student in and emerging service needs. Directed by staff, with le Social Work major with senior status, or permission of in tor. [2104-1]
2921. Senior Seminar in Social Work. (3). Social change, particular reference to social worker and social agency, $p$ ples of social change, sociology of social action, and an e nation of social work delivery systems as bureaucracies REQUISITE: senior majors or permission of instructor. [21 4932. Social Group Work and Community Organization Theory and application of group dynamics concepts as af to individual in group, committee and community struc and functions, roles of social worker in these settings. [21C 4933. Directed Individual Study. (1-4). Directed advanced ing, field study and/or research in special areas of social not otherwise provided in curriculum. NOTE: No more th hours may be taken in any one semester. May be repeat Work major and permission of Director, Division of Social [2104.8]
2922. Child Welfare Policy and Services. (3). Historic ove and contemporary application of child welfare policy; prot in policy development; contemporary American child wf
services in both public and private domains. PREREQUU services in both publ
SWRK 3903 . [2104-1]

## THE COLLEGE OF BUSINESS ADMINISTRATION

1500 BUSINESS ADMINISTRATION (BA) In addition to specific prerequisites, junior standing or permis-
sion of the department chairman is a prerequisite for all 3000 and 4000 level courses in The Coilage of Business Administra. tion.
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 College of Business Administration. [2204.1]
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, marketing, or accounting. Academic credit granted upon certification of satisfactory performance by cooperating business firm and upon acceptance by faculty of written research report by student. [0501-5).
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. [0501-8]
4990. Junior Achievement Advising Practicum. (3). Three-hour credit course designed for two-semester duration. Professional organizations approved by College of Business Administration and other groups may form advising teams under direction of faculty advisor for purpose of working with Junior Achievement. facuity advisor for purpose of working with Junior Achievernent. of spring semester. PREREQUISITE: upper division status and approval of Junior Achievement Program advisor. [0501.5]

## ACCOUNTANCY

## PROFESSOR JAMES THOMAS THOMPSON, Chairman

Room 200A, The College of Business Administration Building

In addition to specific prerequisites, junior standing or permis. sion of the department chairman is a prerequisite for ail 3000
and 4000 ievel courses in The Coiloge of Business Administra. and 4000 ievel courses in The Coilege of Business Administra.
tion.

## I510 ACCOUNTANCY (ACCT)

2010. Fundamentals of Accounting I. (3). Study of collection and analysis of financial transactions and communicating infor mation they contain with periodic general purpose financial statements using double-entry accrued accounting techniques. Use of accounting procedures to routinize and control repetitive
activities. Theory stressed with minimum necessary attention to activities. Theory stressed with
clerical operations. [0502.1]
2011. Fundamentals of Accounting II. (3). Continuation of Ac counting 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 in. volving 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 manage-
ment. Both semesters. PREREQUISITE: ACCT 2020.
[0502.1] 3110. Intermedlate Accounting I. (3). Review of accounting process and financiat statements; cash and cash flow; receiva-
bles; current liabilities; investments; intangible assets. PREREQUISITES: ACCT 2020 and 2720 . 0502 .11]
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 of changes in financial position; analysis of financial statements. PREREQUISITE:
ACCT 2720 and 3110 f0502.1] 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
[0502-1]
2016. Federal Income Tax I. (3). Regulations pertaining to viduals and partnerships; installment and deterred pay,
sales; introduction to corporate taxation. PREREQUISIT: 2720 and 3110 . $00502-1$ ]
2017. Advanced Accounting. (3). Partnerships, consignm installment sales, statement of affairs, receiver's acco statement of realization and liquidation, business combina and consolidated financial statements, branch accounting
accounting, international accounting. PREREQUISITE: 3120 . [0502-1]
4240-6240. Auditing. (3). Ethics in accounting practices, nal control, auditing standards and procedures, progran audit of various accounts, construction and indexing of va
papers, reports to clients; practice audit carried out. PRE papers, reports to clients; practice aud
UISITES: ACCT 3120, 3310. [0502.1]
2018. International Accounting. (3). Comparative study ternational accounting and auditing practices: variations counting thought; reporting standards; taxation in interna ernment regulation on accounting practice. PREREQUI ACCT 2020. [0502-1]
2019. Accounting Systems. (3). Problems in volved in desif accounting systems for various types of businesses, incle UISITES: ACCT 3120, 3310, and MGMT 2750. [0502. 1]
4520-6520. Federal Income Tax II. (3). Laws and regula for corporations, estates and fiduciaries. Includes project c research. PREREQUISITE: ACCT 3510. [0502-1]
4540-6540. Governmental Accounting. (3). Accounting it and practice applicable to federal, state, and local govern and to non-profit institutions; budgetary control; control, c
fication, and use of funds: financial statements and reI PREREOUISITE: ACCT 2020. [0502.1]
4610-6610. Seminar in Accounting. (3). Capstone course taken, preferably, the student's graduating semester. Ir on financial reporting of SEC and other regulatory agen pension plans and leases; calculation of earnings per s stock rights, stock options and convertible securities. Cu view of accounting process and ethics through case stu
PREREQUISITE: two senior level accounting courses.
2020. Internship in Accounting. (3). Seniors, after receiving apval of accounting faculty, placed in offices of cooperating blic accounting firms to receive on-the-job training under di$t$ supervision of certified public accountant and general suvision of University accounting staff. Credit allowed upon septance of report of work done, verified by supervising ac
intant. Minimum time: 500 hours. PREREQUISITE: senior nding. [0502.5]
эduare Courses in Accountancy: For course descriptions and tails of the graduate programs, see The Bulletin of The aduate School.

## ECONOMICS

ROFESSOR THOMAS O. DEPPERSCHMIDT, Chairman

Poom 400, The College of Business Administration Building addition to specific prerequisites, junior standing or permis. $n$ of the department chairman is a prerequisite for all 3000
14000 ievel courses in The Colloge of Business Administra-

## 1520 ECONOMICS (ECON)

10. Economic Issues and Concepts. (3). Critical examination current economic issues facing the country. Discussion and of elementary tools of economic analysis for familiarization importance and applicability of economic reasoning. Will
satisfy either ECON 2110 or 2120 requirement for College 3usiness Administration. [2204.1]
11. Introduction to Macroeconomics. (3). Nature and func s of national economy. Includes supply and demand, na al income and product, consumption and investment behav-
fiscal and monetary policy, and international trade and fiscal and $m$
nce. [0517.1]
12. Introduction to Microeconomics. (3). Tools of economics they apply to operation of market economy. Includes suppl demand analysis, consumer behavior, economic nature o duction and cost, behavior of firms in both competitive and hopoly environments, income distribution theory and effects ON 1010 or 2110 recommended but not required. [O517.1] 0. Principles of Macroeconomics (Honors). (3). Accelerated intensified introduction to basic concepts of macroeconom supply and demand, national income and product, unem al trade. PREREQUISITE: invitation of Department of al trade. PREREQUSITE: Invitation of Depart
nomics or admission to University Honors Program.
O. Principles of Microeconomics (Honors). (3). Accelerated intensified introduction to basic concepts of microeconom supply and demand, consumer behavior, production and competitive and monopolistic market structure, income ibution, and effects of government intervention in marke
em. PREREQUISITE: invitation by Department of Econom em. PREREQUISITE: invitation by Department of Ecc
Or admission to University Honors Program. [0517-1]
13. Labor Economics. (3). Introduction to institutional as. s of American labor force and its organization wage and bloyment theory, economic role of collective bargaining, and
a ingredients of public policy toward labor organization. c ingredients of public policy to
REQUISITE: ECQN 2120 . [O517-1]
. Microeconomic Theory. (3). Intermediate approach to theory. Stress on market mechanism as device for rece allocation; attention to uses of basic microeconomic epts in analysis of economic problems and in formulation
oblicy. PREREQUISITE: ECON 2120 . 0517.11 oblicy. PREREQUISITE: ECON 2120 . 0517.1 ]

Macroeconomic Theory. (3). Intermediate approach to income accounting and to functional relationships be Mn important aggregate economic variables as well as to
locasting and social policy implications. PREREQUISITE EN2110. [0517.1]
. Economic Development of the United States. (3). Eco ic growth of American economy in general and problems o enomic growth in South in particular. Emphasis on factors in $5 t$ nental in that growth in various segments of economy.
PREQUISITE: ECON 1010 or 2110 . $0517-1]$ PREQUISITE: ECON 1010 or 2110 . (0517-1)
3). International Economic Development - An Ecological Pr pective. (3). Process of economic development as adaptive inplay between man's needs and ways in which environmen expited to satisty those needs in both developed and less deveped countries. PREREQUI
acent of instructor. [0517.1]
30. Money and Banking. (3). Monetary and bankıng history of ading countries with special emphasis on theory of money arbanking in United States, deposit and earnings operations of dividual banks, interbank and
RiSITE: ECON 2110 . 0504 -1]
. Manpower Program Planning. (3). Planning of programs oower as field of study historical Includes overview o ar policy and legislative efforts to relieve manpower prob , methods of manpower research, goals of manpower plan and approaches and techniques of manpower planning REQUISITE: ECON 3210 . [O506.1]
. Manpower Program Administration. (3). Administration ograms designed to solve manpower problems. Include agement of manpower program units, special income anc oyment groups in labor force, types of manpower pro-
s , delivery of manpower services, coordination of proamong manpower agencies, and evaluation of man
programs. PREREQUISITE: ECQN 3210 . [0506.1] programs. PREREQUISITE: ECQN 3210. [0506.1]
. Economic Foundations of Legal Issues. (3). Economic and research methods used to explain legal foundations
tracts, free and regulated markets, environmental protection, consumer protection, economics of crime, and economics of discrimination. PREREQUISITE: ECQN 2120. [0517-1]
4111. Managerial Economics. (3). Direct application of economics to common business problems. Economic framework and empirical techniques of production and cost analysis, project evaluation, pricing, and demand analysis. PREREQUISITES: ECON 2120 and MGMT 2711 . [0517.1]
4120. Economic Forecasting. (3). Current economic thinking on problems of recession and inflation as background to economic forecasting. Methodologies of forecasting analyzed with exam-
ples of each. PREREQUISITE: MGMT 2711 or equivalent. ples of e
[0517.1]
4130-6130. Government Regulation of Business. (3) Approaches to legal and legislative control of business - espe cially tax laws, commission regulations, and anti-monopoly leg islation - in view of impact of each on industrial operating
policy. PREREQUISITE: ECQN 1010 or $2110 .[0517.1]$
4140. Industrial Organization. (3). Economic analysis of two as pects of American industry: 1) historical study of new indus ries, of question of oligopoly market power, and of impact o merger waves, and 2) analysis of structure, conduct, and perfransportation and trade. PREREQUISITE: ECON 2120. [0517.1]
4340. Comparatlve Economic Systems. (3). Theoretical frame work underlying major alternative economic systems - capita ism, socialism, communism, fa scism - 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 . [0517.1]
4350. Internatlonal Economics. (3). Historical approach to the ory 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 econ
UISITE: ECON 1010 or 2110 . [0517-1]
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: and public policy for developm
ECQN 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 objectives; emphasis on interrelationships of monetary policy, central banking, and financial markets. PREREQUISITE: ECON 3320 or
3610 . [0504-1]
4720. Economics of the Public Sector. (3). Theory and practice of government expenditure, revenue, and debt, and problem of integrating them into meaningful fiscal policy. Alternative forms of taxation analyzed, especially from standpoint of economic effects. PREREQUISITE: ECON 2120. [0504-1]
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; mphasis on property tax assessment and administration. Fis cal relations of intergovernment units, their expenditure elements, debt policy, budgeting, and financial administration. PREREQUISITE: ECQN 1010 or 2110 . [0504-1]
4810-6810. Introduction to Economic Analysis I. (3). Application of quantitative techniques of analysis to economic problems, including identification of meanıngful relationships, formulating usable quantitative statements about them, and developing relevant analytical methods. PREREQUISITES: one year of college mathematics and ECON 3310 . [O517.1]
4820-6820. Introduction to Economic Analysis II. (3). Emphasis on more complex and involved relationships of economic theory. PREREQUISITE: ECON 4810. [0517.1]
4910. Problems in Economics. (3). Students investigate issues surrounding selected economic problem and develop report of that investigation. May not be repeated for credit. PREREQUI. SITE: upper division standing and approval of department chairman. [0517.1]
4920. Senior Seminar in Economics. (3). Coordinated by department chairman and conducted by selected members of departmen. To integrate stveral fields and course areas pursued by undergraduate majors into meaningful whole. Required of department majors in their last semester of undergraduat nroliment. [0517-1
4996. Honors Thesis in Economics. (3) Independent research open only to students enrolled in Economics Department Hon ors Program. Honors thesis supervised by three-faculty com mittee selected by student and approved by Economics Honors Committee. PREREQUISITE: permission of Economics Depart ment Honors Committee. [05 17.8]
Graduate Courses in Economics: For course descriptions and details of the graduate program, see The Bulletin of The Graduate School.

## FINANCE, INSURANCE AND REAL ESTATE

ASSOCIATE PROFESSOR DONALD A. BOYD, Chairman

Room A 402, The College of Business Administration Building
In addition to specific prerequisites, junior standing or permis-
sion of the department chairman is a prerequistre for all 3000 and 4000 ievel courses in the College of Business Administra. tion.

FINANCE, INSURANCE AND REAL ESTATE (FIR) 1530
2220. Personal FInanclal Management. (3). Nontechnical dealing with broad areas of budgeting, insurance, borrowing and credit purchases, home ownership, investment, taxes, and fam ily financial planning. NQ 5 : it taken by a student ahter he has BBA degree. [0501.1]
3011. Business Law. (3). Elements of law and legal principles encountered by businessman. Emphasis on basic law of con racts, sales and secured transactions, negotiable instruments real and personal property, agency, forms of business organ zation, suretyship, insurance contracts and torts. [0501-1]
3130. The Legal, Social, and Political Environment of Business (3). Emphasis on legal, social, and political environment in which business and its executives exist. Legal, social, and politi cal forces that affect business operations. Lectures and case discussions. [0501.1]
3310. Real Estate. (3). Real estate law, property description methods of transferring property, joint ownership, tax sales and title to property, inheritance of real property. [0511.1]
3410. Business Finance. (3). Integration of principles of finan cial management with institutional finance. Current topics of managerial finance including working capital management capital budgeting, and
ACCT 2020. [0504-1]
3710. Investments. (3). Principles of investment in stocks and bonds. Includes fundamental, economic, and technical analy. sis; measurable and unmeasurable aspects of risk; portfolio management; and the psychological aspects of the market.
PREREQUISITE: junior standing or permission of department PREREQUISITE: JUN
chairman. [0505.1]
3720. Financlal Markets. (3). Survey of important funds mar kets, institutions and characteristics peculiar to them. Sources of supply and of demand for funds in each market, and com plex interrelations between several markets analyzed. [0504. 1]
3810. Princlples of Risk and Insurance. (3). Theory of risk, risk management, and insurance practice and problems in fire, liability, automobile, marine, surety, life, health and accident lines. (0512.1]
4011-6011. Law of Taxation and Planning of Estates. (3). Sur vey of law of taxation as applied to transmission of property by gift or death and its impact upon accumulations of wealth. Estate planning from individual viewpoint designed to create,
maintain, and distribute maximum estate possible. PREREQUImaintain, and distribute maximum estate possible. PR
SITE: FIR 3011 or consent of the instructor. [0501.1]
41 10. Toplcs in -. (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 enrollment. May be repeated once with change
sent of instructor. [0599-1]
4310-6310. Real Estate Law. (3). Law and legal instruments as applied to real estate. To serve needs of property owners and those engaged in real estate business. PREREQUISITE: FIR 3310. [0511.1]

4320-6320. Real Estate Finance. (3). Examination and analysis of source of funds for financing all kinds of real estate transac
tions, including FHA and VA types. PREREQUISITE: FIR 3310. tions, including FHA and VA types. PREREQUISITE: FIR 3310 [0511-1]
4330-6330. Determinants in Housing Finance. (3). Considera. tion of determinants of private and public demand for housing; relationships between construction and economic trends, new town legislation, urban renewal and development, improving sessing public policy, policy implementation; role of private en. sessing public policy, policy implementation; role of private en-
terprise in developing, maintaining and improving housing. terprise in developing, maintaining
PREREQUISITE: FIR 3310 . 0511 -1]
4340.6340. Real Estate Appraisal. (3). Fundamentals of ap praising residential, commercial, and industrial real estate PREREQUISITE: FIR 3310 . 0511.1 J
4350. Real Estate Investment Analysis. (3). Real Estate invest ment principles and practices reviewed, analyzed and evalumodel building. PREREQUISITE: FIR 3310. [0511.1]
4440. Managerial Finance. (3). Analytical approaches to firm's financial decisions; includıng current asset management, capital budgeting, cost of capital, capital structure determination, and dividend policy. PREREQÚISITE: 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 interna-
tional 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. PREREOUISITE: FIR 3410.
[0504-1]
4720-6720. Operations and Management and Financial Institutions. (3). Exposure to financial policies and decision-making that are peculiar to financial institutions in United States. Profitable management of funds consistent with adequate standards of liquidity and solvency. PREREQUISITES: ECON 3610,
3410 , and FIR 3720, or consent of the instructor. [O504.1]
4770. Security Analysis and Portfolio Management. (3). Devel opment of techniques for finding actual worth of securities, pri marily stocks and bonds. Portfolio management involves selec. tion, timing, diversification, and other aspects of supervising investment funds. PREREOUISITE: FIR 3710 . [0505.1]
4790. Internship in Real Estate. (3). Seniors majoring in real estate, with approval of department faculty, placed with real es. tate firms to work in areas of real estate sales, brokerage, fi
nance, development, appraisal and property management.

Spring semester only. PREREQUISITES: minimum of 9 hours 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 underwrting 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 service of life and health insurance to Amerıcan family and
community. Mechanics of private and public insurance and an. community. Mechanics of private and public
nuities. PREREQUISITE: FIR 3810. (O512-1)
4840.6840. Functional Aspects of Property and Liability Insurance Carriers. (3). Company and industry functions other than contracts, including ratıng, rate makıng, reserves, auditing, underwritıng, reinsurance, claims, production engineering, and
governmental supervision. PREREQUISITE: FIR $3810.10512-1]$ 4850. Social Insurance. (3). Nature and causes of economic insecurity in our society; emphasis on broader aspects of public and private programs; Social Security Act, Unemployment Com-
pensation, Workmen's Compensation, Medicare and other approaches. De-emphasizes detailed tacts and statistics otherwise readily available from various governmental agencies. [0512-1] 4860.6860 . Employe Benefit Programs. (3). Analysis of tax deferred employe compensation plans. Included are pension, protit-sharing, annuity, stock purchase and other incentive or
retirement plans. Group insurance and Social Security proretirement plans. Group in
grams considered. [0512.1]
4870. Risk Managememe. (3). Problems of risk manager in small and large firms, methods of handling risk that serve as al-
ternatives to obtaining insurance, and briet survey of insurance ternatives to obtaining insurance, and brief survey of insurance
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 Student will carry on approved research projects in his major area under supervision of staff members. PREREQUISITE: sen-
ior standing and permission of the department chairman. Ior stand
[0501-8]
Graduate courses in Finance, Insurance, and Real Estate: For
details of the graduate progrant see The Bulletin of The details of the graduate progrant see The Bulletin of The
Graduate School.

## MANAGEMENT

## ASSOCIATE PROFESSOR THOMAS ROGER MILLER, Chairman

Room 202, The College of Business Administratoon Building

> In addition to specific prerequisites, junior standing or permission of the department chairman is a prerequisite for all 3000 and 4000 level courses in The College of Business Administra. tion.

## 1550 MANAGEMENT (MGMT)

1010. Introduction to Business. (3). Acquantance with major institutions and practices in business world. Management fields include such areas as personnel management, labormanagement relations, and production management. Other major fields include such areas as business law, accountıng, finance, and marketıng. Elementary concepts of business; orientation for selection of specific major; information on business career opportunities. Qpen to freshmen only. NOTE: If taken by students with 25 hours or more, credit will not count for BBA degree. [0501.1]
1011. Business Statistics I. (3). (3710). Introduction to procedures for collection, analysis, presentation, and interpretation age of probability theory and business decision making under conditions of uncertainty. PREREQUISITE: MATH 1203 or conditions of un
1012. Business Statistics II. (3). (3711). Includes application of techniques of sampling theory, hypothesis testing, time-series analysis, and regression and correlation techniques, both simple and multiple. PREREQUISITE: MGMT 2710. CQREQUISITE:
MGMT 2750 . 0503 . 1$]$ MGMT 2750 . [0503. 1]
1013. Introduction to Data Processing Systems. (3). Characteristics of electronic machines and their potential uses. Emphasis on areas of data equipment operation; concepts of programming as required by appropriate business related computer lan guage; data processing equipment acquisition and use; and data processing organization. Preparation to communicate with
data processing personnel but not, in itself, preparation for data processing personnel but not, in itself, preparation for
technical employment in the field. PREREQUISITE: MATH 1203. [0703.1]
1014. Organlzation and Management. (3). Management functoons and basic concepts and principles of management. Includes planning, decision-making, organization, coordinatıon
and control, and basic elements of production management. PREREQUISITE: junior standing or permission of department chairman. [0506.1]
1015. Industrial Relations. (3). Role played by modern labor or ganization. Includes early efforts of workers to organize, factors which hampered growth of labor unions, and identification of labor leaders. Growth and development of local unions and gi-
ant labor federations. Internal policies and tactics of local unant labor tederations. Internal policies and tactics of
ions analyzed. PREREQUISITE: MGMT 3110. [0516-1]
1016. Computer Programming for Common Business Applica. tions. (3). (4750). Focuses on designing, writing, and
debugging programs in CQBQL for common business applicadebugging programs in CQBQL for common business applica-
toons involving sequential files. PREREQUISITE: MGMT 2750 or equivalent. [0704-1]
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 simulation. PREREQUI
SITES: MGMT 2711 and 2750 or equivalent $[0507$ - 1$]$ SITES: MGMT 2711 and 2750, or equivalent. [0507-1]
1018. Computer Systems and Business Applications. (3). Vari ous components of typical computer configurations and their relation to typical business information subsystems. Existing implementations of business EDP Systems and sources of in
formation on hardware/software developments stressed. PRE REQUISITE: MGMT 2750. [0703.1]
4210-6210. Porsonnel Administration. (3). Employer-employee relationship; job analysis; recruitment, selection, training, transfer, promotion, and dismissal of employees; industrial un rest; wage plans and policies; employee health, interest, and
morale; dealing with unions. PREREQUISITE: MGMT
O110 [0506 1]
4220-6220. Collective Bargaining. (3). Labor-management relations from standpoint of collective bargaining contracts; em phasis on process of negotiating agreements, including proce-
dures, tactics, and subject matter. PREREQUISITE: MGMT dures, tactics,
$3110 .[0516.1]$
4230-6230. Labor Legislation. (3). Historic and philosophic background of labor legislation; emphas is on recent legislation in labor area and effect of these laws on social and economic institutions. PREREQUISITE: MGMT 3110 . [0516-1]
4240-6240. Compensation Administration. (3). Systematic examination of administration of wage and salary as tool of man agement. 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 administer ing wage programs are made. PREREOUISITE: MGMT 3110.
[0506-1] 4420-6420. Organizational Behavior in Business. (3). Human relations as applied to people at work in all kinds of organizations. Emphasis on understanding of human behavior and moti vation of employees to work together in greater harmony. In cludes fundamentals of organizational behavior, leadership and its development, organizational environment, and communica
tion and group processes. PREREQUISITE: MGMT 3110 . tion and
[0515.1]
1019. Motivation and Leadership. (3). Identification of theoreti cal and practical approaches to influencing and motivating peo ple. Findings of numerous theorists compared and contrasted to explore relative effectiveness of various leadership styles and motivation theories from managerial view. Experimental based learning methods used to aid diagnosis and understanding of one's own influence styles. CQREQUISITE: MGMT 4420. [0502-1]
4510.6510. Production Management. (3). Development of scientific management, organization of production function, oper ation and control of production systems, application of analyti cal methods of cost analysis, simulation, and statistical
analysis. Application of schematic analysis to production. PRE. analysis. Application of schematic analysis to production. PRE-
REQUISITES: MGMT 2711 and 3110 . [0506-1]
4710 . Business Policy. (3). Advanced problems in policy evaluation, determination, execution, administration, and control Policy objectives in integration of product, marketing, manufac
turing, finance, and organization. PREREQUISITES: MGMT 3110 and senior standing in College of Business Administra tion. Course should be taken in either last or next to last semes ter before graduation. [0501-1]
4711.6711. Intermedlate Statistical Analysis. (3). In depth study of business decision makıng using advanced statistical concepts including additional probability distributions, use of samples and sample design, non-parametric methods, and ad vanced techniques of analysis through use of correlation analy sis and analysis of variance. Computerized statistical programs
utilized to solve complex problems. PREREQUISITES: MGMT 2711 and 2750. [0506-3]
1020. Business Data Management. (3). Focus on (1) designing, writing, and debugging programs written in a high-level language for common business applications involving direct access files; (2) selecting appropriate file organization; (3) designing data models; and (4) evaluating Commercial Data Base
Management Systems. PREREQUISITES: MGMT 3750, 3780. MaREQUISITE: MGMT 4755 [0704:1]
4780-6780. Systems Design for Business Activi1ies. (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. Qbjective to simulate middle level executive role in transition and integration of business operations
into computer oriented systems. PREREQUISITE: MGMT 3760 . into comp
4790-6790. Management Information Systems. (3). Problems and techniques concerning design and installation of responsive systems brought together; special attention to executive use of system's product. System approaches utilizing current and texts in computer field. PREREQUISITE. MGMT 2750 and one college level mathematics course; junior standing, or permission of instructor. [0506-1]
4810.6810. International Management. (3). Fundamental knowledge of contemporary managerial problems as presented in foreign-influenced environment. Uniqueness of problems in planning, control, choosing foreign associates, plan location, laernments highlighted by texts and through discussion of artıernments highlighted by texts and through discussion of arti-
cles from current business periodicals. PREREQUISITES: Cles from current MKTG 3010. [0506.1]
MGMT 10 and MKTG
1021. Venture Initiation Management. (3). Inıtiation 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 Busidevelopment. PREREQUISITE: completion of 3000 level Busi-
ness Administration Core Courses or consent of instructor. [0506-1]
1022. Management Problems. (1-3). Student carries on
proved research projects in his major area under supervisid staff members. PREREQUISITE: senior standing and pen sion of department chairman. [0506-8]
Graduate courses in Management: For details of the grac Graduate courses in Management: For details of
program see The Bulletin of The Graduate School.

## MARKETING

PROFESSOR HARRY HARMON SUMMER, Chairman

Room 302, The College of Business Administration Build


## 1560 MARKETING (MKTG)

3010. Basic Marketing. (3). Marketing structure, developn unctions, costs, institutions and pricing. PREREQUISITE 3012. Consumer Behavior. (3). Why consumers behave as: do. Psychological and sociological theories and principles plied to current marketing problems. [0509.1]
3011. Advertising Fundamentals. (3). Field of advertising cluding agencies, media, layout, copy, typography. PRER
SITE: MKTG 3010 or permission of instructor. 0604 1] 3170. Advertising Problems. (3). Case study of adverti functions, emphasizing determination of advertising strat lanning of creative strategy; planning of media strategy; el ation of advertising results and introduction to organization
management of advertising function. PREREQUISITE: M management o
$3140 .[0604.1]$
3012. Industrial Markesing. (3). Comprehensive study of in trial market - products, structure and functioning. Those ments of industrial market concerned with agricultural raw terials and products purchased by governmental
included. PREREQUISITE: MKTG 3010 . [0509.1]
3013. Retailing Fundamentals. (3). Changing concepts of re ing from management viewpoint. Principles that underlie essful operation of enterprises distributing products and vices to ultimate consumers. PREREQUISITE: MKTG 3010
ACCT 2010 or permission of department chairman. [0509.1 3330. Retail Merchandising Management. (3). Buying func at retail level; emphasis on selection, timing, pricing, mercl. dising, and control of inventory investment. Long- and st, range objectives and policies as they affect me
ment. PREREQUISITE: MKTG 3320. [0509.1]
3014. Sales Fundamentals. (3). Basic salesmanship, sales ory, sales techniques and sales role playing. History of sel and salesman's role in our economy included for understí 3430. Sales Promotion. (3). Vast and often unassigned are marketing that exists between advertising and personal sellVital marketing functions that must be performed by manu turers or middlemen as products flow down channels of di
bution. PREREQUISITE: MKTG 3010 or permission of def ment chairman. [0509. 1]
3015. Marketing of Services. (3). Structure and organizatio service firms. Attention to role of offering, pricing, place mage. PREREQUISITE: MKTG 3010. [0509.1]
omic social andon Fundamentals. (3). Introduction to romic, social, and political aspects of transportation syster
United States. Includes various modal components (rail, $h$ way, air, pipeline, and water transportation) and internal cc raints. PREREQUISITE: MKTG 3010. [0510.1]
3016. Logistics Planning and Analysis. (3). Interrelations among production, marketing, and financial managemen
they impact flow of raw materials and finished goods thre they impact flow of raw materials and finished goods thri
firm. Such managerial activities as inventory control, wareh ing. Such managerial activities as inventory contro), wareh ing location and operation, packaging, transportation alte
tives, information processing; integration of the various cor nents into total logistics system design. PREREQUISITE: $M$ 3610. (0510-1)
3017. Traffic Management. (3). Detailed analysis of freight ic function within firm's logistics system. Includes rate classification systems, claim liability, shipping document pr ganizing and operating traffic department. PREREQUIS MKTG 3610 or permission of department chairman. [0510.
3018. Marketing Research. (3). Research methods and prdures used in field of marketing to help solve business $p$
lems. PREREQUISITES: MGMT $2 \% 11,2750$, and 6 hour lems. PREREQUISITES: MGMT 2/11, 275
marketing including MKTG 3010. 10509.1 j
3019. Advertising Media and Campaigns. (3). Characteris and uses of media by companies, products lines and reas for selection. Last part of both semesters devoted to deve 3140. [0509.1]
3020. Purchasing. (3). Policies for effective and efficient. curement of goods and services for today's industry. Closi tention to measurement and evaluation of purch
ance. PREREQUISITE: MKTG 3010. [0509. I]
3021. Retail Operations Management. (3). Operational asp of retail firm, including store location, layout, merchandise I pense control. Improving efficiency and productivity em sized. PREREQUISITE: MKTG 3320. [0509.1]
3022. Credi1 and Collections. (3). American credit system collection methods used today, significance of credit info
management of charge accounts, credit and collection corpondence, mercantile credit and importance of credit to our amic well-being. PREREQUISITE: MKTG 3010. (0509.1)
3023. Sales Management. (3). Major sales management func1s; Controlled practical application of sales management ctions through utilization of case study approach. Overview operation of marketing departments through synthesis of e primary divisions of marketing management - sales and EREQUISITE: MKTG 3410 . [0509.1]
3024. Sales Training. (3). One of most important staff activities hin any marketıng department - training of sales personDesigned to develop salesmanship, art of persuasion, into chable subject which will apply to business world. How to bene a sales trainer and to develop understanding of training
3025. International Marketing. (3). Bases and promotion of forn trade; international marketing organizations and methods; hnical and financial features of international marketing EREQUISITE: MKTG 3010. [0513.1]
3026. Transportation and Policy Alternatives. (3). Transporta policy alternatives and problems viewed in relation to their ects on carriers, transport users and general public. Evoluof public control and promotion in transportation including of regulatory commissions. PREREQUISITE: 6 hours in isportation and logist
nt chairman. [0510-1]
3027. Carrier Management. (3). Problems confronting managof transportation companies. Includes carrier organization, rations, marketing strategies, finance, control, sales, labo ations, and shipper-carrier interaction. PREREQUISITE: 6
irs in transportation and logistics courses or permission of partment chairman. [0510.1]
3028. Seminar in Transportation and Logistics. (3). Problems transportation and logistics. PREREQUISITE: 9 hours in isportation and logis
it chairman. 10510.1
3029. Management of Marketing Strategies. (3). Comprehen$z$ study of marketing strategies and how implemented. Com er games and cases as well as "real-world" problems to strate application of marketing concepts in practical man-
PREREQUISITES: MKTG 3012, 3610, and 4080. [0509.3] 10. Problems in Marketing. (1-3). Students carry on ap ved research projects in their major area under supervision taff members. PREREQUISITE: senior standing and permis of department chairman. [0509.8]
3030. Marketing Internship. (3). Seniors majoring in marketing y, after receiving approval of department chairman and pro 1sor concerned, obtain actual experience by workıng mini n of 200 hours in approved marketing positions. May 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, Chairman

Room 300, The College of Business Administration Building

In addition to specific prerequisites, junior standing or permission of the department chairman is a prerequisite for all 3000 and 4000 level courses in The College of Business Administration.

1570 OFFICE ADMINISTRATION (OFAD)
1210. Elementary Typewriting. (3). Use and operation of parts of typewriter, mastery of keyboard, simple business and profes. sional letters and reports, introduction to tabulations. [0514.1] 1220. Intermediate Typewriting. (3). Typing of different styles of business letters, tabulations, and manuscripts; developing typing rate of 45 words or more per minute. [0514.1]
2120. 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. [O5 14 1] 2130. Intermediate Shorthand. (3). Review of shorthand theory, taking shorthand and transcribing accurately. PREREQUI. SITES: QFAD 1220 and 2120 or equivalents. [05 14-1]
3140. Advanced Shorthand. (3). Review of shorthand principles, daily speed practice, development of transcription skill for production of mailable transcripts. PREREQUISITE: QFAD 3250 or QFAD 1220. [0514-1]
3250. Advanced Typewriting. (3). Review of business letter styles, manuscripts and reports, statistical tables. Development of typing rate of better than 60 words per minute. PREREQUI. SITE: OFAD 1220. [05 14-1]
3510. Business Communication. (3). Communicatıon 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 environment. PREREQUISITE: Freshman English. [0514.1]

4161-4163. Technical Dictation. (3) Only one may be taken for credit. PREREQUISITES: QFAD 1220, 2130.
4161. Legal: Review of Gregg shorthand theory, short cuts, vocabulary needed to be a legal stenogra pher. [05 14.1]
4162. Medical: Review of Gregg shorthand theory, short cuts, vocabulary peculiar to the medical profession. [0514.1]
4163. Scientific: Review of Gregg shorthand theory special scientific vocabulary and terminology [0514-1]
4270. Secretarial Typewriting and Office Machines. (3). In struction and practice in use of secretarial office machines in cluding executive typewriters; transcribing from voicewriting equipment; ink, spirit and offset duplication; copying machines four hours per week. PREREQUISITE: QFAD 3250. [0514.1]
4320. Applied Secretarial Practice. (3). Qualifications, duties and training of secretary; requirements for employment; organ ization of work; telephone etiquette; business reference books receptionist techniques. [05 14.1]
4330. Records Management and Control. (3). Handling of in coming and outgoing mail; filing procedures; installation, ad ministration, and control of geographic, numeric, subject and Soundex filing systems; practice in several types of filing. [0514-1]
4340. Office Model Simulation. (3). Realistic office-like situa tion for training students to be secretaries or business educa ion teachers. Students assume role of "employee" while per orming interrelated tasks in office model designed to simulate actual office. Four hours per week. PREREQUISITES: QFAD 4270, QFAD 4320. [0514.1]
$4410 \cdot 6410$. Office Management. (3). Modern methods in office organization and management, scientific office management, office reports, office correspondence, calculating and checking, filing, records retention, duplicating, handling mail, planning procedures, planning for equipment, office machines, automa ion, planning for office space, physical working conditions and office layout. [0514-1]
4420. Word Processing. (3). Emphasizes concepts and develop ment of techniques and basic applications of word processing Includes word processing systems and procedures, equipmen selection, layout and design or word processing centers, dicta tion systems and procedures, and human aspects of word proc essing systems. [0514 1]
4910. Problems in Office Administration. (1-3). Directed indi PRERE Sudy in major area under supervision of staff members Graduate Courses in Office Administratoon - Office Management: for information concerning the graduate program, see The Bulletin of The Graduate School

## THE COLLEGE OF COMMUNICATION AND FINE ARTS

# ART <br> PROFESSOR <br> WRENCE FIELDING EDWARDS, Chairman 

Room 201, Jones Hall

## sfer students seeking advanced standing in art are re- ind to submit a portfolio.

## K020 ART (ART)

Introduction to Art. (3). Fundamental principles of the arts; understanding of art products and processes as basis dgment and enjoyment of all types of art expression. Does eet degree requirements for the B.F.A. or the B.A. in Art. $13.1]$
Basic Design. (3). Basic design factors of line, value, tex form, and space in problem solving approach to stimutate int's visual perception and to encourage inventive manipuof tools, materials, and techniques. Development of voary
is $s$ ions, and class critique. [1002.1]
2. Color Fundamentals. (3). Light and color in relation to Mixing of colors and notation of hue, value, chroma relaonips. Interaction of color; color harmony, psychology, and

yolism in a variety of mediums. PREREQUISITE: ART | yolism in |
| :--- |
| 2. |
| 1002.7$]$ |

Beginning Drawing. (3). Introduction to materials and iques of basic drawing [1002-1]
. Figure Structure. (3). Analysis of structure of human fig. ART 1311. [1002.1], gesture, and volume. PREREQUI. RT $1311 .[1002.1]$
World Art I. (3). Development of visual arts from prehistimes through medieval period, their use by man as social,
al, and educational force; brief survey of art of Far East.


World Art II. (3). Continues (but does not pre-suppose) Art I; development of visual arts from medieval period gh Renaissance to present. [1003.1]
Design. (3). Continued study of the elements of design, variety of materials and methods. PREREQUISITES ART and 1204, or permission of instructor. [1002-1]
2202. Design. (3). Continuation of ART 2201; attention to three dimensional problems PREREQUISITE: ART 2201 or per. mission of instructor. [1002.1]
2213. Lettering and Layout. (3). (Same as CMUS 2213). Intro duction to graphic design: problems involving use of typogra phy; principles and techniques of layout; and development of roughs and comprehensives. [1009.1]
2221. Graphic Production. (3). (Same as CMUS 2221 ). Prepara tion of copy for photomechanical reproduction: printing pro cesses, halftone and line reproduction, selection and use of cesses, halitone and 110e
type and paper. [1009.1]
2233. Interior Drafting Practices. (3). (223i). 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]
2234. Interior Color and Composition. (3). (2232). Application of color theory and design composition to specific requirements of interior design practice, through lectures and studio assignof interior design practice through lectures and studio assign-
ments PREREQUISITES: ART 1204 and 2201, or permission of instructor. [1009.1]
2312. 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]
2313. Drawing. (3). Advanced problems of communication through exploration of varied graphic media and methods. PREREQUISITES: ART 1311 and 1314, or permission of in structor. [1099.1]
2314. Drawing. (3). Contınuation of ART 2313; emphasis on personal expression. PREREQUISITE: ART 2313, or permission of instructor. [1002.1]
2351. Printmaking. (3). Introduction to basic printmaking processes: relief, intaglio, planograph. [1002-1]
2511. Sculpture. (3). Introduction to basic materials and techniques of sculpture. [1002-1]
2701. Photography I. (3). (3224). Basic techniques and pro cesses of black and white still photography. History and aes thetics of photography as fine art. Emphasis on personalized perception and seeing photographically [1011.1]
2702. Photography II. (3). (4224). Exploration of black and white still photography as means to personal expressive statement and seif discovery. Initial emphasis on portraiture. PR
3103. Architecture and the Interior Environment. I. (3). (3101). Historical development of major European periods and styles

In, primarily, residential architecture, interiors, decorative arts
and furniture from early Renaissance through mid 18 th cen tury [1003.1]
3104. Architecture and the Interior Environment II. (3). (3102) Historical development of major European periods and styles from mid 18th century into 20 th century; comparisons of American developments beginning with mid.17th century. [1003. 1]
3221. Graphic Design. (3). Introduction to methods and mater Is of graphic design, with problems which utilize visual com munication. PREREQUISITE: ART 2213 and 2221 . [1009-8]
3222. Graphic Design. (3). Continuation of ART 3221, offering further study in techniques of newspaper, magazine, and di rect-mail layout. PREREQUISITE: ART 3221. [1009-8]
3223. Packaging and Display. (3). (Same as CMUS 3223). Pack age designing and display techniques. PREREQUISITES: ART 2213 and 2221. [1009.8]
3233. Components of Interiors. (3). (3231). Introduction to re sources of interior furnishings industry through lectures and studio assignments: wall and floor coverings; drapery fabric and upholstery; residential, commercial and institutional furni ure; decorative accessories. Development of estimates for wal coverings and window treatments. PREREQUISITES: ART 1204, 1311 and 3103, or permission of instructor. [1009-1]
3234. Interior Design Studio I. (3). (3232). Application of material covered in basic interior design courses to theoretical de signs for complete environments. Space planning and furnish ing studies deveroped through studio assignments. instructor. [1009.8]
3235. Commercial Lighting Design. (3). (4234). Comprehen sive study of lighting sources and principles, color and applica fions, including circuiting, switching, dimming systems, task ambient lighting and industry resources. The Lumen Formula and Area Method of design applied through studio assignments and lectures. PREREQUISITES: ART 2233, 2234, and 3233, or permission of instructor. [1009. 1]
3236. Rendering for Interiors. (3). (4233). Comparative appli cation of variety of techniques using black. white and color mediums for interior perspective illustration. Lectures and studio assignments in line, texture, shade-shadow, volume, color and free-hand drawing. PREREQUISITES: ART 2233, 2234, and 2312, or permission of instructor [1009.1]
3237. Interior Construction Drafting. (3). (4551). Principles of building construction and their application through draftings or both residential and commercial installations. Building methods and materials studied through lectures and studio as signments. PREREQUISITE: ART 3234 or permission of in structor. [1009.1]
3238. Interior Cabinetwork Drafting. (3). (4552). Principles of cabinetmaking, wood ioints, laminating, contouring and hardware required for their application to detail draftings for both commercial and residential custom design. Drafting procedures studied through lectures and studio assignments. PREREQUISITE: ART 3237 or permission of instructor. [1009. 1]
3240. 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]
3331. Painting. (3). Preliminary course in theory and practice 3331. Painting. (3). Pre
of oil painting. 11002.8$]$
3332. Painting. (3). Continuation of ART 3331; attention to es sentials of still-life, landscape, and portrait painting. [1002.8] 3351. Printmaking. (3). Continued study in graphic arts; further emphasis on woodcut and etching. PR
2351 , or permission of instructor. [1099.8]
3352. Printmaking. (3). Continuation of ART 3351; emphasis on personal expression. PREREQUISITES: ART 2351 and 3351, or permission of instructor. [1009-8]
3411. 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]
3413. Materiais and Methods in Teaching Elementary School Art. (3). Aid to future teachers in understanding child art, encouraging art expression, and preparing art teaching materials
for children. PREREQUISITES: ART 1101 (or 2101 and 2102) and 3411. [0831-1]
3421. 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 program. PRE REQUUSITE: ART 2202 or 3411 , or permission of instructor. [0831.1]
3511. Scuipture. (3). Problems of sculptural form as expressed in metal, wood, and related materials. [1002-8]
3512. Scuipture. (3). Continuation of ART 3511; emphasis on techniques. [1002.8]
3523. Ceramics. (3). Introduction to clay and ceramic process. Emphasis on thoughtful, purposeful exploration of medium, regarding both pottery vessel and nonvessel object. [1009-8]
3524. Ceramics. (3). Continuation of ART 3523. Some consideration to fundamental historical and aesthetic aspects peculiar to ceramics as a studio medium. [1009-8]
3541. PackagIng and Dispiay. (3). Continuation of ART 3223; attention to trademark designs, package rendering and practiattention to trademark designs, package rendering
cal displays. PREREQUISITE: ART 3223. [1009.8]
3701. Photography III. (3). Continuation of ART 2702. Closer examınation of several key photographers' work as point of departure for student work. How student work relates to traditions. PREREQUISITE: ART 2702, junior standing, or permis-
sion of instructor [1011.1] sion of instructor. [1011.1]
4101-6101. History of Graphic Design. (3). Major trends and developments in the field of graphic design; typography, illus. tration, photography, reproduction technology and broadcast media. [1003.1] [1003. 1]
4121-6121. Anclent Art of the Near East. (3). Architecture. sculpture, painting and minor arts in Egypt and Ancient Near East. [1003. 1]
4122-6 122. Greek and Roman Art. (3). Architecture, sculpture, and painting from Aegean art to the fall of the Roman Empire. [1003.1]
4131-6131. Eariy 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 Gothlc Art. (3). Development of architecture, sculpture, and painting from Carolingian (ProtoRomanesque) Period through Gothic Period. [1003-1]
4141-6141. Art of the Early Renalssance In Italy. (3). Architec ture, sculpture and painting of Italy, 1300.1510. [1003-1] 4142-6142. Northern Renaissance 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; highlights works of Michelangelo, Raphael, Titian, 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 con temporary 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 19th century styles, 20th century master, and contemporary developments in architecture; includes historic preservation. [1003-1]
4162-6162. Spanish Colonial Art. (3). The arts in South Amer ica, Mexico, and United States during period of Spanish Rule. Survey of Baroque art in the Americas. [1003.1]
4163.6163. Pro-Coiumbian Art. (3). Ancient art of Mexico, Cen tral America and South America from about 1000 B.C. to European contact. [1003.1]
4165-6165. Art of the American indian. (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 America II. (3). Architecture, sculpture, painting and minor arts in continental United States from Civil War period to present. [1003-1]
4171-6171. Oriental Art: Indla. (3). Artistic traditions and monuments of India from Indus Valley period to 19th century as related to Hinduism, Buddhism and Islam; influence of these traditions on Southeast Asia. [1003-1]
4172-6172. Orlentai Art: China and Japan. (3). Artistic traditions and monuments of China and Japan from prehistoric period to 19 th Century as related to Confucianism, Taoism,
Buddhism and Shinto. [1003.1] Buddhism and Shinto. [1003-1]
4181-6181. Primittive Art. (3). Art of primitive Negro of Africa, aboriginal peoples of Oceania, and American Indian. [1003-1]
4197-6 197. Speclal Toples in Art History. (1-6). Art history topics or problems with group tours to pertinent exhibitions or museum holdings, when feasible. Content of course may vary from semester to semester. May be repeated to a maximum of 6 se
mester hours credit. $[1003.9]$
4201-6201. Advanced Design - Plastics. (3). Two-dimensional and three-dimensional design in plastics employing basic methods of casting resins and thermoneating processes using sheet, rod, and tube plastics. [1009.8]
4202-6202. Advanced Design - Plastics. (3). Further development in creative plastics design through thermoheating process of vacuum forming, blow forming, and resin casting pro cesses. [1009-8]
4205-6205. Advanced Design - Continuous Pattern Processes. (3). Emphasis on both theoretical and practical ap proaches to continuous pattern processes using various media and processes techniques. PREREQUISITES: ART 1201, 1204, 2201, 2202. [1009-8]
4206-6206. Advanced Design - Continuous Pattern Prostructed pattern processes. PREREQUISITE: ART 4205 [1009.8]
4207-6207. Advanced Color. (3). Indepth study of contemporary 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 - Special Probiems. (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/resident/ UISITE: ART 3240 and/or permission of instructor. [1009.9]
4221-6221. Graphlc Design. (3). Advanced problems in fields of advertising and merchandising design. PREREQUISITE: ART 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 of instructor. [1009-8]
4237-6237. Interior Design Studio. (3). (4231). Advanced in interior design. Comprehensive studio assignments including space planning, construction, lighting and complete furnishings specifications with samples, concluding with class presen-
tation by student designer. PREREOUISITES: ART 3234,3235 , tation by student designer. PREREQUISITES: ART 3234, 3235, 3236, and 3237 or permission of instructor. [1009.8]
4238-6238. Interior Design Studio. (3). (4232). Further advanced studio assignments in commercial and residential interior design, with class presentations. PREREQUISITES: ART $3238,4237,4239$, or permission of instructor. [1009.8]
4239-6239. (4235). interior Deslgn Business Practices. (3). Study and application of principles, procedures and business practices of interior design. Contracts, letters of agreement, work orders, business forms and specification writing developed in conjunction with lectures and studio assignments. $1 /$
REQUISITE: ART 3234 or permission of instructor. [1009.1]
4240-6240. (4236). Interior Design Internshlp. (3). Approved on the job apprenticeship experience with cooperating em. ployer in an interior design firm's studio, retail store or de signer showroom handling products of interior furnishings in dustry. Student's training evaluated by employer and interior
design faculty. PREREQUISITE: ART 4239 or permission of instructor. [1009.5]
4321-6321. Drawing and Painting. (3). Advanced drawing and painting methods; emphasis on transparent watercolor. PRE
REQUISITE: ART 2313 or permission of instructor. [1002-8]
4322-6322. Drawing and Palnting. (3). Continuation of ART 4321; attention to various mixed media. PREREQUISITES: ART 2313 and 4321 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 tor a more experimental approach to subject. PREREQ [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. Illustration. (3). Survey of many areas requiring services of illustrator and including preparation of book, maga zine, advertising, and television illustrations. [1009.8]
4342.6342. Illustration. (3). Continuation of ART 4341; analy. sis of fine art techniques of drawing and painting as they apply to commercial illustration. [1009.8]
4351-6351. Printmaking. (3). Specialization in one or two graphic media. Students encouraged to develop a personal im agery and necessary technical abilities. PREREQUISITES: ART 2351, 3351, and 3352, or permission of instructor. [1099.8] 4352-6352. Printmaking. (3). Culminating course in the graphic arts. Work may be done in woodcut, etching, or lithog-
raphy. PREREQUISITES: ART 2351, 3351, 3352, and 4351, or raphy. PREREQUISITES: ART 235
permission of instructor [1099.8]
4380-6380. Museoiogy. (3). (Same as ANTH 4380). History and development of museums; mandate and variety of institutions significant research facilities; historical and contemporary col
lections, and educational roles of museums in contemp society. [2299.1]
4381-6381. Art Curatorlal Techniques. (3). Curatorial resp bilities and functions: receiving and shipping methods, $r$ ration, physical and environmental security, research, con ation, and study of art market and publications. [1099. 1]
4382-6382. Museum Operation. (3). (Same as ANTH 43 Basic aspects of museum organization, management, ex planning and exe
records. [2299.1]
4421. Materiais and Methods In Teaching Secondary Sc x. (3ssion as SCED 3321). Understanding adolescen school art program. PREREQUISITES: ART 3421 and 352: permission of instructor. [0831.1]
4424-6424. Woven and Constructed Fiber Design. (3). Crea lesign of textile construction, including experimental and m harness weaving, rug-making techniques, macrame, appli
4425-6425. Woven and Constructed Fiber Design. Continuation of ART 44
fiber design. [1009-8]
4511-6511. Sculpture. (3). Advanced work in various sculpt media. PREREQUISITES: ART 2511, 3511, and 3512 or mission of instructor. [1002.8]
4512-6512. Scuipture. (3). Continuation of 4511; emphasi personal expression.
of instructor. [1002.8]
4521-6521. Ceramics. (3). Advanced studies in ceramic $p$ ess and technique. Concentration on development of pers attitudes toward work. [1009.8]
4522-6522. Ceramics. (3). Technical competence and the duction of ceramic objects reflective of genuinely persona volvement. [1009.8]
4531-6531. Jewelry. (3). Jewelry-making; emphasis on ma als and equipment. Nature and possibilities of metals, stc and other materials in terms of good jewelfy design. B projects in enameling

4532-6532. Jewelry. (3). Second course in jewelry-making metal-work. Study and practice in good design. Work in lost [1009.8]
4611. Senlor Problems. (3). Original research in student's: of concentration, extent of the project to be approved by art ulty. [1099.8]
4621-6621. Workshop in Art. (3). Specific art problems as apply to individual student; emphasis on basic art concepts creative
4622-6622. Workshop in Art. (3). Continuation of ART 4 providing study of problems appropriate to need of indivi 4641-6641. Study and Travel in Art (3 or 6). Travel to im ant art areas of world and specialized study under directic faculty member of Department of Art. [1003.8]
4701-6701. Coior Photography. (3). Exploration of pr graphic perception in color. Survey of history and aesthetic color photography. Techniques of color photography; emph
on color printing. PREREQUISITE: ART 2702, junior stane or permission of instructor. [1011-1]
4702-6702. Photographic Materlais and Processes. (3). vanced technical course exploring creative potential in var contemporary and historical photography materials, proce and techniques. Emphasis on aesthetic application of those terials and technique. PRE
sion of instructor. [101 1.8 ]
4711-6711. Advanced Photography Seminar. (3). Self-dire problems course. Emphasis on student's finding persona ection within his own work, pursuing that direction, and standing, or permission of instructor. [1011-8]
4712.6712. Photography Portfollo Seminar. (3). Continua of ART 4711. The student must make photographs whict be used to produce a photography book or portfolio (boun
the student) which represents a coherent, indepth picture s the student) which represents a coherent, indepth picture s ment, and contains a written introduction.

## JOURNALISM

ASSOCIATE PROFESSOR GERALD C. STON: Chairman

## Room 318, Meeman Journalism Building

## K260 JOURNALISM (JOUR)

1700. Survey of Mass Communication. (3). (1011, 1012). cial background scope, functions, and organization of mox communication media; attention to all major mass commur tion media. Philosophy and goals of modern iournalism; its pact on governmental, social and economic systems. NO Students who have received credit for JOUR 1011 OR 1 may not receive credit for JOUR 1700. [0601-1)
1701. Elementary Nows Writing. (3). (2111). News story si ture and factors that determine value of news, with consid tion given to both theoretical and
gathering and reporting. 10602-1]
1702. Edtuin i. (3), (31
1703. Editing i. (3). (3112). Practices in headline writing, ing, and newspaper makeup and study of contemporang ed
problems. 10602.1$]$ problems. [0602.1]
po. The Magazine. (3). (3116). Historical backgrounds, conts, purposes, and readership of general magazines, busi 0. Survey of Advertising. (3). Exploration of creative func. of advertising; emphasis on role of media. [0602-1]
1704. Press Photography. (3) (3111). Takıng pictures with camera, developing films, making enlargements, crop$\Rightarrow$ and scaling for publication. Students may bring their own leras. Open to non-majors with permis:
1705. Typography. (3) (2211). Study and effective use of type,
iposition, engraving, stereotyping, printing and graphic deiposition, engraving, stereotyping, printing a
1706. News Feature Writing. (3). Fundamentals of non-fiction ure writing for newspapers, magazınes, company publica. s and broadcast news presentations. Story ideas, personal-
profiles, humor articles and complex, news-related features rofiles, humor al
zloped. [0602-1]
1707. Editing II. (2). ( 3113 ). Emphasıs on practical editıng apations. Students are charged with production of The Helms 1. PREREQUISITE: JQUR 2123. [0602-8]
1708. Magazine Article Writing. (3) (3121, 3122). Introduction ee-lance writing techniques. Preparing queries and articles subrmission. Generating and researching ideas appropriate it for JOUR 3121 OR 3122 may not receive credit for JOUR 5. [0602-1]
1709. Magazine Editing and Production. (3). (3117). Editıng productıon problems of magazınes; emphasis on business,
strial, and home periodicais; headline and title writıng; picstrial, and home periodicals; headline and title writıng; pic-
I copy layout, staff organization; and production processes. I copy layout, staff organization; and
REQUISITE: JQUR 2200. 10602-1]
1710. Advertising Layout. (3) (3210). Basic techniques in lay but printed advertisement; introduction to use of advertis nat service in layout. [0602-1]
1711. Advertising Copy Writing. (3). (3221). Prınciples of adsing psychology in relation to proved techniques for writing tive copy; approximately half of course devoted to practice iting copy and preparing rough layouts. [0602.1]
1712. Advertising Sales. (3). (3222). Practıcal experience in aration and selling of completed advertisements; student ervice own clients throughout semester, using The Helmsas a space medium [0604-1]
. Introduction to Public Relations. (3). (4222). Develop, scope, and modern role of public relations; emphasis on
studies, lectures, and experımentation with major public studies, lectures, and experimer
ons tools and practices. [0699-1]
. Public Relations Techniques. (3). (4232). Booklet pro on, writing news releases, preparing visuals for speeches, ucing slide presentations, writing annual reports, planning pudgeting, and other tasks customarily assigned to public
ons practitioner. PREREQUISITE: JQUR 3400 . [0699.1] Advanced Press Photography. (3). (4008). Continuation PUR 2520; emphasis on materials for duotones and two three-color, and four color separation processes. PRE
EISITE: JQUR 2520 or permission of instructor 10699.1
. Photojournalism Editing. (3). (3011). Adapting visual nunication images to written word. Advanced picture cropcutline writing, photojournalism essays and completed nor. [0699-1]
Radio and Television News Writing and Editing. (3). ). Processing of news for radio and television; attention to nt-day style use
$\times 2121.10603 .1 \mathrm{j}$
. Radio and Television Reporting of Special Events. (3). 3). Preparation and presentation of special programs such ws, sports, inte
$3625 . ~ 10603.1]$
1713. History of Journalism. (3). (4005). Origin and develop. of American journalism; students who enroll should have leted HIST 2601 and 2602 or equivalent. [0602-1]
Reporting. (3). (2112). Gatherıng and writing news of the
irsity community with assignments arranged on The esman. PREREQUISITE: JQUR 2121 . [0602.1]
3 Journalism Seminar. (1). Weekly presentation by a media ossional on a topic in his field of journalistic expertise. Stu prepare for discussion sessions through assigned read May be repeated for a maximur
ISITE: junior standing. [0601-1]
Reporting Public Issues. (3). (4245). Analyzing and news reports about government, courts, energy, econ ntaxes, education, environment, medicine and science. es relationship between current issues and public's need EQUISITE: JQUR 3720. [0601]
Writing Internship. (2). (4002, 4003). Work in practical siments at local media under supervision of qualified prac24 4003, 4330 , or 4430 may not receive credit for JOUR 1. PREREQUISITE: permission of instructor. [0601-5)

I6 Fashion Advertising Copy Writing. (3). (4050). Introduc evaluating, writing, and editing of copy for tashion ad ng and sales promotion. Students analyze advertising a te fashion market practices of retail and wholesale firms atte fashion market, and prepare sample books of fashior 1)

2 Advertising Strategies. (3). (4100). Researching, plan visiting, scheduling, budgeting, and evaluating complete ising campaign. Includes media selection, layouts, tapes, e. PREREQUISITE: JQUR 3322,3324 . [0604-1]

Advertising Internship. (2). (4000). Work under supervi-
qualified practioners in local advertising agency; adver. department of newsper television or radio station; iny advertising department. NQTE: Students who have re-
ceived credit for JOUR 4130 or 4430 may not receive credit for JOUR 4330. PREREQUISITES: JOUR 3322, 3324 and permis sion of instructor. [0601.5)
4400.6400. Institutional Media Relations. (3). Interpreting goals, needs, and achievements of institutions (primarily educational) to the ir publics. (0601.1)
4423. Public Relations Case Problems. (3). Case studıs and typical public relations problems. Planning and preparation of communications materials for various media; application of
public relatıons techniques. PREREQUISITE: JOUR 3421 . public re
[0699. 1$]$
4430. Public 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 analysis of public relations plan and evaluation of results.
NQTE: Students who have received credit for JOUR 4130 or NQTE: Students who have received credit for JOUR 4130 or
4330 may not receive credit for JOUR 4430 PREREQUISITE: JQUR 4423 and permission of instructor. [0699.5]
4629. Electronic Reporting. (3). (3334). Theory and practice of gathering and presenting news in radio and television. Focus on operational processes in commercial electronic media as they
relate to news procedures and on practical experience with relate to news procedures and on practical experience with
roles and functions in news departments. PREREQUISITE: roles and functions
JQUR 3625 [0602.1]
4700. Mass Communication Law. (3). (4001). Origın and devel opment of legal principles affecting freedom of expression and provisions of laws of libel, slander, copyright, and other stat utes limiting communication in fields of publishing and broad. casting. (0601-1)
4702. Current Trends in Journalism. (3). (3332). Advanced study of recent, critical problems faced by the mass media and its practutioners. 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 character or effects of mass communication media ranging from StımulusResponse Theory to Agenda-Settıng Theory. [0601-1]
4706. Newsroom Management. (3). (4030). Policy and regula tory aspects of news management; personnel and technical factors governing news production and programming; analysis of
news operations. [0603.1] ne
4708. Journalism 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, lo cal publics and the larger society which depends on a free and 4726.6726 .
4726.6726. Journalism Research Methods. (3). (4175.6175). Familiarization with content analysis, survey research, data analysis, and field studies as practiced by reporters, editors, and public relatıons decision makers. Modern research techniques and class project using computer analysis. PREREQUI SITE. JOUR 2121 or permission of instructor. [0602. 1]
4830. Directed Studies in Journalism. (1-3). Independent study and research, or practicum, or project under supervision. PREREQUISITE: Permission of instructor. NQTE: May be repeated
for a maximum of 3 hours credit during undergraduate educafor a maximum
tion. [0602 5]

## MUSIC

PROFESSOR DAVID R. WILLIAMS, Chairman

## Room 123B, Music Building

APPLICATION AND AUDITION PROCEDURES: Special applicaof the music programs in section 7, Colleges and Degree Programs.
PIANO PROFICIENCY: All undergraduate music students must complete a piano placement examination prior to enrolling in applied music courses in the Department of Music. All music majors must pass the piano proficiency examınation before the beginning of the senior year. This may be done in either of two ways: (1) by successful completion of MUSE 1108 , Class In struction in Piano, or (2) by passing without credit the proficiency in piano based on the level of study described in MUSE 1108. Copies of the requirements for the piano proficiency ex-
amination are available on request in the Music Office. After amination are available on request in the Music Office. After
successful completion of the piano proficiency examination, 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 examina tion with the permission of their division heads and the permis sion of the Piano Division coordinator). Transfer students must
take the proficiency examination during the first semester of take the proficiency examination during the first semes
residence or enroll in Class Piano at the appropriate level.

## K307 MUSIC THEORY AND COMPOSITION (MUTC)

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 saristaction of requir
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. Two 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 laborator
per week. PREREQUISITE: permission of the instructor.
per week.
$[1004.1]$
1004. Music Theory I. (3). (1004). Basic notation, scales, intervals, triads, key signatures; analysis and exploration of techni cal material and written exercises in historical areas of plain-
chant through late 16 th century. CQREQUISITE: MUTC 1010. PREREQUISITE: Theory placement exam. [1004.1]
1005. Music Theory II. (3). (1005). Four art structures, all seventh chords, chorale harmonization figured bass realization
analysis and written exercises from historical area of early 17 th analysis and written exercises from historical area of early 17 th
century through J.S. Bach. COREQUISITE: MUTC 1011 . PREcentury through J.S. Bach. CQREQUISITE
REQUISITE: MUTC 1008,1010 . [1004-1]
1006. Aural Theory I. (1). (1004). Begınning ear traınıng; scales intervals, triads, simple melodic lines and simple two part examples, sightsinging of combination of tonal and model materials. CQREQUISITE: MUTC 1008. PREREQUISITE: Theor placement exam. (1004.1)
1007. Aural Theory II. (1). (1005). Ear traıning involving triads in sequence, two part examples, modulatory melodies; sigtsing
ing of 17 th and 18 th century melodic examples. CQREQUISITE ing of 17 th and 18 th century melodic examples. CQREQUISI
MUTC 1009. PREREQUISITE: MUTC 1010, 1008. (1004 1]
1008. Aural Music Theory III. (1). Two laboratory hours per
week. PREREQUISITE: permission of the instructor. [1004.1]
1009. Music Theory III. (3). (1006). Continuation of four par structure, part writing and figured bass; expanded harmonic materials from ninth chords through chordal mutation; formal materials from ninth chords through chordal mutation; formal
and chordal analysis from Bach through mid-19th century. CQ REQUISITE: MUTC 2010. PRERQUISITE: MUTC 1009, 1011. [1004 1]
1010. Aural Theory III. (1). (1006). Ear training involving expanded harmonic materials, modulatory melodies, two par examples with modulation; sightsinging of 18 th and 19 th cen
tury melodic examples. CQREQUISITE: MUTC 2008. PRERE tury melodic examples. CQREQUSITE: MUTC 1011, 1009 (1004-1)
1011. Composition. (2). Class instruction in free composition emphasis on smaller forms. May be repeated for additional
credit. PREREQUISITE: MUTC 1008 taught as applied music. Students receive the equivalent of one half-hour lesson per week. Fee for this instruction is $\$ 25.00$ per semester. [1004-1]
1012. Composition. (2). Works for piano, voice, chorus, and small ensembles; study of style and analysis of works from mu SIC literature. May be repeated for additional credit. PREREQUI SITE: MUTC 2501 or permission of instructor. NQTE: Compos ition is taught as applied music. Students receive equivalent of
one hour lesson per week. Fee for this instruction is $\$ 50$ per seone hour lesson p
mester. [1004-1]
1013. Introductory Electronic Music. (2). Emphasis on basic techniques of electronic music composition through work in tape manipulation, synthesizer operation, musique concrete; history and aesthetics of electronic music. PREREQUISITE
MUTC 2008 or permission of instructor FEE $\$ 50$. 1004 - 8 ] MUTC 2008 or permission of instructor. FEE $\$ 50$. [1004-8]
1014. Music Theory IV. (3). (3001). Continuation of late 19th century harmonic structures; introduction of popular music and techniques analysis and written examples from 20th century techniques analysis and written examples from 20th century.
CQREQUISITE: MUTC 3009 . PREREQUISITE: MUTC 2008, CQREQUISITE:
1015. [1004-1]
1016. Aural Theory IV. (1). (3001). Ear training involving ex panded 19 th century harmonic considerations, 20th century chromaticism and pandiatomicism, two part examples from both 19th and 20th centuries; sightsinging emphasizing melo dies of 20th century. CQREQUISITTE: MUTC 3008. PREREQUISITE: MUTC 2010, 2008. [1004-1]
1017. Aural Theory V. (1). (3002). Aural exploration of basic forms, cadences amd styles of music; detailed aural analysis of modulatory elements within a piece. PREREQUISITE: MUTC
3009, 3008. [1004 1]
1018. 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 , instrumental combinations. PREREQUSS
3009, or permission of instructor. [1004-1]
1019. Advanced Musical Analysis. (3). (3003). Theoretical analysis of large-scale compositions from the Renaissance to the present. PREREQUISITE: MUTC 3101, 3010. [1004 1/
1020. Advanced Orchestration. (3). Arranging of piano, organ, and choral compositions for full orchestra and chamber ensembles. PREREQUISITE: MUTC 3101. (1004-1)
1021. Band Arranging. (3). Transcriptions of selected works for band and wind ensemble; stage band arranging. PREREQUISITE: MUTC 2008. [1004.1]
1022. Sixteenth Century Counterpoint. (2). Modal contrapuntal technique of 16 th century; writing in two and three parts in
style of Palestrina and Lassus analysis. PREREQUISITE: MUTC style of Palestrina and Lassus analysis. PREREQUISITE: MUTC
1023. [1004.1] 2008. [1004.1]
1024. Eighteenth Century Counterpoint. (2). Contrapuntal techniques of 18th century; writing in two or four parts canon 3108.
1025. Twentieth Century Counterpoint. (2). Contrapuntal tech-
niques of 20 th century; analysis of serial niques of 20th century; analysis of serial techniques in contem porary style. PREREQÚISITE: MUTC 3105 or 3106 . [1004-1]
1026. Compositional Techniques of the Twentieth Century. (3). niques and devices from Debussy to present. [1004.1]
1027. Pedagogy of Theory. (3). Classroom procedures. Demon strations by students and instructor in teaching rudiments of
music, stylistic and structural analysis, and ear-training. PRE. music, stylistic and structural analysis, and ear-training. PRE.
REQUISITE: MUTC 3102 . (1004.1] REQUISITE: MUTC 3102. [1004.1]
1028. Analytical Techniques. (3). Techniques of analysis of styles and structures of music from all periods of music.
[1004.1]
1029. Studies in Music 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 semester hours with be repeated for credit to maximum of 6 seme
permission of department chairman. (1004-8]
1030. Seminar: Music Theory and Analysis. (3). 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]
theory, history and literature; 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. contemporary works and practical application of techniques mendation of upper division examining committee. NOTE Composition taught as applied music. Siudenis receive equiva. lent of one hour lesson per w
$\$ 50.00$ per semester. ( 1004.8 J
1031. Composition for Non-Composition Majors. (3). Class in struction in free composition for students not majoring in com
position. Practical experience in idea generation, form, develop. position. Practical experience in idea generation, form, develop.
ment, and instrumentation. PREREQUISITE: MUTC 3008. ment, and instrumentation. PREREQUISITE: MUTC 3008.
NOTE: Composition taught as applied music. Students receive equivalent of one half-hour lesson per week. Fee for this in struction is $\$ 25$ per semester. [1004.8]
1032. Intermediate Electronic Music. (2). Emphasis on basic techniques through work in tape manipulation, study of history and aesthetics of electronic music. The two hours credit earned from this course may be utilized as composition credit toward composition concentration. PREREQUISITE: for music major
only or with permission of instructor. FEE: $\$ 50.00$. [1004.8]
1033. 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 uti-
lized as composition credit in composition concentration. FEE: lized as comp
$\$ 50 .[1004.8$ ]
1034. Senior Composition Recital. (1). [1004 8]

## K304 MUSIC HISTORY, LITERATURE, AND

APPRECIATIÓN (MUHL)
1101. Music Appreciation. (3). Introduction to music through study of its literature and history; significant compositions ori. ented to their proper social, cultural, economic and political set tings in order to bring about most effective understanding 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 Appreciation. (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]
3301 . History of Music to 1700. (3). Development of significant musical styles; attention to individual contribution of major
composers. PREREQUISITE: MUTC 2008 or permission of in composers. PREREQUISITE: MUTC 2008 or permission of in-
siructor. [1006.1]
3302. History of Music Since 1700. (3). Continuation of MUHL 3301. PREREQUISITE: MUTC 2008 or permission of instructor. [1006. 1]
4001. Piano Repertory. (3). Survey of strınged keyboard reper. tory from Bach and his contemporaries to the present. Repre sentative works analyzed in regard to historical, stylistic, formal
and aesthetIc features. PREREQUISITE: junior standing in mu and ae sthetic features. PREREQUISITE: junior standing in music or permission of instructor. [1004.8]
4002.6002. Song Repertory I. (2). Basic repertoire of old Italian airs and German lieder, as well as introduction to French reper toire of 19th century. [1004.8]
4003-6003. Song Repertory II. (2). French art song and solo vocal works of other nationalistic schools, as well as English and 4004 .
4004. Survey of Chamber Music for Piano. (2). Study of devel opment of works for piano and one other instrument, piano trios, piano quartets and quintets; stylistic analysis of works
from classic, romantic, impressionistic, early 20th century, and from classic, romantic, impressionistic, early 20th century, and
avant:grade repertory. PREREQUISITE: permission of instructor. [1004.8]
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 each
phase of development of two forms. PREREQUISITE: MUHL phase of development of two forms. PREREQUI
3301, 3302 ; or permission of instructor. [1004-1]
4408. Style Periods in Music History. (3). Study of music and historical data from various periods of Western, musical his tory. May be repeated for credit when topic varies. [1006. 1]

001 MEDIEVAL MUSIC
002 RENAISSANCE MUSIC
003 BAROQUE MUSIC
004 CLASSIC MUSIC
005 ROMANTIC MUSIC
006 20th CENTURY MUSIC
4601. Comparative Arts. (3). Cultural activities in their interre lation with each other and with corresponding historic and economic events. Open without prerequisite to non-music majors
of junior and senior standing. (1004.9) 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 through
4801.6801 . American Folk and Popular Music. (3). Folk and
popular elements in American music. Role of mass media, espopular elements in American music. Role of mass media, es-
pecially phonograph record, in utilzing and changing folk mu pecially phonograph record, in utilizing and changing folk mu
sic. Historical development and interrelationships of various musical styles ranging from 19th century minstrelsy to roots of rock and roll. Emphasis on southern Anglo. American and AfroAmerican folk and popular musical styles. [1006.1]
4802-6802. Topics in American Folk and Popular Music. (3). can 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
05 HISTORY OF COUNTRY AND WESTERN MUSIC
006 HISTORY OF ROCK AND ROLL MUSIC

## K316 SACRED MUSIC (MUSA)

4001-6001. Judeo-Christian Music. (3). History of church music from temple to 1000 A.D. Considerable emphasis on Hebrew music, its use as related in scripture and the form and use
of service music in present day temples. Music for sabbath and of service music in present
festival services. [1006.1]
4002. History of Liturgies. (3). Services of liturgical churches and music used generally and specitically by these churches. [1006.8]
4003. Hymnology. (3). Hymns, their authors, composers, and
role in liturgical churches. (1006.8] role in liturgical churches. [1006.8]
4101. Service Playing. (3). Practical keyboard work in performance of basic music used in liturgical and non-liturgical services. Includes keyboard harmony, modulation and simple im.
provisation. NOTE: Taught as applied music. Students receive provisation. NOTE: Taught as applied music. Students receive
equivalent of 2 half. hour lessons per week. Fee for this instrucequivalent of 2 half. hour lessons per w
tion is $\$ 50.00$ per semester. 11004.8 ]
4102. Church Choir and Console Conducting. (3). Instruction in techniques of conducting for both adult and youth or children's choirs; for all church music students, directors and combination organist-directors who must conduct and play simulta-
neously. NOTE: Taught as applied music. Students receive neously. NOTE: Taught as applee music. Students receive equivalent is $\$ 50.00$ per semester. [1004.8]
4103. Basic Organ Improvisation. (2). Practical operational facility in improvised works in trio style, chorale or hymn tune preludes in pattern styles, and embellished melodic lines with
harmonic accompaniments. Emphasis on keyboard harmony harmonic accompaniments. Emphasis on keyboard harmony
and reading from figured basses. PREREQUISITE: permission and reading from figur
of instructor. [1004.8]
4201. Church Choir Organization and Training. (3). Devices and materials for recruiting choir members of various age groups and for integrating them into active musical program. 0832.8]

4801-6801. Studies in Sacred Music. (1-3). Directed individual or class study in selected areas of music chosen in consultation with instructor. May be repeated for credit with permission of
department chairman. May not exceed 6 hours credit. [23038]

## K318 APPLIED MUSIC (MUAP)

Applied music is offered at three levels: (1) major group instruction, (2) lower division, and (3) upper division. Lessons are given by members of the university faculty and by special instructors. Since the number of students who can be accepted is
limited, it is advisable that the student audition as early as pos. sible to be assured a place with the requested teacher. Practice sible 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 enrolled in applied music must simultaneously enroll in a large musical organization each semester with the exception of the practice teaching semester. Non music majors enrolled at Memphis State University as full time, degreeseeking students may enroll and be accepted for applied in struction where staff time is available. If accepted for applied enroll and actively participate in a large musical organization sponsored by the Department of Music. For additional detalls, see LARGE MUSICAL ORGANIZATIONS in this section of the Bulletin.
FEES: In addition to the regular student fees, all persons taking applied music will be assessed $\$ 25.00$ for each half-hour lesson. Students registering for one (1) semester hour credit will receive one half hocr lesson per week. All others will receive
one hour lesson per week regardless of credit hours. 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; until he has auditioned. Auditions are held in the Music Build. ing during the pre-college counseling, advising and registration periods before each semester. Auditions may be scheduled in the Music Office, Room 123, Music Building. Any inquiries concerning credits or course numbers should be directed to the chairman of the Department of Music.
CREDITS AND GRADES: A student may register for one or two hours credit per semester and will be assigned to individual les sons, a master class, or a combination of the two, commensu rate with his level of performance. Additional credit may be earned at the lower division and upper division level. Students earning more than two credits per semester will be assigned additional practice and will be expected to perform at a higher
level than those students registered for fewer credits. Grades level than those students registered for fewer credits. Grades
are awarded on the same basis and have the same significance as in other subjects.
EXAMINATIONS: For an examination in applied music, each student will prepare and perform for members of the faculty of the Department of Music suitable musical selections and tech. nical exercises of a grade of difficulty appropriate to his stand. ing. Examinations are held in designated rooms on days 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. ( $1 / 2$ ). All students electing individual instruction in music and all music majors required to sity, for minimum of seven semesters. Attendance at 12 recit als per semester required. (S $U$ only). [1004.1]
4801. Studies in Applied Music. (1-3). Directed individual or class instruction in applied area not listed umder MUAP. May be repeated, not to exceed 6 semester hours credit. PREREQUI
SITE: permission of department chairman. [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 piano be. fore beginning organ instruction. A student may not receive struction. The fee for major group instruction will be the same as for one half hour lesson per week. $\$ 25.00$ per semester.

LOWER DIVISION COURSES: Applied music courses in lower division include the study normally carried out during
freshman and sophomore years. The piano or instrumental freshman and sophomore years. The piano or instrumental study prior to University entrance so that he has a secure, I ble, and well.grounded technique on his instrument. Organ
ble dents may begin at this level provided that they play the p well and have reasonable ability in sight reading. Those wh not meet this requirement will register for Plano MUAP To be admitted to lower division study a student must first a qualifying examination
Students who fall short of the requirements for admission tc lower division courses will be advised to register for $\pi$ group instruction until deficiencies are eliminated. Co numbers will be repeated for each semesier of study.
UPPER DIVISION COURSES: Promotion to the upper div! does not follow automatically after the completion of fou mesters of courses in the lower division but is made onfy or recommendation of the upper division examining commi ciency as a performer bears promise of future artistic and fessional qualities as a soloist. It is at this level that the stu' normally begins preparation for a recital.
JUNIOR AND SENIOR RECITALS: Most degree plans inclu funior and or a senior recital. To register for recital cred All required recitals must be approved by the faculty. Tr normally accomplished no later than two weeks prior to scheduled date at which time the entire program is perfor for a faculty committee. Only upon successful completio this hearing may a student confirm the scheduled date make arrangements for the printing of the program.
Bachelor of Music majors with concentration in chamber sic must accompany two full recitals or the equivalent.
PREREQUISITE: participation in jury examination for $w$ winds, brasses, and strings. Student should register for the mester heintends to completerequirement
For details regarding recommended and/or required re literature see the Memphis State University Music Departr
Handbook. Handbook.
SMALL ENSEMBLES AND CHAMBER MUSIC: Advanced dents are encouraged (and for certain degree plans are quired) to participate in the following groups. Selection with the approval of the student's advisor. Three one.l meetings per week.
3101. Brass Ensemble. (1). Practical applications of brass formance techniques for a small chamber ensemble, one in
former to a part; survey of brass chamber music. PRERE SITE: permission of instructor. [1004.8]
3103. Jazz Combo. (1). Practical application of basic improvisatory skills, combo experiences in all jazz styles:
3301. Chamber Music for Pianists. (1). Applied work in $F$ ensembles, chamber music, and accompanyıng for woodw brasses, strings, and vocalists. [1004.8]
3401. Percussion Ensemble. (1). Study and performance $c$ sion literature , contemporary, avant garde and pops pe and others through audition. [1004.8]
3402. Contemporary Chamber Players. (1). Ensemble of $\boldsymbol{m}$ and variable instrumentation. Performance of repertoire wi
since 1900 and little known works of other periods. Pri since 1900 and little known works of other periods. Pri goal of ensemble: to provide experiences in solving unique permission of instructor. [1004.8]
3403. Orff Ensemble. (1). Study and performance of literi written for Orff instruments, including barred percussion pitched percussion, and recorder. [1004.8]
3501. String Ensemble. (1). Study and performance of $s$ chamber music repertory. Coaching sessions weekly w
member of music faculty. Open to music majors and member of music faculty. Open
majors through audition. [1004.8]
3502. Collegium Musicum: Strings. (1). Techniques and I ture of early stringed instruments, using lute and viols.
formance of appropriate early music. PREREQUISITE: pe sion of instructor. [1004.8]
3601. Camerata Singers. (1). Small Choral Ensemble. Cha repertory from Renaissance to present. Open to
and non music majors through audition. [1004.8]
3602. Opera Workshop. (1-6). [1004.1]
3603. Opera Soloists. (1). Preparation and performance $c$ in major product
3604. Opera Production Laboratory. (1-6). [1004 8] 3701. Woodwind Ensemble. (1). Study and performance of inal and transcribed works for varied combin
wind instruments. Audition required. [1004.8]
3702. Collegium Musicum: Winds. (1). Techniques literature of early wind instruments, using recorders,
verse flutes, shawm, krumm-horn, etc. Performance of a verse flutes, shawm, krumm-horn, etc. Performance of a
priate early music. PREREQUISITE: permission of instri priate early
[1004.8]

LARGE MUSICAL ORGANIZATIONS
A minimum of eight semesters of large ensemble is requir music majors. *Only one large ensemble credit per sem may be applied to the fulfillment of this requirement. All ul mester in which they are enrolled in applied studio or gro struction. Generally, wind and percussion performers a particıpate in an instrumental ensemble; string performe! o participate in orchestra; and vocal, keyboard, and guita formers are to participate in a choral organization unles igned to a large instrumental ensemble. Transfer stu their large ensemble requirement by simultaneously ent

## ommunication and Fine Arts

a small ensemble with a maximum of 2 credit hours of smal semble applicable to the total large ensemble requirement. semble assignments are based on audition and may be re ated. Any exception to this general ensemble assignment pol will be made after a review of petitions by the department airman, the appropriate ensemble director, and the applieo idio teacher.
Exceptions to this policy are pianists (with concentration in iformance, Pedagogy, or Chamber Music) and guitarists, hore required to have a minimum of 6 semesters of larg semble: and music education majors who may choose not to sembll in applied study and a large ensemble during the mester in which they are practice teaching Therefore musi mester in which they are practice teaching. Therefore, musi ucation majors are required to have a minimum of mesters of large ensemble

## 101. University Concert Band. (1).

001 UNIVERSITY CONCERT BAND Performance of tra ditional and contemporary wind compositions. Participants chosen from this ensemble for basketball pepbands. Open to music majors and non-music majors. [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]
02. Marching Band. (2). Selected ensemble which performs all home football games and occasional out-of-town games in ch season. Rehearsal approximately ten hours weekly. Open music majors and non-music majors. [1004-1]
03. University Glee Club. (1). Study and performance of cho works from different stylistic periods. Development of sing voice, rhythmic and sight-singing skills. Open to music and n-music majors. [1004-1]
04. University Black Gospel Choir. (1). Ensemble open to all idents. 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 in strumentalists. Study and performance of outstanding reper. tory for wind ensembles. Open to music majors and non-music 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. Audi tion required [1004-1]
3006. University Chorale. (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 produc ions with exploration of related stage techniques Extra re hearsals at discretion of conductor. Audition required. [1004- 7 ]

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 re quired. [1004-1]
3010. University Jazz Ensemble. (1). (3102). Study and per formance of varied jazz styles, including repertory from stand ard 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. [1004-1]
3011. Recording Siudio Lab Orchestra. (1). Recording orches tra for string and wind performance. To perform and record works written by students in Commercial Music program. [1004 8]


## APPLIED MUSIC COURSES [1004.8]

| Instrument | $\begin{aligned} & \text { Major Group } \\ & \text { Instruction (2) } \\ & {[1004-8]} \end{aligned}$ | Lower Division (1-4 each) [1004-8] | $\begin{aligned} & \text { Upper Division } \\ & \text { (1.6 each) } \\ & {[1004-8]} \end{aligned}$ | $\begin{gathered} \text { Junior Recital } \\ \text { (1 each) } \\ \text { [1004.8] } \end{gathered}$ | $\begin{gathered} \text { Senior Recital } \\ (1 \text { each }) \\ {[1004-8]} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |
| Cello | 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 |
| 8assoon | 1750 | 1751 | 4751-6751 | 4758 | 4759 |
| Recorder | 1760 | - | - | - | - |

## K313 MUSIC EDUCATION (MUSE)

 FIELD OF ENDORSEMENTS FOR TEACHING: Endorsement may be obtained in Instrumental Music, and in School Music (choral). Normally a student can expect to be recommended in onlyone of these areas. School Music (choral emphasis) applicants one of these areas. School Music (choral emphasis) applicants should be able to play piano accompaniments of average ditti-: culty, 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 satisfactorily meet piano and voice requirements with completion of MUSE 1108 and MUSE 1113, with their prerequisites. Study in one in strument of major emphasis and participation in concert and marching bands, orchestra and a variety of smaller ensembles will also be required. A graduation recital is required of all students who expect to graduate with the Bachelor of Music Education with a concentration in School Music (choral) or in Instrumental Music.
The following courses, MUSE 1101 through 1104, are designed to teach the 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. Class Piano for Non-music Majors. (2). Beginning instruction in piano for non-music majors. Development of basic reading and performance skills. Two labora tory hours and mini. mum of five hours preparation per week. [1004-1]
1101. Class Instruction in Brass Instruments. (2). Basic per formance skills and teaching techniques on trumpet, trombone, French horn, baritone horn and tuba for those who intend to teach instrumental music in schools. [0832-1]
1103. Class Instructlon in Percussion Mathods. (2). Basic per formance skills and teaching techniques on snare drum, timpani, and keyboard percussion instruments for those who inhours per week. [0832.1] 1104. Class Instruction in Woodwind Instruments. (2). Basic performance skills and teaching techniques on clarinet, flute, saxophone, oboe, and bassoon for those who intend to teach in-
strumental music in schools. Two laboratory hours per week. strumenta
[0832.1]
1105. Class 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. PRE-
REQUISITE: MUSE 1105 . [1004-1] 1107. Class Instruction In Plano. (2). Simpler Bach chorales, more difficult songs, and accompaniments, appropriate to the student's major field; memorization optional. PREREQUISITE:
MUSE 1106 . 1004 . 1 ] 04.1)
1108. Class Instruction in Plano. (2). Selected easier studies and compositions by Czerny, Concone, Beethoven, Chopin, Schumann, Bartok, and others. Final examination includes ma-
terials to satisty requirements for piano proficiency examinaterials to satisty requirements for piano proficiency examina-
tion, copies of which are available in music office. PREREQUItion, copies of which are ava
SITE: MUSE 1007. [1004-1]
1109. Class 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). Continuation of 1 109. Two laboratory hours per week. [0832.1]
1111. Class Instruction in Guitar. (1). Functional accompanying skills as commonly used in folk and popular music. Basic and intermediate performance technique appropriate to the stu-
dent's ability. May be repeated once for additional credit. dent's ab
[1004.1]
1112. Class Instruction in Voice. (1). Fundamentals of vocal production useful for all music teachers. Two laboratory hours per week. [1004.1]
1113. Class Instruction In Voice. (1). Continuation of 1112 with more emphasis on solo singing of easy songs. Two laboratory hours per week. [1004-1]
1115. Classroom Instruments: Guitar and Recorder. (2). Development of basic performance and teaching skills in guitar and recorder. Analysis of teaching materials and repertory applicable for elementary and secondary education. Integration of guitar and recorder into classroom music and chor al music ensem-
bles. PREREQUISITE: MUTC 1009. Open only to music majors bles. PREREQUISITE: MUTC 1009. Open on/y to
or by special permission of instructor. [0832.1]
3001. Classroom Muslc Methods I. (3). Required of all Elementary Education majors. Experıences in singing, moving, listening, performing, and describing simple music appropriate for use in the elementary school. [0832-1]
3002. Classroom Music Literature. (3). Experiences with planning and teaching contemporary music methodologies including those of Orff, Kodaly, Contemporary Music Project, and the
Manhattanville Project. PREREQUSITE: MUTC 2008 or permisManhattanville Project. PREREQUSITE: MUTC 2008 or permis-
sion of instructor. [0832.1]
3700. Basic Conducting. (2). Development of conducting skills.
Basic baton principles, rhythmic analysis, expressive tech. Basic baton principles, rhythmic analysis, expressive technıques, phrasing, and multi-metered problems. Class meetings require performing as instrumentalist or vocalist as well as con-
ductor. Three class hours per week. PREREQUISITE: Comple. ductor. Three class hours per week. PREREQUISITE: Comple-
tion 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 various periods of music history. 1004.8
4001-6001. Orff.Schulwerk Workshop for Classroom Teachers.
(3). Broad, practical introduction to use of Orff. Schulwerk (3). Broad, practical introduction to use of Orff. Schulwerk
method of elementary music teaching. Development of permethod of elementary music teaching. Development of per-
formance leadership skills stressed. Not open to music majors. PREREQUISITE: one course in music methods or equivalent ex. perience. [0832. 1]
4002-6002. Orff.Schulwerk Workshop for Classroom Teachers II. (3). Second level Orff.Workshop course for non-music ma. jors. Emphasis on process of teaching; includes rhythmic train-
ing, elementary solfeggio, exploration of folk song materials
suitable for children, and development of lesson plans. PRE REQUISITE: MUSE 4001 and rudimentary skills on soprano
4201.6201. Special Problems in the Teaching of Muslc. (1.3).
Class or individual study of problems and opportunities taced Class or individual study of problems and opportunities faced by person who teaches music in schools; for classroom teachers, music teachers, supervisors, principals, and administrators. May be repeated, but not for the purpose of changing a previous
[0832.8]
4202. Materials and Methods of Muslc, Grades K.6. (3). Aims 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
surveyed. [0832.1]
4203. Materials and Methods of Classroom Muslc. (3). (Same
as SCED 3322). Philosophy, methods, and materials for teach. as SCED 3322). Philosophy, methods, and materials for teaching non-performance music classes in secondary school,
grades 7 -12. Includes demonstration, observations, and simugrades lation of classroom teaching at this level. [0832-1]
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, strument maintenance stressed. Lab experience. PREREQUISITE: junior standing in music. [0832.1]
4205-6205. Marching Band Techniques. (2). Organizing and conducting the marching band; gridiron charting and marching procedures with a study of precision drill, formations and pag-
eantry. PREREQUISITE: permission of the instructor. [1004-1]
4206-6206. Music for Exceptlonal 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 development, social adjustments, motor coordination, aural and visual perception (team taught with Special Education). PREREQUI-
SITE: SPER 2000 for music education majors; MUSE 3001 for SITE: SPER 2000 for music education majors; MUSE 3001 for
special education majors; or permission of instructor. [0832-9] 4207. Choral Methods and Materlals. (2). Selected materials 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. voice class development, choral publishers, units
PREREQUISITE: junior standing in music. [0832-1]
4208-6208. Band Literature. (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. backgroun
[0832.1]
4209. Piano 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 maincountered by common musical instruments; frequently en countered by repair problems which must be handled immedi-
ately by teacher. Some basic tools required. May be repeated ately 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 mak. ing arrangements for choral ensembles and organizations.
Study of vocal needs involved and techniques of meeting them, Study of vocal needs involved and techniques of meeting them,
including class performance and evaluation of assigned including class pe
projects. [1004-1]
4401. Music Education: Philosophical Foundations. (3). Historical, philosophical, psychological, social, and aesthetic founda sic educator's role in the community. Evaluative techniques. [0832.1]
4501. Basic Piano Pedagogy. (3). Emphasis on elementary pi ano methods including Pace, Suzuki, and class techniques PREREQUISITE: permission of instructor. [0832-8]
4503. Advanced Piano Pedagogy. (3). Approaches to the teaching of piano technique, repertory, and musicianship. For upper level in keyboard. [0832.1]
4504.6504. String Pedagogy. (3). Various methods of teaching strings with special emphasis on contemporary theories of pe dagogy; observation and laboratory teaching in MSU String Pre-
paratory and the Suzuki Talent Education Divisions. For string students. PREREQUISITE: permission of the instructor. [0832. 1]
4505. Principles of Accompanying. (3). Performance class involving practical study of instrumental and vocal standard repertory and the problems of ensemble playing. Facility in sightreading and ability to assimilate music rapidly. Score-reading
transposition and figured bass realization introduced as skills transposition and figured bass realization introduced as skills
necessary to well rounded musicianship. PREREQUISITE: pernecessary to well rounded musi
mission of instructor. [1004.8]
4506-6506. Introduction to Suzuki Talent Education for Strings. (3). Required of students who plan to serve as apprentice string teachers in the MSU Suzuki Talent Education program. Basic instruction in the Suzuki philosophy; participation with parents and children in Suzuki string classes. [0832-1]
4507. Organ Pedagogy. (2). Repertory materials suitable for fundamental teaching as well as methodology in techniques,
analysis and registrational concepts. PREREQUISITE: permis. analysis and registrational
sion of instructor. [0832.1]
4508.6508. Principles of Suzuki Plano. (3). Suzuki philosophy applied to development of the child's abilities and the role of
the teacher and parent. Students will analyze the technical and the teacher and parent. Students will analyze the technical and
musical instruction of the beginning piano student. [0832.1] 4700. Instrumental Conducting. (2). (3701). Various problems encountered in preparation and conducting of instrumental o conduct instrumental groups. Three class hor each studen PREREQUISITE: MUSE 3700.[1004-1]
4701. Choral Conducting. (2). Various problems encounter preparing and conducting traditional and contemporary
scores; rehearsal techniques; individual practice with lat scores; rehearsal techniques; individual practice with lat
tory groups. Three class hours per week. PREREQUIS tory groups. Three cias
MUSE 3700. [1004-1]
4799. ConductIng Recltal. (1). [1004-8]

4801-6801. Teaching Music Comprehensively. (3). Metl course designed to bring music theory, history, literature, music at any level - elementary, junior high, high school. lege, and private studio. [0832-1]
4802.6802. Introductory Workshop in Orff.Schulwerk. Basic Orff-Schulwerk techniques including body movement prano recorder, percussion, vocal performance, improvisi
and arranging. PREREQUISITE: junior standing in music and arranging. PREREQUISITE: junior sta
cation or equivalent experience. [0832-1]
4803-6803. Intermedlate Workshop In Orff.Schulwerk. (3) termediate level Orff techniques, including modal harmol tion, irregular rhythms, alto recorder performances and $r$
extensive improvisation and arranging. PREREQUISITE: 4802 or its equivalent in experience. [0832-1]
4804.6804. Teacher's Workshop in Orff-Schulwerk. (3). vanced Orff-Schulwerk techniques including original corr
ition, complex form, movement and instrumental arra ition, complex form, movement and instrumental arra
ments, tenor and bass recorders performance, and adva ments, tenor and bass recorders performance, and adva
improvisation. PREREQUISITE: MUSE 4803 or its equivale improvisation. PRERE
experience. [0832-1]
4805.6805. Workshop in Double Reed Techniques. (3). Fol dents who are not specialists on oboe or bassoon; pedago reed-making and adjusting. A set of tools basic to making $r$ is required. [0832-1]

## K320 COMMERCIAL MUSIC (CMUS)

1811. Electronlcs Technology I. (3). (Same as TECH 1811 troduction to fundamental electrical and electronic theory devices, circuit and network theorems, with laboratory err
sis on basic electrical measurements and the proper use, sis on basic electrical measurements and the prop
struments. PREREQUISITE: MATH 1213. [1099.1]
1812. Music Theory: Jazz/Pop/Commercial I. (3). (N 2101). Theory of jazz, pop, and commercial music styles. I tures, notation, articulation, rhythmic patterns; analysis of ten and recorded jazz, pop, and commercial music; trans tion of recorded materials. PREREQUISITE: MUTC, 10 [1009-1]
1813. Lettering and Layout. (3). (Same as Art 2213 ). Intre tion to graphic design: problems involving use of typogri principles amd techniques of layout
roughs and comprehensives. [1002.1]
1814. Graphic Production. (3). (Same as Art 2221). Pre tion of copy for photomechanical reproduction: Printing cesses, halftone amd line
type and paper. [1009.1]
1815. Promotion and Management of Artists. (3). Problen volved in management and promotion of recording artist personal appearance contracts; concert promotions and sonal appearances as they relate to development of art sonal appearances as they relate to development of art
portfolio will be completed. PREREQUISITE: CMUS 3 z porttolio
[1099.1]
1816. Record Promotlon and Sales. (3). Current practio promotion and sale of recordings. Emphasis on radio $s$ s
music formats and other methods of exposing recordings music formats and other methods of exposing recordings
public. Sales portion examines wholesale, one-step, rack retail store sale of recordings. [1099.1]
1817. Packaging and Display. (3). (Same as ART 3223). age designıng and display techniques. PREREQUISITES: $\mathbf{C}$ 1. [1099.1]
1818. Production Laboratory. (1-3). (Same as THEA 35 , Preparation for and participation in departmental theatre
ductions. Individualized work in form of supervised laboi ductions. Individualized work in form of supervised laboi
situations. Running crews for season productions selected participating sections. May be repeated for credit. [1099.8

001 PUBLICITY (1)
002 COSTUMES (1)
003 LIGHTS (1)
004 SOUND
005 SCENERY (1)
006 PROPS (1)
007 MAKE UP (1)
008 HOUSE MANAGEMENT (1)
009. SPECIAL EFFECTS. (2). Instruction in how to create stage fires, explosions, smoke, rain, snow, der, lightning, supernatural illusions, etc. Offered
nate years. PREREQUISITE: permission of instruct 010. SOUND SYSTEMS AND DESIGN. (3). Classe lab work. Basic electronics and system hookups. equipment use and aesthetics. Offered atis
3800. Recording Studio Procedures. (3). From creation to ufacturing of finished product; managing recording sio PREREQUISITE: Open only to C
mission of instructor. [1099. 1]
3823. Television and Film Production and Aesthetics I) (Same as COMM 3823). Basic production skills and it
studio control, recording, still photography, studo and studio control, recording, still photography, studo and Three hours lecture-demo-critique; two hours laboratory REQUISITE: permission of instructor. [1099.8]
3824. Television and Film Production and Aesthetics 1 (Same as COMM 3824). Intermediate production skills ar, it
ory; audio mixing including film sound, motion picture p raphy and editing, graphics, TV production, Aesthetics 0 raphy and editing, graphics, TV production, Aesthetics o critique; two hours laboratory. PREREQUISITE: CMUS
151. Acoustical Equipment and Studio Techniques. (3). (Same TECH 3861). Application and operation of microphones agnetic tape recorders, signal processing equipment, recordstudio consoles, noise reduction devices, speakers, and
ddio session procedures. Three lecture two laboratory hours Idio session procedures. Three lecture two laboratory ho
$r$ week. PREREOUISITE: TECH OR CMUS 1811. [1099-1]
02. Composer's Workshop: Jazz/Commercial. (3). (MUTC 02). Composition in musical styles for various sizes of instru antal and vocal groups; writing for commercials, arranging ording
j99.11
03. Jazz and Studio Ensemble Techniques. (3). (MUTO 03). Jazz and studio performance styles, emphasizing ar iging, ensemble technique, articulation, phrasing, recording

001 INSTRUMENTAL PERFORMANCE
002 VOCAL PERFORMANCE

1. Studies in Commercial Music. (1.3). Class or individual dy of special problems in Commercial Music. May be re ated if course content differs. [1099.8]
2. Introduction to Commercial Music. (3). (MUHL 4602). e music industry including copyright, royalties, producing or relations, promotion, advertising, and distribution.

## 999.1

3. Proseminar in Commercial Music. (3). (MUHL 4603). of commercial music with lecturers and distinguished ests from the industry. Individual proiects required. PRE
QUISITE: CMUS 4602 or permission of instructor. [1099-1]
4. Problems in Recording. (1-3). Independent projects in
ording. May be repeated to maximum of nine hours but no ording. May be repeated to maximum of nine hours, but no purpose of changing grade originally given. [1099.8]
5. Radio and Television Sales and Advertising. (3). (Same as MM 4831). Relation ot radio and television advertising tion, network, and sroups. PREREOUISITE: CMUS 3823 . encies,
6. Professional Commercial Music Seminar. (3-12). Inde ddent project resulting in sufficient material to constitute one $g$-playing album or an extensive promotional campaign. Re red of students not placed in internship. May be repeated for to 12 hours credit. [1099.8]
7. Internship. (3-12). Minimum of one semester of field rk experience in selected area(s) of the music industry. May nt interview and completion of program in Recording Eng zring. [1099.8]

# THEATRE AND COMMUNICATION ARTS 

PROFESSOR MICHAEL M. OSBORN, Chairman

## Room 143, Theatre and Communication Arts Building

Department of Theatre and Communication Arts offers centrations in general speech and theatre, broadcasting. nmunication, film and videotape production, and theatre; re rements for these and B.F.A
liege and Degree Programs.
TE: Students may take theatre and communication arts tabo ory courses (vis. COMM 3301, THEA 3541, 3542) as ofter advisor will allow. None of these courses may be repeated fo purpose of improving the grade originally given.

## K491 THEATRE (THEA)

Professor Russell G. Whaley, Director
12. Voice and Articulation for the Performer. (4). Especially the actor, concentrates on voice-body mechanism as it re nds to communicative image. NOTE: Students who have re
ved credit for SPCH 1211 or COMM 1211 may not receive ved credit for SPCH
dit for THEA 1212. [1007.1]
11. Basic Oral Interpretation. (3). Introduction to interpretaIof literature in performance. To develop and heighten per mer's responsiveness to his literary text. (1007.1]
51. Introduction to Theatre. (3). Consideration of all dra tic elements of theatre from viewpoint of audience
cussions of theory and practice focus on plays attended by cussions of theory a nd practice focus on plays atte
iss during semester. (See THEA 3541-008). [1007.1]
51. Introduction to Design. (3). Historical and conceptual vey of basic elements of production - scenery, costumes hiting, sound - and their relation to theatrical production cess. [1007.1]
21. Stage Movement. (3). Introduction to movement as basic nent of actor's craft. Focus on recognition, development, 4 understanding of natural physical actions and rhythms and ir application to stage. [1007-1]
32. Theatre Dance. (3). Introduction to elements of move int patterns and rhythms for stage. PREREOUISITE: THEA 1.
11. Theatre Crafts. (3). Lecture/laboratory covering all Ises of craft skills and equipment involved in technical thea Care and maintenance of equipment emphasized as well a isafe practical and proper application. (1007.1]
12. Introduction to Theatre Graphics. (3). Introduction to ar ic graphic communication processes of technical theatre. In des methodology and importance of beginning sketching
iting; costume, set, and light design; as well as poster and gram graphics. [1007.1]
5. Stage Make-up. (3). (SPCH 2541). Fundarmentals of ight and character make-up. Application of principles gov-

Practical experience in make-up through various productions [1007.1]
2530. Acting for Non-Majors. (3). Introduction to craft of acting. Development of actor's individual potential through basic technique. Performance of short scenes in class. [1007.1]
2531, Basic Acting Techniques. (3). First essential of acting study: exploration of the actor. Class exercises to develop relaxation, concentration, imagination, and improvisation skills. [1007.1]
2532. Character Development. (3). Principles of role analysis through study of subtext, character motivation, and objectives. PREREOUISITE: THEA 2531 or permission of instructor. [1007.1]
3411. Performance of Poetic Forms. (3). (SPCH 2411). In depth study of poetic literature as interpreted by the performer To develop and heighten performer's sensitivity to language styles and rhythms. [1007-1]
3412. Interpretation Experiments. (3). (SPCH 2412). Intensive study of theatrical image. Creative exercises in imaginative use of space, time, and experimental script materials in directing for the stage. [1007.1]
3451. Directing Interpreter's Theatre. (3). Theory and tech niques in staging of experimental forms; poetic, narrative, and compiled scripts. [1007.1]
3461. Interpretation of Black Literature. (3). Principles and practice relative to oral interpretation of poems, speeches, and plays written by Black Americans. PREREOUISITE: THEA 1411 [1007. I]
3505. Stage Combat. (3). (3503). Study and practice of tech niques for physical conflict including fencing, staged fights, umbling, and general military arts. Offered alternate years. PREREOUISITE: THEA 2501. [1007.1]
3506. Movement Styles. (3). (3502). Exploration of movement and dance of different historical periods as well as special areas such as mime and tai chi. [1007-1]
3511. Stagecraft I. (3). Lecture/laboratory includes theatre ter minology, theatre forms, production organization, job descriptions, and safety. Scenery construction to include painting, flat scenery, three dimensional scenery, and introduction to steel materiais. Required lab work. PREREOUISITE: THEA 2511 or 2512. [1007.1]
3512. Stagecraft II. (3). Lecture/laboratory includes shifting scenery, flying, rigging, properties design, and construction. Lectures and demonstrations on color in theatre and scenery UISITE: THEA 3511. [1007-1]
3513. Lighting and Sound Mechanics. (3). (SPCH 4511). Intro ductory study of technical principles which support areas of theatrical lighting and sound design. Includes instrumentation and equipment, electricity and electronics, control systems, op erational and maintenance principles and procedures for stage electricians and sound engineers. [1007-1]
3520. 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]
3521. Directing. (3). Basic organizational techniques of stage direction. [1007. 1]
3523. Lyric Theatre. (3). Analysis of earlier and related music. theatre forms, but focus on the "musical" as a unique theatr cal form. Selected scenes directed and performed. [1007-1]
3531. Scene Study. (3). Development of ensemble work within scenes. PREREOUISITE: THEA 2532. [1007-1]
3532. Advanced Scene Study. (3). Continuation of 3531. Atten ion to material from modern classics. PREREOUISITE: THEA 3531. [1007-1]
3541. Performance Laboratory. (1-3). (3401). Practical applica tion laboratory for performance courses and special workshops (Repeatable for credit). (1007-8]

001 . ACTING TECHNIOUES (1). To be taken in conjunc tion with 2531/2532 - Section 1 only
OO2. ACTING TECHNIOUES. (1). To be taken in conjunc tion with 2531/2532 - Section 2 only.
003. SCENE STUDY. (1). To be taken with $3531 / 3532$ only.
04. STYLES. (1). To be taken with $4531 / 4532$ or 6531 6532 only.
O05. AUDITION PREPARATION. (1). Weekly meeting to eview/critique actors' audition choices and progress. 006. VOICE TECHNIOUES. (1). For students seeking critcal review and help with preparation and delivery of mu sical pieces
007. STAGE MANAGEMENT. (1). Lecture and training sessions precede actual assignment to departmental productions. Stage managers work closely with director and oversee entire backstage operation during produc tion run.
008. ANALYSIS. (1). Critical perceptions of Performance and Production) skills developed through written critiques. Students evaluate at least 5 theatrical produciques. Students evaluate at least 5 theatrical produc tion with THEA 1551. Guidelines of critique content/ format available in Theatre Office (143).
009 NON.MAJORS. (1). For students (not theatre ma ors) who are, or wish to becorne, involved in Season or Lunchbox productions. A theatre faculty member helps students prepare for auditions.
010. TV/FILM. (1). To be taken with $4631-6631$ on/y.

011 . TOURING. (1). In conjunction with departmental ensemble groups only
012. MUSIC-THEATRE WORKSHOP. (1). To be taken with THEA 3523 (Lyric Theatre), or as part of Summer Program
013. TOURING. (2). In conjunction with departmental
014. MUSIC-THEATRE WORKSHOP. (2). Summer Program.
015. MUSIC-THEATRE WORKSHOP. (3). Summer Pro gram.
3542. Production Laboratory. (1-3). (3501). (Same as CMUS 3542). Preparation for and participation in departmental theatre productions. Individualized work is in form of supervised laboratory situations. Running crews for season productions selected from participating sections. May be repeated for credit. [1007.8]

1. PUBLICITY. (1).
2. COSTUMES. (1)
3. LIGHTS. (1).

OO4. 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, thunder, lightning, supernatural illusions, etc. Offered alter nate years. PREREOUISITE: permission of instructor
010. SOUND SYSTEMS AND DESIGN. (3) Classes and lab work. Basic electronics and system hookups. Actual equipment use and aesthetics. Offered alternate years. equipment use and aestietics. Offered
3561. Scene Design. (3). New materials and methods of theatrical rendering of costumes and scene designs. Includes water color, acrylic, three dimensional models, and other media
[1007.1]
4401-6401. Interpretation of Children's Literature. (3). Adapta tion of literature for individual and group performances in chil dren'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 Dialects. (3). Study and practice of foreign dialects for American stage Offered alternate years. PREREO 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 Eli. zabethan-Metaphysical, Romantic, Victorian, and Modern perıods. PREREOUISITE: THEA 3411 . [1007-1]
4431-6431. Interpretation of the Novel. (3). Studies in oral in terpretation of prose fiction; attention to various literary styles and structures. PREREOUISITE: THEA 3411 . [1007-1]
4441-6441. Interpretation of Drama. (3). Performance and analysis of scenes from classical and modern drama. May be repeated for maximum of 9 semester hours. [1007-1]
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 development of technique, and refinement of personal as well as period ment of technique, and refinement of persona
styles. PREREOUSITE: THEA 3506. [1007.1]
4502.6502. Ensemble Movement. (3). Performance troupe blends improvisational techniques, voice, mime, acting, and physical movement. PREREOUISITE: permission of instructor. [1007. 1 ]
4503.6503. Creative Dramatics. (3). Basic techniques and the ories for use of dramatization in elementary and secondary ed. ucation. Includes socio-drama, dramatization of school subjects and daily concerns, and improvisation and creation of dramatic plays. [1007.1]
4515.6515. Scene Painting. (3). (SPCH 4563). Lecture laboratory covering techniques of painting scenery for stage. Offered alternate years. PREREOUISITE: THEA 3561. [1007.1]
4516.6516. Technical Direction. (3). Lecture/laboratory for theatre technicians includes production organization and safety, engineerıng, rigging, materials control and supply or dering. Offered alternate years. PREREOUISITE: THEA 3512. [1007-1]
4517.6517. Materials and Technology (3). Lecture/laboratory with general introduction to materials includes carpentry and umber, metal-working and welding, tiberglass construction and casting, rigid and flexible foams and thermoplastics. Offered alternate years. PREREOUISITE: THEA 3512. [1007-1]
4518-6518. Speclal Technologies. (3). (3522) Lecture seminar/practicum in depth investigation of selected technologles as they apply to theatre. Technologies examined in their natural environment and in relation to theatrical environment. Topics selected from pneumatics, hydraulics, plastics, metal. working, woodworking, rigging, electrical and electronic systems, computers, and others. Offered alternate years. (May be repeated for a maximum of 9 hours credit). PREREOUISITE: permission of instructor. [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 maximum of 6 hours.) PREREOUISITE: THEA 3521. [1007.8]

4523-6523. Children's Theatre. (3). Exploration of theories and styles of children's theatre, application of principles to prob lems in production and preparation of plays designed for children'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 repeated for maximum of 6 hours.) PREREOUISITE: THEA 3532. [1007.8]
4532-6532. Advanced Acting Styles. (3). Continued work in act ing styles. (May be repeated for maximum of 6 hours.) PRE ing styles. (May be repeated for
REOUISITE: THEA 4531 . [1007-8]
4541. Internship. (1-12). (4011). Supervised work in actual uni versity, community, or professional theatre productions on in ternship basis. Credit varies with amount of time and responsibility involved. (May be repeated for a maximum of 16 semest hours.) B.F.A. students to complete full internship of 12 to 16 hours. [1007.5]
4551.6551. Theatre History - Classic. (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 ad vanced student who wishes to do concentrated study in specific area of theatre. May be repeated for maximum of six hours PREREQUISITE: permission of instructor. [1007.8]
4554.6554. Costume History. (3). Clothing from Gothic to mod ern times. Lecture/research requiring student to make simple line drawings of historical examples. [1007.1]
4556.6556. Undergraduate Seminar in Black Theatre. (3). (4566). Selected topics in contemporary black theatre. May be repeated up to six hours. PREREQUISITE: permission of instructor. [1007.1]
4562-6562. Costume Design. (3). Theory and techniques of costume design studied through series of design assignments Study of color, line, fabric, and rendering styles. Special consid.
eration given to character interpretation. PREREOUISITE: eration given to cha
THEA 4554. [1007.1]
4564. Scenography. (3). Total production design - coordina. tion of all aspects of costume, scenery, and lighting into whole of production. (May be repeated for maximum of 6 hours.)
4565-6565. Applied Design. (3). Application of major theatrical styles to selected production problems. Emphasis on selection of elements to recreate period styles for stage design. Offered alternate years. PREREQUISITE: THEA 4564. [1007-1]
4567.6567. Lighting Design. (3). (SPCH 4512). Lecture/ seminar/practicum investigation of art of theatrical lighting dedologies, procedures and practices for working designer cue techniques, design styles and forms, and criticism of lighting design. Research, proiect work, and staged scenes required. PREREQUISITE: THEA 3513. [1007.1]
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 productions required. PREREQUISITE: THEA 4567.
$[1007.1]$ [1007.1]
4569-6569. Styles of Design. (3). (SPCH 3562). Historical evo lution of, and practical approaches to, major styles of produc tion design that dominate contemporary theatre. PREREQUI
SITE: THEA 3561. [1007.1] 4571.6571. Playwriting. (3). Theory and principles of writing
plays for stage. Practice in writing either short or long play May plays for stage. Practice in writing either short or long play. May
be repeated for maximum of 9 semester hours. PREREQUI. be repeated for maximum of 9 semes
SITE: permission of instructor. [1007.8]
4581.6581. Dramatic Theory and Criticism. (3). Major docu ments in dramatic theory and criticism from Aristotle to present. [1007.1]
4582.6582. Analysis of Dramatic Literature. (3). Examıning the script as blueprint to discover and evolve particular components which lead to its artistic fulfillment and unity. Advanced techniques of director and scenographer used to solve artistic/
practical problems of specific plays. PREREOUISITE: THEA practical problems of specific plays. PREREQUISITE: THEA
4551 or 4552 . 1007.1 ] 4551 or 4552 . [1007.1]
4591. Theatre Management. (3). Basic box office and publicity procedures for theatre. Offered alternate years. [1007.1]
4592. Theatre Planning and Architecture. (3). Processes and techniques employed by theatre planners in design and construction/renovation of theatrical spaces and structures. In cludes survey of theatre forms, historical development of theat rical structures and spaces, programming methods and
procedures, specification, renovation techniques, multi-use procedures, specification, renovation techniques, multi-use
structure concepts, and consultation procedures and practices. structure concepts, and consultation procedures and practices.
Offered alternate years. PREREQUISITE: permission of instruc Offered altern
tor. [1007.1]
4631-6631. Acting for Film and Television. (3). Educational ex perience for actor in media of film and television, concentrating on dramatic, commercial and documentary areas. PREREQUI.
SITE: THEA 2531 (for acting majors) - QR - COMM 3823 or SITE. THEA 253
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 set tings. (1007.1).

## K493 COMMUNICATION STUDIES (COMM)

## DR. JOHN P. BAKKE, Director

1211. Voice and Articulation. (3). Principles of effective voice usage. Emphasis on improving voice characteristics and dic tion. [1506.1]
1212. Public Speaking. (3). Principles of ethical and effective public speaking; practice in construction and delivery of origi nal speeches in presence of audience. [1506. 1]
1213. Introduction to Human Communication. (3). Principles and processes underlying all human communication. Study o communication models, communication purposes and break downs, and variables related to interpersonal, small group, in tercultural, and public communication. [0601.1]
1214. Introduction to Rhetorlc and Communication Arts. (3). Principles, values, forms, and effects of persuasive public com-
munication. Consideration of rhetorical styles and effects in speeches, debates, documentaries, and dramatic and enter. tainment forms. [0605-1]
1215. Media in Modern Society. (3). Historical, cultural, technological, economic, political, and social factors which help shape
mass media messages in changing American society. [0601-1]
1216. Argumentation and Debate. (3). Basic principles of argumentation, emphasis on developing practical skills in analysis, reasoning, evidence, and organization of argumentativ,
speech role of debating in contemporary society [1506.1]
1217. Persuasive Speaking. (3). Study and practice in meeting special demands of persuasive speech situation. Advanced training in use of arguments and development of effective style.
[1506-1] 2361. Black Rhetoric. (3). Speeches and rhetoric of black man's struggle in America. Emphasis on spokesmen such as
Walker, Turner, Douglass, Washington, DuBois, Malcolm X, Walker, Turner, Douglass, Washington, DuBois, Malcolm X,
King, Carmichael, Baldwin, and Jones. [i506.1] 2781. Introduction to Rhetorical Theory. (3). Theories of per-
suasion and communication from ancient to contemporary suasion and communication from ancient to contemporary
times. Emphasis on classic tradition as related to interpersonal and societal communication. [1506.1]
1218. Speech for the Elementary Classroom Teacher. (3). Emphasis on voice and articulation, classroom speaking, and oral interpretation of literature. [1506.1]
1219. Speech Communication in Organizations. (3). Information flow, communication systems, and communication breakdown in contemporary organizations. Emphasis on business,
governmental, and institutional structures. [0601-1]
1220. Communication in Politics. (3). Types of political communication between politicians and constituencies; emphasis on presidential rhetoric and campaign speaking and communi-
cation via mass media. Includes practice in construction of cation via mass media. Includes practice in construction of
model political speeches. [0601-1] model political speeches. [0601-1]
1221. Speech Communication Laboratory. (1). Independent and organized preparation for study and practice of speech communication in non-classroom situations. Includes intertion projects. One hour credit each semester for three hours of supervised work per week. [0601.8]
1222. Theories of Persuasion. (3). Principles underlying any communication designed to influence attitudes or behavior. In-
cludes approaches to motivation, perception, message struccludes approaches to motivation, perception, message struc-
ture, attention, reasoning, audience analysis, persuasibility, and attitude change. Items for analysis drawn from speeches, advertising, radio, television and film. (0601.1)
1223. Discussion. (3). Study and practice of principles and techniques of discussion, dealing with current problems of wide tinterest and significance. [1506.8]
1224. 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]
1225. Rhetoric in the Contemporary Environment. (3). Speeches and rhetoric generated by major social and political issues since World War II. Analysis of significance of rhetoric in sideration of ethics of contemporary rhetoric. [1506.1]
1226. The Rhetoric of Social Protest. (3). Speeches, pamphlets, and rhetorical techniques of selected advocates of sig. nificant 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 rhetoric of agitation, protest, and revolution as well as to role of
rhetorical discourse in social change. [1506-1]
1227. Elements of Broadcasting. (3). (3881). Structure of broadcasting and economic influence and constraints within which the industry functions. [0601-1]
1228. 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, sportscasting, news-
casting and combo-announcing. $[0603.1]$ casting and combo-announcing. [0603. i]
1229. Radio Production and Studio Operations. (3). (3825). Preparation, production and evaluation of programs, including talk, discussion, interview, music, documentary and special event shows; emphasis on construction, editing, and compilation for broadcast use. [0603-8]
1230. Television and Film Production and Aesthetics I. (4). (Same as CMUS 3823). Basic production skills and theory: audio control, recording, still photography, studio and smallformat TV production. Aesthetics of sound and moving image.
Three hours lecture-demo-critique; two hours laboratory. PRE. REQUISITE: permission of instructor. [0603.8]
1231. Television and Film Production and Aesthetics II. (4). (Same as CMUS 3824). Intermediate production skills and the. ory in film and television, including actual production exercises. tory. PREREQUISITE: COMM 3823 or permission of instructor. [0603.8]
1232. Art of Film. (3). (1851). Functions, develpment and tech niques of film as tine and popular art. Study of film language and forms as means of expressionistic, Hollywood, observa-
tional, etc. $[0605.1]$ tional, etc. [0605.1]
4101.6101. Contemporary Theories of Language. (3). Influence of language upon behavior, limitations of language as communicative system,
thought. $[1506.1]$ 4341.6341. Interpersonal and Small Group Communication. (3). Advanced theory in logical, psychological, and sociological
investigation of issues in small groups, $0601-8]$ investigation of issues in small groups. [0601-8]
4361.6361. History and Criticism of British Public Address. (3). British speakers and speaking from 16 th century to present. Emphasis on speech situation, audience, issues and speakers. Such men as Fox, Pitt, Sheridan, Burke, Disraeli, and Churchill considered. Repeatable to maximum of 6 hours with permission of instructor. [0601.1]
4362.6362. History and Criticism of American Public Address. (3). Analysis of political, religious and social speaking from colWebster, and the Roosevelts men as Clay, Emerson, Lincoln, mum of 6 hours with permission of instructor. [1506.1]
1233. Undergraduate Seminar in Communication Arts. Stresjes individual work, preparation of papers and repo
and extensive class discussion; topics vary from semester to and extensive class discussion; topics vary from s
mester. May be repeated up to 6 hours. [1506.8]
4367-6367. International Communication. (3). Role of comn nication, especially rhetorical communication, in decisi making, information, and propaganda of foreign policy issu emphasis on executive-congressional foreign policy debat diplomatic rhetoric, and info
icy crisis context. [1506.1]
4371.6371. Rhetorlcal Criticism. (3). Problems in theory : criticism of classical and modern retorical works; applicat
of principles of rhetoric to critical evaluations of current pui speaking practice. [1506.1]
4373-6373. Interracial Communication. (3). Special proble encountered in communication among races. Readings, disc
sion, and field study on how prejudice, stereotypes, and s sion, and field study on how prejudice, stereotypes, and s
concepts can affect communication; exploration of rhetor concepts can affect communication; exploration of rhetor
methods to minimize these problems. PREREQUISITE: COI methods to minimize these problems. PRE
2361 or permission of instructor. [0601.1]
4374.6374. Directed Studies in Communication Arts. (1.3). ric, radio, television, and film. PREREQUISITE: permission instructor. [0601.8]
4375-6375. Intercultural Communication. (3). Special pr lems encountered in communications between people of dif tive interaction between and among people with differ national/cultural backgrounds and functioning more effectiv in multi-cultural settings. [0601-1]
4704-6704. Theories of Communication. (3). (Same as J0, 4704). Comparison of theories offered to explain character effects of mass communication media ranging from Stimul Response Theory to Agenda Setting Theory. [0601-1]
1234. Internship. (1-3). Field studies in communication. Suf vised practical work with government institution, private bi ness, required. May be repeated for maximum of 6 semest hours. PREREQUISITE: permission of instructor. [0603-5] 4810-6810. Broadcast Regulation and Program Policy. (3). fects of FCC and other governmental regulations on broadci ing management and station operations. Topics: licensing, newals, content con
copyright. [0603-1]
4811-6811. Radio and Television Programming. (3). Analysii individual program formats (with examples); use of this in mation along with ratings and other audience research to sti design of program schedules. [0603.1]
4824-6824. Cinematography/Videography. (3). Art of visuat terpretation with strong concentration in theory and techniq, of lighting. Experience with professional film and video c
eras and light equipment. PREREQUISITES: COMM 3823 : eras and light
3824 . 0603 1]
4825-6825. Creative Editing of Film and Video Tape. (3). Te niques of editing single and double system film and video ta Overview of total post-production process, but concentrates
marily on aesthetics of continuity. PREREQUISITES: COI 3823 and 3824. [0605.1]
4831.6831. Radio and Television Sales and Advertising. (Same as CMUS 4831). Relation of radio and television ad sponsors, agencies, and allied groups. [0603.1]
4842.6842 . Television Production. (3). (SPCH 3842, COI 4842). Techniques of studio and small-format TV produc including staging and direction of programs. PREREOUISI COMM 3824. [0603.8]
4851.6851 . Development of Contemporary Film. (3). Theatr film from 1925 to present. Study and critique of selected filr [0603.1]
4852.6852. Origins of Film. (3). Origins and growth of mo picture industry through
selected films. [0603.1]
4853.6853. Documentary Form in Film. (3). History and $c$ cism of documentary, educational, and industrial films. St of non- fiction torm. [0603-1]
4854.6854. Documentary Form in Broadcasting. (3). His and critic
[0603.1]
4857-6857. History of American Broadcasting. (3). Com hensive study of history of broadcasting industry in Un
States as it developed from 1895 to present. Use of prim sources. [0603.1]
4871.6871. Radio and Television Station Management. Theories of management; special problems and situations fronting manager of broadcasting station, including person
operations, government regulations, programming, and sal operations
[0603. 8 ]
4892.6892. Film Production. (3). Qperation of 16 mm silk sound cameras, continuity principles, composition, ang REQUISITE: CQMM 3824 or permission of instructor. [0603
4922.6922. Directing the Forenslcs Program. (3). For teac charged with responsibility of developing and directing ir scholastic or intercollegiate competitive speech programs; torical background for such programs, organizing techniq
recruiting, tournament direction, and other related concer recruiting
[1506.1]
Graduate courses in Theatre and Communication Arts: The Bulletin of the Graduate School.

## THE COLLEGE OF EDUCATION

## COUNSELING AND PERSONNEL SERVICES

PROFESSOR ROBERT E. DAVIS, Chairman

Room 123, Patterson Building
e Department of Counseling and Personnel Services offers

## M730 GUIDANCE (GUID)

61. Career Development. (3). Relatıonship of interests, apti des and careers. Includes exploration of work settings and ac ities to support individual career planning. Students expected investigate work settings, relate this investigation to aca mic programs, and utilize this information in individual car development. [0826.1]
62. Introduction to Guidance. (3). Principles and concepts, ganization and administration, and implementation of guid ganization and administration, and implementation of guid
ce services in various settings. Personal growth and interper ce services in various settings. Personal growth and interper. hal relationship experiences to provide opportunities for gainskills applicab
uations. [0826.1]
63. Humanistic Interactions. (3). Human relations exercises $d$ other personal experiences related to effective learning cli tes. Includes communication skills for working in groups d one to one relationships and identification and referral of sons to appropriate resources. [0826-8]
91.6691. Practicum in Residence Hall Staff Counseling and vising. (3). Practical experience for residence hall staff. In uction and supervision provided. Individual and group activiuction and supervision provided. Individual and leadership hcerns such as drug abuse, family planning information, and dent discipline. Utilizes interdepartmental disciplines. (S $U$ ) 326-5)
64. Practicum in Leadership Development (3). Supervised periences for developing or refining leadership skills. Prac in leadership style, communication, motivation, negotia , conflict resolution, and parliamentary procedures. (S/U). 326-5]
70.79.6770.79. Workshop in Guidance. ( 1.3 each) portunity for growth for professional in field of guidance anc inseling. Application and study in field designated by spec workshop number. Student expected to develop appropriskills and attitudes. (S/U). [0826-1]
TE: Not more than 9 semester hours of Workshop credit car applied toward a degree
12-6772. Workshop in Corrections Counseling. (1-3).
13-6773. Workshop in Group Process. (1-3).
14-6774. Workshop in Community Services. (1-3)
15-6775. Workshop in Student Appraisal. (1-3).
76-6776. Workshop in Career Guidance. (1-3).
47-6777. Workshop in Pupil Personnel Services. (1-3)

## 48-6778. Workshop in Counseling. (1-3)

Workshop in College Student Personnel Service. (1-3)
31-6781. Counseling Strategies for Crisis Intervention. (3). cess of crisis intervention. Study and practice in under fding crisis induced dysfunctional behavior, recognizing cri situations, and crisis counseling procedures. Students to nonstrate competency in assisting in safely disengagıng cri sparticipants, providing follow-up and referral. [0826-8] 2-6782. Gerontological Counseling. (3). Survey of demo (phic, developmental, physiological-sensory and psycho of appropriate ing as applied to counseling. Experiences in laged; emphasis on particular crisis situations such as retire. m, leisure, relocation, housing institutionalization, dying, cth, and survivorship. [0826.1]
33. Alcohol and Drug Abuse Counseling. (3). Process of Enseling alcoholic and drug dependent persons. Study in mo cties of treatment, philosophy of treatment, and referral. [26.1]

## CURRICULUM AND INSTRUCTION

PROFESSOR JOHN A. MASLA, Chairman

Room 424, The College of Education Bullding
Department of Curriculum and Instruction offers majors a minors in elementary education, secondary education and

## M650 ELEMENTARY EDUCATION (ELED)

1. Reading Skills for University Students. (2). For students $v i$ feel need to increase their reading efficiency through applicon of prescribed, individualized study techniques. Credit for
this course may not be counted toward any degree unless prior permission has been obtained from the dean of the college which grants the degree. [0802-1]
2. Introduction to Early Childhood 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 socio economic day care centers, kindergartens, and primary grades Two lecture/two laboratory hours per week. [0802.1]
3. Communication Interaction in Early Childhood Educa tion. (3). Application of selected principles of communication to eacher-child interaction, classroom management; teachin strategies, and program development, infancy through third grade. Two lecture two laboratory hours per week. [0823-1]
4. Language Arts in the Elementary School. (3). How lan guage 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. [O802-1]
5. Teaching Methods in Elementary School Mathematics (3). Emphasis on process approach to teaching basic mathe matics concepts, including resource use. Involvement with variety of materials. Laboratory experience may be required. PRE REQUISITES: EDFD 2011; EDPS 2111, and 3121. [O833-1]
6. Teaching Methods in Elementary School Science. (3). Emphasis on process approach to teaching basic science concepts, including area of resource use. Involvement with vari ety of materials. Laboratory experience may be required
REOUISITES: EDFD 2011; EDPS 2111, 3121. [0834-1]
7. Teaching Methods in Elementary School Social Studies (3). Emphasis on methods and materials of social studies ap. propriate to each developmental level of elementary school child. Laboratory experience may be required. PREREQUI SITES: EDFD 2011; EDPS 2111, 3121. [O802-1]
8. Materials and Methods for Affective Domain in Early Childhood Education. (3). Theory and content of affective devel opment in early childhcod education, infancy through third grade: implications for designing programs, materials and eaching strategies in the creative arts. Supervised lab experi ences in varied socio-economic day care centers, nursery schools, kIndergartens, and primary grades. Two lecture hours,
two lab hours per week. PREREQUISITE: ELED 3212. [0803-1] 3803. Motor Learning and Teaching Methods in Physical Educa tion. (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]
9. Special Problems in Instruction (1.3). Individual investi gation in area of instruction. PREREQUISITE: experience as teacher or satisfactory evidence of being qualified to benefit from course. [0829 8]
4211-6211. Comparative Study in Early Childhood Education (3.6) Examination and comparison of early childhood programs in United States and other countries. Foreign and domestic ravel may be planned. PREREQUISITE: consent of instructor [0823-1]
10. Materials and Methods for Cognitive Domain in Early Childhood Education. (3). Materials and instructional tech niques appropriate for infancy through third grade; cognitive development, concept formation, instructional objectives; preparation and implementation of academic content. Supervised lab experiences in varied socio economic day care centers hursery schools, kindergarten and primary grades. Two lecture hours, two lab hours per week. PREREQUISITE: ELED 3212. [0803-1]
11. The Teaching of Developmental Reading. (3). Survey of theoretical background for developmental reading instruction Methods and materials used to teach sequential skills in pri mary and intermediate grades. Laboratory experience may be required. PREREQUISITE: ELED 3241 or classroom experience [0830-1]
12. Corrective Reading. (3). Diagnostic prescriptive ap proach to teaching reading, using both formal and informal techniques for assessing reading levels and skill needs. Labora 10830-1]
13. The Teaching of Modern Mathematics in the Elementary School (Grades 1-8). (3). Advanced course for prospective and experienced teachers concerned with mathematical processes required of elementary school child. [0838. 1]
14. Home School Relationships in Early Childhood Education. (3). Parent-Teacher-Child relationships; conferring, interview ing, reporting procedures and techniques; pupil evaluation methods; typical child characteristics. Supervised lab experi ences in varied socio-economic day care centers, nursery schools, kindergartens, and primary grades. Two lecture hours two lab hours per week. PREREQUISITES: ELED 2211, 3212 3412, 4212. [0802.1]
4751-6751. Workshop in the Reading Program. (3.6). Focus on problems of teaching reading as related to content, methods, materials, and evaluation. (S/U). [0830.1]
4761-6761. Aerospace Education in Schools. (3). Aerospace content and flight experiences. Emphasizes classroom applica tion. [0834-1]
15. Directed Student Teaching in the Kindergarten. (3.9) observation of growth and development of pupils and of meth ods of teaching; participation in school activities, culminating in assuming
*4821. 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, culminating in assuming responsibility for teaching entire groups. (S/U). [0802.5J
*4822. Directed Student Teaching In the Elementary School. (3.6). For student who has completed 6 semester hours or less of student teaching in 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)

4701.6701. Workshop in Curriculum and Instruction. (1.9). Various areas of curriculum and elements of instruction ex plored. 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. (S/U). [0801.1] 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]

## M680 EDUCATION (EDUC)

3301. Analysis of Teaching. (1-3). Interaction analysis and related nonverbal behavior techniquies to describe pupil-teacher classroom interchange; microteaching to identify and analyze teaching skills. PREREQUISITE: EDPS 3121. [0801•1]
3302. Audio-Visual Instructional Materials in Education. (3). Introduction to means for effective preparation and utilization of selected multimedia materials. Laboratory practice. Emphasis on implications of media for teaching. [0829-1]
3303. Teaching Reading Communication Skills in the Content 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]

## M670 SECONDARY EDUCATION (SCED)

*3321. Materials and Methods in Secondary Art. (3). (Same as ART 4421). [0831.1]
*3322. Materials and Methods in Secondary Music. (3). (Same as MUSE 4203). [O832-1]
*3331. Motor Learning and Teaching Methods in Physical Education. (3). (Same as PHED 3803). [0835-1]
3332. Materials and Methods in Health Education. (3). (Same as HLTH 3102). [0837.1]
*3341. Materials and Methods in Secondary English. (3). [О803.1]
3346. Materials and Methods in Secondary Speech (3). [0803.1]
-3348. Materials and Methods in Secondary Foreign Language. (3). [0803.1]
3351. Materials and Methods in Secondary Mathematics. (3). [0833.1]
©3361. Materials and Methods in Secondary Biology. (3). [0834-1]
-3362. Materials and Methods in Secondary Physical Science. (3). [0834.1]
3371. Materials and Methods in Secondary Social Studies. (3). [0803.1]
*3372. Materials 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]
*3378. 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). [0838-1]
-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 in. struction, organization of courses; and teaching procedures and practices.
3901. Special 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. [0829-8]
4306. Educational Methods for Adult Education. (3). Emphasis on trends, instructional and resource materials, and instruc. tional techniques used in adult educational programs. [0807.1] 4341. 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]
4441. 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 curric. ula, and organization and use of units of work. [0829.1]
-4841. Directed Student Teaching in the Secondary School. (39). Observation of growth and development of pupits and of methods of teaching; participation in school activities, culmimeting in assuming responsibility for teaching entire groups. (S/U). [0803-5)
-4842. Directed Student Teaching in the Secondary School. (3 to 6). For student who has completed 6 semester hours or less of student teaching on secondary level and desires additional experience. (S/U). (0803-5)
Graduate Courses in Curriculum and Instruction: For full 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 the student teac
Degree Programs.

## DISTRIBUTIVE EDUCATION

PROFESSOR C. EDWIN PEARSON, Chairman

Room 101, The College of Education Building
The Department of Distributive Education offers a major and a minor to prepare teacher-coordinators for vocational marketing minor to prepare teacher-coordinators ior vocational marketing
and distributive education programs in high schools, technical and distributive education programs
institutes and community colleges.
(Students majoring in Marketing, or with concentration in Fashion Merchandising or Home Furnishings Merchandising may secure certificate to teach Distributive Éducation through this department).

## M600 DISTRIBUTIVE EDUCATION (DTED)

1111. Orientation to Distributive Education. (1). Scope of careers in distributive education (teaching marketing, merchandising and related management); educational preparation needed, professional orientation, and field observations. ne838-ij
1112. Cooperative Occupational Education. (3). (Same as HMEC 3010 and 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. Principles and Philosophy of Vocational Education. (3). (Same as HMEC 4611 and VTED 4611). History, philosophy, principles and objectives of vocational education; curriculum problems; contribution of vocational.technical education to general education; trends in vocational-technical education. [0838-1]
1113. Visual Merchandising. (3). Theory and practice in visual merchandising (display); especially retail interior and window display techniques, display creation, planning promotions and
determining budgets. One lecture, four laboratory hours per determining budgets. One lecture, four laboratory hours per
week. [0838-1] 4630. Materials and Methods in Distributive Education. (3).
Instructional materials and techniques used in high school and post high school marketing and distributive education classes. (Fall semester only). (0838-1)
4641-6641. Techniques of Coordination of Cooperative Occupational Education. (3). (Same as VTED 4641). Selecting training agencies; developing iob analyses; selecting and briefing training supervisor; selecting and working with advisory committees; utilizing other community resources. PREREQUISITE: DTED 4630 or consent of instructor. [0838 1]
1114. 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 Organizations. (3). Aims and objectives of vocational student organizations and their value in occupational preparation; their development, curricular integration, operation and evaluation. [0838.1]
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 contained in three phases of program operation: class-
room instruction, on the-job training and youth organization ad. room instruction, on the-job training and youth organization ad-
visement. 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 advisore program. PREREQUISITE: permission of instructor. 10838.9]
${ }^{-4871.6871 \text {. Student Teaching in Distributive Education. (3-9). }}$ Observation of operation of high school marketing and distrib. utive 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 $U$ ). (0838.5) Graduate courses in Distributive Education: For details of the
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). Professional 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 quality for teacher 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. [0821-1]
2012. Special Probiems in Cultural Foundations of Education. (1-3). Individual investigation and report of specific problem (1.3). Individual investigation and report of specific problem
under direction of faculty member. PREREQUISITE: permission of instructor. [0813-8]
4012.6012. History of American Education. (3). Development and growth of educational practices, institutions, and theories in United States from colonial period to present. [082 1-1]
2013. School and Society. (3). Group behavior in educational process; sociological factors involved in interaction of pupils, process; sociological tactors involved in interaction
teachers, administrators and community. [0821-1]
2014. Sociological and Psychological Implications of Urban Education. (3). Sociology and psychology of urban education, including trends and implications for educators. [0821-1]
4042-6042. Survey of Educational Systems in LatIn America. (3). Development of selected educational systems in Central and South America; analysis of religious, economic, and political influences on educational policies and practices. [0821-1] 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 analysis 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 degree. (S/U). [0821-1]

## 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)
002 TEST CONSTRUCTION (1)
003 TEST STATISTICS (1)
004 STANDARDIZED TEST RESULTS (1). PREREQUI-
SITE: EDRS 4511-003.
4518. Special Problems in Educational Measurement. (1-3). In. dividual investigation and report of specific problem under di-
rection of faculty member. PREREQUISITE: permission of rection of faculty member. PREREQUISITE: permission of instructor. [0825-8]
4541. Fundamentals of Applied Statistical Methods. (1-3). Introduction to use of statistical techniques in education and behavioral sciences. Emphasis on practical use and interpretation of these concepts. Maximum of 3 semester hours credit may be earned. Student may enroll in complete course for three credits or in separate modules [0824-1

001 FUNDAMENTALS OF APPLIED STATISTICAL
METHODS (3) METHODS (3)
002 DESCRIPTIVE STATISTICS (1)
003 PROBABILITY AND CORRELATION (1). PREREQ-
UISITE: EDRS 4541.002.

## 004 INFERENTIAL STATISTICS (1). PREREQUISITE: EDRS 4541.003.

4542. Fundamentals of Applied Research. (3). Basic resea designs, problem of replicability, and methodology used in $\mathbf{F}$ designs, problem of replicability, and methodology used in !
posing and reporting research; emphasis on referencing posing and reporting research; emphasis
interpreting research literature. [0824.1]

## M720 EDUCATIONAL PSYCHOLOGY (EDPS)

 2111. Human Growth and Development. (3). Life-span proach to principles and processes of human growth and de opment applied to educative process. [0822-1]3121. The Psychology of LearnIng. (3). Psychology of learn as applied to activities under guidance of school. PREREC SITE: Student must have filed and not been rejected for adr sion to Teacher Education Program or
securing teacher certification. [0822-1]
3122. Special Problems in Educatlonal Psychology. (1-3). It vidual investigation and report of specific problem under dii tion of faculty member. PREREQUISITE: permission of instt tor. [0822-8]
3123. The Psychology of Adolescence. (3). Physiologi sociological, and psychological factors which act as antt dents of adolescent behavior as well as categories for obse tion of behavioral outcomes during adolescence; emphasis relationship of specific behaviors to problems encountered teachers of adolescents. Community facilities used for labi tory observation. [0822.1]
3124. Management of Classroom Behavior. (3). Study and plication of psychological principles used by educators to c with behavioral problems and to improve social and emotic behaviors of pupils. Laboratory or simulation activities al with academic study. [0822-1]
4701-6701. Workshop in Psychological Foundations of Ed tion. (1-3). Group study and analysis of selected area indice by subtitle printed in Schedule of Classes. NOTE: Not m than 9 semester hours of workshop credit can be applied ward a degree. (S/U). [0822-1]

## HEALTH, PHYSICAL EDUĆATION, AND RECREATION

## PROFESSOR MELVIN A. HUMPHREYS Chairman

Room 204, Field House
Majors and/or minors are offered in (1) health, (2) physical ucation, and ( 3 ) recreation and park administration.

## M740 HEALTH (HLTH)

1102. Personal Health. (3) Physiological basis of correct liv including fundamental biological facts; psychological aspec human behavior as they affect individual health conduct: mental hygiene; agents of disease and modern scientific $m$ ods of controlling them. [0837-1]
1103. Introduction to Community Health. (3). Health probl requiring community action. Introduction to ofticial and I official health agencies whose programs designed for pre
tion of disease and disorders and conservation and prome tion of disease and disorders and conservation and prome
of health. Activities in areas of environmental health, sanital of health. Activities in areas of environmental health, sanital
epidemiology, health education, and related areas. $[0837.1$,
1104. Foundations of Health Science. (3). Historical and $p$ sophical study of growth and development of health scie [0837.1]
1105. Materials and Methods in Health Education. (3). (S as SCED 3332). Methods, materials, and resources for he teaching; emphasis on improving
sound health teaching. [0837.1]
1106. The School Health Program. (3). Organization of health program including health services, healthful school $t$ ronment and health instruction. Emphasis on methods $\alpha$ ganizing and implementing health services in schools; scr
ing tests, detection of defects and follow-up; and promotic ing tests, detection of defects and follow-up;
health through school environment. [0837.1j
1107. Elementary School Health Education. (3). School he program involving health services, healthful school living. health instruction. Content and materials suitable for eler tary school health course stressed. [0837.1]
1108. Critical Issues in Health. (3). Critical and controversii sues of heath explored. [0837.1]
4202-20-6202-20. Workshop in Health. (1-6) Selected ph of health and health education through group study. Ind study in areas of interest to persons in health education an! lated fields. (S/U). [0837.1]
4202-6202 Workshop in School and Community Health. (1
4203-6203. Workshop In Death and DyIng. (1-3).
4204-6204. Workshop In Sexuality Educatlon. (1-3).
4205-6205. Workshop in Drug Education. (1-3).
4206-6206. Workshop in Environmental Health. (1-3).
4302.6302. Observation In Community Health Agencies. Introduction to purposes, objectives, functions and prograr community health and welfare agencies, with opportuniti visit public and private agencies and interview various n sentatives. [0837.1]
1109. Practicum in Public Health Education. (1-6). Field ex ence in public health education. Practical work under sur ence in pubic heath education. Prantical work $(\mathrm{S} / \mathrm{U})$. [0837.5]
sion of government or voluntary agencien 4502. Problems in Health Education. (1-3). Independent : or research project on selected health problems or issues. REQUISITE: consent of instructor. [0837-8]

## UCATION

02-6602. Organization and Administration in Public Health. Basic functions, principles, and procedures of organization $d$ administration as applied to health. Emphasis on relation ip and responsibilities of personnel in planning, promoting, ip and responsibilities of personnel in planning, promoting, itered health services. [0837-1]
02-6702. Trends and Problems in Public Health. (3). Histori development and current trends in community health; vari$s$ needs and demands for medical care; contribution of pro sional personnel in providing for total health services and
ucation. (0837-1) Col (0837.1)
02. Selected Topics in Health. (1-3). Current topics in health. y be repeated with change in topic a
of Classes for exact titles. [0837.1]

## M745 SAFETY EDUCATION (SAFE)

2. First Aid and Emergency Care. (3). (HLTH 2102). Safety ils and techniques of immediate and temporary care in event injury pr sudden illness. Successful completion qualifies stu-

3. Safety Education. (3). (HLTH 2202). Causes of accidents d action designed for prevention of accidents in home, oool, and community. Content and materials for safety edu ion in school instructional program [0836.1]
4. Water Safety Instructor. (3). (PHED 2703). Analysis, ictice, and teaching of swimming and life saving skills and 3eral
5. Cardiopulmonary Resuscitation and Emergency Life Supt. (3). Basic life suppont technıques of Cardiopulmonary Re citation and other emergency life support situations. Suc sful completion qualifies student for certification in basic life port course Cardiopulmonary Resuscitation (CPR) and sic First Aid by American Red Cross. [0836-1]
6. Instructor's Course in First Aid. (3). (HLTH 3402). Adiced consideration of first aid subject matter; orientation in thods, techniques, and teaching devices in first aid courses practical classroom experiences. Successful completion of sic Life Support Cardiopulmonary Resuscitation (CPR) In uctor's Certificates. PREREOUISITE: SAFE 2102 or ARC adced certificate. [0836-1]
7. Prevention and Care of Athletic Injuries. (3). (HLTH 02). Practical and theoretıcal aspects of treatment of athletic ries in athletic training program; supplies, training table rapeutic equipment, and techniques in conditioning and
ddaging. [0837.1] 7-6207. Worksh
77-6207. Workshop in Driver and Traffic Safety Education. 3). For in-service and prospective teachers of grades 7-12. provement of teaching-learning process as applied to driver 4 traffic safety education. Attention to common elements of ching methodology, utilization of appropriate driver and trafsafety education materials and resources and evaluative eria. (S/U). [0836.1]
35-6335. Driver and Traffic Safety Education I. (3). (SCED 35). Basic knowledge and skills to dea! with problems of veLlar traffic. Defensive driving and driver improvement techlues stressed. Students desiring teacher certification must oll concurrently in SAFE 4336 for one semester
to complete laboratory requirements. [0836-1]
36-6336. Driver and Traffic Safety Education - Lab I. (1) boratory experiences dealing with classroom and in-car in uction. Required for all students desiring certification in er education. To be taken concurrently with SAFE 4335 . hours each week TBA. [0836-1]
37.6337. Driver and Traffic Safety Education II. (3). (SCED 36). Advanced driver and traffic safety educational activities. udes study of current research in accident causation and ivention. Students desiring teacher certification must enroll mplete laboratory requirements. [0836.1]
98-6338. Driver and Traffic Safety Education - Lab II. (1). oratory experiences dealing with classroom, in car multticle range and simulation instruction. To be taken concur
8. Selected Topics in Safety Education. (1-3). Current topi in safety education. May be repeated with change in topic a content. See Schedule of Classes for specific title. [0836.1]

## M750 PHYSICAL EDUCATION (PHED)

3. Orientation for Physical Education Majors and Minors. ( Seminars in programs, career opportunities, professional sieties, and related literature. [0835-1]
11-1941. Selected Physical Activities. (2). [0835. 1]
equired Physical Education courses are to be selected from tfollowing courses.
OTE 1: The prerequisite for each advanced activity course the introductory course or its equivalent
OTE 2: Any student except those with a major or minor in hysical Education has the option of taking these activity ourses for a letter grade or on a credit/no credit basis.
4. 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 maximum of
1301. Weightlifting (men)

001 MACHINES
002 FREE WEIGHTS AND CONDITIONING
003 POWER WEIGHTLIFTING
1331. Camping
332. Advanced Camping

Advanced Camping
001 ROCK CLIMBING

002 MOUNTAINEERING
003 CAVING
1361. Equitation

001 WESTERN STYLE
1412. Judo

001 SELF DEFENSE TECHNIQUES
1413. Advanced Judo
1431. Wrestling

001 PHED MA JORS
1441. Karate
1442. Advanced Karate
1451. Boxing Skills
1461. Fencing

001 KENDO
1501. Tennis
1502. Advanced Tennis

001 PHED MAJORS
1521. Racquetball
1522. Advanced Racquetball
1531. Handball
1532. Advanced Handball
1541. Badminton
1542. Advanced Badminton
1551. Archery
1551. Archery
1561. Bowling
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
1622. Advanced Gymnastics

001 MEN'S EVENTS
002 WOMEN'S EVENTS
1651. Riflery

001 HOME FIREARM SAFETY AND MARKSMANSHIP
1711. Beginning Swimming
1712. Elementary Swimming
1713. Intermediate Swimming

001 PHED MA JORS
*1721. Survival Swimming
1722. Swimming - Lifesaving

- 1731. Synchronized Swimming
- 1741. Advanced Swimming

001 CONDITIONING THROUGH SWIMMING
1751. Water Polo
1761. Springboard Diving
1762. Advanced Springboard Diving
1771. Scuba
1772. Advanced Scuba

001 KAYAKING
002 RAFTING
003 SMALL BOAT CRAFTING
004 SAILING
005 CANOEING
1811. Rhythms for Elementary School
$\dagger 1812$. Square and Round Dance I
1813. Foik and Social Dance I

001 PHED MAJORS
1814. Folk and Social Dance II
1821. Modern Dance I
1822. Modern Dance II
1823. Adagio
$\dagger$ 1825. Ballet I
1827. Jazz Dance
1831. Tap Dance I
$\dagger 1832$. Tap Dance II
1921. Basketball
001 PHED MA JORS
1922. Volleybali - Basketball
1923. Volleyball

001 PHED MAJORS
1931. Soccer and Fieldsports
1941. Track and Field Events

001 PHED MAJORS
"The
1713.
$\dagger$ The descriptions for these courses follow immediately below.
1812. Square and Round Dance I. (2). Introduction to American square, round and contra dance. [0835.1]
1813. Folk and Social Dance I. (2). Introduction to international folk dance and American ballioom and social dance. [0835-1]
1814. Folk and Social Dance II. (2). Expansion on repertoire of international folk dances and American ballroom and social dances of increased difficulty and challenge. [0835.1]
1821. Modern Dance I. (2). Introduction to modern dance techniques; emphasis on exploration of fundamentals of dance. For student with littie 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 level. PREREOUISITE: PHED 1821 or its equivalent. [0835-1]
1825. Ballet I. (2). Introduction to classical ballet technique; emphasis on barre and center floor work for student with little
1826. Ballet II. (2). Continuation of classical ballet techniques; emphasis on intermediate level adagıo and allegro combina tions. PREREOUISITE: PHED 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. PREREOUISITE: PHED 1831 or equiv. alent. [0835.1]
2003. Analysis of Movement. (3). Understanding how and where body moves and what body can do. Opportunities 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 Techniques of Basketball. (2). Coaching techniques, training and conditioning methods appropriate to basketball. [0835-1]
2303. Fundamentals and Techniques of Track and Field. (2). Coaching techniques, training and conditioning methods appropriate to track and field. [0835-1]
2403. Fundamentals and Techniques of Baseball and Softball. (2). Coaching techniques, training and conditioning methods appropriate to baseball and softball. [0835.1]
2503. Coaching Methods in Swimming. (2). Coaching techniques, training and conditioning methods appropriate to swimming. [0835.1]
2603. Sports Offlciating. (3). Study of rules, interpretations, and mechanics of officiating in selected sports. [0835-1]
2803. Methods and Materials of Gymnastics. (2). Materials, methods, and teaching techniques utilized in instruction of gymnastics. PREREQUISITE: PHED 1621. [0835 1]
2903. History and Principles of Physical Education. (2). Origins and nature of modern physical education as developmental experience and medium of education. Scientific and philosophical principles of physical education. [0835-1]
3103. Materials and Methods in Team Sports for Women. (3). Materials, methods, teaching, and coaching techniques of team Sports. Laboratory experiences required. PREREOUISITES:
PHED 1921 and 1923. [0835-1]
3203. Materials and Methods in Individual Sports. (3). Materials, methods, and teaching techniques of life tıme sports. Laboratory experience required. [0835-1]
3303. Adapted Physical Education. (2). 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 terms of the muscular forces operating on bones. PREREOUISITES: BIOL 1631 and 1632. [0835-1]
3503. Materials and Methods of Dance. (3). Basic theory, participation, techniques, materials, and teaching methods in rhythmic activities from grades 7 through 12. Laboratory expe riences required. PREREOUISITE: PHED 1813. [0835.1]
3703. Physiology of Exercise. (3). Scientific basis of physiological principles on various systems and organs of the body during muscular activity. Emphasis in principles of motor pertormance
and training. PREREOUISITES: BIOL 1631 and 1632 . [0835-1]
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 Middle 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 REQUISITES: PHED 2003, 1621. [0835-1]
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 curricREQUISITES: PHED 2003, 1813. [0835-1]
3836. Games and Sport Activlties for the Elementary and Middie 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.
386. Planing the Elementary and Middle School Pro
3846. Puanning the Elementary and Middle School Programs. selection of content, program development and purchase and care of supplies and facilities. Observation and laboratory experiences included. PREREOUISITES. PHED 2003, 3816, 3826, 3836. [0835-1]

4103-20. Workshops in Physical Education. (1-6). Selected phases of physical education through group study. Indepth study in area of interest and need for physical education teachers and administrators. ( $\mathrm{S} / \mathrm{U}$ ). [0835-1]
4103-6103. Workshop in Program Planning. (1-3). [0835.1]
4204. Tests and Measurements in Physical 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 Education. (3). Administrative problems of physical education, including curriculum, facilities, buying and carıng for equipment, general class organization, and organization of intramural program. [0835.1]
4903. Selected Topics In Physlcal Education. (1-3). Current topics in physical education. May be repeated with change in topic and content. See Schedule of Classes for specific titles. [0835.1]

## M760 RECREATION (RECR)

2105. In1roduction to Recreation and Parks. (4). History and development of recreation and park movements; nature of rec reation experience and its importance to the individual and in fluence of leisure on society. Private, public, voluntary, military, and commercial delivery systems for recreation and park ser vices. [2103.1]
2106. Youth Service Organization. (2). Introduction to agencies servicing leisure tıme 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 Counsellng. (2). Orientation to camping as prac ticed in America today; problems faced by camp counselor and background to aid counselor in performance of duties. [2103-1] 3105. Philosophy and Principles of Recreation. (2). Work le sure, play, and recreation; attention to sound principles of rec reation. [2103.1]
2108. Park and Recreation Facilitles. (2). Study of plannıng, development, and maintenance of parks and recreation facili. ties. Includes inspection, comprehensive recreation surveys and planning a layout. [2103.1]
2109. Program Planning in Recreation. (4). Program fields in relation to programming principles, planning objectives, structural organization, purposes and values of types uf activities,
programs for special groups, and program evaluation. [2103.1] 3405. Resource Management in Recreation. (4). Management, operation and maintenance of areas and facilities within field of recreation and parks. Includes identification, acquisition, allo cation, development and management of land and water recation, development
sources. [2103.1]
2110. Camp Administration. (2). Qrganızation and administration of camps and camping programs; emphasis on program planning, selection and training of staff. [2103.1]
2111. Ou1door Recreation. (2). Organization and administration of programs and activities in large park areas and forests. Qutings, campfire programs, picnics, hiking, outdoor cookery, trailing, climbing, class and field activity. [2103.1]
2112. Outdoor Education. (2). Philosophy, modern trends, administration, program content, and methods of leadership in outdoor education activities. Opportunities for field trips and practice in leadership skilis. [2103.1]
2113. Leadership Seminar in Recreation. (3). Dynamics of leadership; theories, principles, and practices of leadership; re search in leadership, issues and problems of working with indi viduals and groups. [2103-1]
2114. Recreational Leadership. (3). Development of skills and techniques necessary for successful leadership in recreation and park programs. [2103.1]
4205.6205. Supervised Clinical Training in Recreatlonal Therapy. (6). Principles and methods of therapeutic recreation in clinical setting. PREREQUISITE: consent of instructor. [2103-1) 4305. Field Problems in Recreation. (1-6). Selected problems in areas of recreation and parks through individual and group field experience. PREREQUISITE: permission of instructor. [2103-5]
4405-6405. Organization and Administration of Recreation. (3). Community organization, its philosophy, foundation and principles. Selected administrative practices that relate to suc4505. Recreation Surveys. (3). Program observation, analysis, need assessment and evaluation. [2103.1]
2115. Internship in Recreation and Parks. (3-9). Professional field experience including situations in which student has opportunity to relate theory to practical experience. PREREQUI2103.5]

4705-6705. Workshop in Recreation and Parks. (1-6). Selected phases of recreation, parks or leisure studies. In-depth study of areas of interest and need for persons in recreation and parks
or related fields. (S/U). 2103 . 1$]$ or related fields. (S $/ \mathrm{U}$ ). [2103.1]
4905. Selected Topics In Recreation, Parks, and Leisure Stud-
les. (1.3). Current topics in recreation, parks, and lessure stud. les. (1.3). Current topics in recreation, parks, and leısure stud
ies. May be repeated with change in topic and content. See ies. May be repeated with change in topic and content. See
Schedule of Classes for specific title. [2103.1]

## HOME ECONOMICS

PROFESSOR MARQUITA IRLAND, Chairman
Room 404, Manning Hall
A co-operative relationship exists between Memphis State University and the Merrill-Palmer Institute of Detroit, Michigan, whereby a second-semester junior or first•semester senior ma-
joring in Home Economics.Child Development may enroll for joring in Home Economics.Child Development may enroll for one semester study at Merrill-Palmer with the semester hours
earned being transferred toward graduation at Memphis State.

A co-operative relationship also exists with the Fashoon 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 Profession. (1). Scope of Home Economics, educational preparation, protessional orientation and research pertinent to the field. (S/U). PREREQUISITE: Home economics major. [1301.1]
1101. Cooperative Occupational Education. (3). (Same as DTED
3010 and VTED 3010 ). How work experience coordinated with related in-school instruction is used to provide career preparation and marketing, office, industry, home economics, health and other fields of employment. [1301-1]
1102. 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. PREREQUISITE:
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]
1103. Readings in Home Economics. (1-3). For senior home economics majors; in-depth reading or research in area of specialization. PREREQUISITE: senior home economics majors only. [1301.8]
1104. Principles and Philosophy of Vocational Education. (3).
(Same as DTED 4611 and VTED 4611). History, philosophy, (Same as DTED 4611 and VTED 4611). History, philosophy,
principles and objectives of vocational education; curriculum problems : coctives of vocational education; curriti. bution of vocational technical education to general education; trends in vocational-technical education. [0839.1]
4900-6900. Home Economics Study Tour. (1-3). On-the-scene knowledge about specific academic areas of specialization within home economics. PREREQUISITE: permission of instructor. May be repeated with 3 hours maximum credit. [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]
1102. Infant and Child Development. (3). Affective, cognitive, 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 child development principles to program planning; infancy through four years of age. [0823-1]
1103. Preparation For Marriage. (3). Courtship, marriage, and achievement of satisfaction in tamily life. PREREQUISITE: HMEC 1101. [1305. 7
1104. Nursery School Practicum. (3). Participation in and di-
rection of various nursery school activities. One conference, rection of various nursery school activities. One conference,
five laboratory hours per week. PREREQUISITE: HMEC 2101. (S/U). [0823-5]
1105. Nursery School Practicum. (3). For student who has had or is taking HMEC 4301 and desires additional experience. ( $S$ / $\mathrm{U})$ ( 0823.5 )

## FOODS, NUTRITION AND INSTITUTIONAL MANAGEMENT (HMEC)

2102. Food Selection and Preparation. (3). Principles underlying selection and preparation of foods with introduction to planning and serving of meals. Open to freshmen. One lecture, four laboratory hours per week. [1306. 1]
2103. Elementary Nutrition. (3). Nutritive value of food, factors influencing body food requirement and health. Open to freshmen. [1306. 1]
2104. Meal Preparation and Table Service. (3). Nutrition funda. mentals in indıvidual and family dietaries, meal planning, marketing and table service for various occasions. One lecture, four
laboratory hours per week. PREREQUISITE: HMEC 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 laboratory hours
3602 . [1306.1]
2107. Food Production (Practicum). (3). Personnel management, cost control, and quality control in specific organizations. Experience in approved food services. One lecture, four labora(S/U). [1306.5]
2108. Advanced Food Production (Practicum). (3). Special problems in quantity food production, organization, and management for institutional food service. One lecture, four labora-
tory hours per week. PREREQUISITE: HMEC 3802 (S/U). [1306.5]
2109. Diet Therapy. (3). Dietary problems applicable to prevention and treatment of disease in which therapeutic diets of
major importance. PREREQUISITES: BIOL 1631 . HMEC 2202, 4402; or permission of instructor. [1306. 1]
2110. Advanced Nutrition. (3). In depth study of nutrients and body utilization and discussion of current issues in nutrition. 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 proble and practices of various ethnic, age and socio-econo groups. Community and agencies concerned with mee
these needs. PREREQUISITE: HMEC 2202 or permission of structor. [1306.1]
4702-6702. Practicum In Communlty Nutrition. (3). Obsei tion and participation in nutrition education programs of is and state agencies. PR

## of instructor. [1306-5]

4802. Experimental Foods. (3). Principles underlying exp mental approach to study of chemistry, composition, structi and properties of foods with demonstration of effects of vari ingredients in commonly prepared
HMEC 2102, CHEM $1111 .[1306-1]$

## HOME MANAGEMENT (HMEC)

4103. Family Economics (3). Management of family resour as they relate to satisfying home and family life. Includes pi lems in consumer goods and services. [1305-1]
4104. Home Management Laboratory. (3). Practical applica: of theories of decision-making and group dynamics involve management of
4103 . [1304-1]
HOUSING, HOME FURNISHINGS, AND RELATED A (HMEC)
4105. Art in Everyday Life. (3). Elements of art and princil of design as they relate to practical aesthetics of liv [1301-1]
4106. Technical Skills for Home Furnishings. (3). Students
terested in housing, home furnishing and related areas fo on varied program, of technical skills involving quick.ske problems, freehand floor-plans, and collages. For home t nomics majors who lack skills necessary to demonstrate cepts of depicting home furnishing interiors. [1302.1]
4107. Purchase and Use of Home Furnishings. (3). Principle design and color theory applied to selection and arranger of house and its furnishings. Two lecture, two lab
per week. PREREQUISITE: HMEC 1104. [1302-1]
4108. Housing and Equipment. (3). (4203). Housing as it lates to conditions of family living. Principles underlying
struction, use, and care of household equipment. (1305-1] struction, use, and care of household equipment. [1305-1]
4109. Socio-Economic Aspects of Housing/Government
Housing. (3). Analysis of family housing needs and present Housing. (3). Analysis of family housing needs and present
cial and economic conditions affecting housing, building it cia and economic conditions affecting housing, building
cesses, furnishings, and role of government in housing. $P$ cesses, furnishings, and role of go
REQUISITE: HMEC 1104. [1399.1]
4110. Furnishings Problems and Presentations. (3). Proble in planning, coordinating, and purchasing of home furnishir
One lecture, three laboratory hours per week. PREREQUIS One lecture, three laboratory hours per week. PREREQUIS HMEC 4304. [1302.1]
4111. Trends in Residential Furnishings. (3). (3104). M trends and influences on contemporary residential furnishi as these affect home furnishings merchandising. PREREC SITE: HMEC 3004. [1302-1]
4112. Principles of Home Furnishings Marketing.* (3). Patte of production and distribution in home furnishings indus market area and in merchandising techniques. Student may enroll in more than total of 12 semester hours during Pro
sional Semester. PREREQUISITE: MKTG 3320 . "CORE sional Semester. PREREQUISITE:
SITE: HMEC 3700,4804 . [1304-1]
4113. Home Furnishings Merchandising Practicum. * (6). E weeks of full time work experience in Home Furnishings A chandising in approved business establishments. Students I not enroll for more than total of 12 semester hours during
fessional semester. PREREQUISITE: MKTG 3320 . "CORE SITE: HMEC 3700, 4604. (S/U). [1302-5]

## TEXTILES AND CLOTHING (HMEC)

1105. Clothing Selection and Construction. (3). Standard: selecting and purchasing; construction of cotton garment meet individual needs. One lecture, four laboratory hours week. [1303.1]
1106. Introduction to Fashion Merchandlsing. (3). Introduc to the types of enterprises, activities, operations, interrelat
ships, and practices in fashion industry. Emphasis on merct ships, and practices in fashion industry. Emph
dising terminology and techniques. [1303-1]
1107. Clothing Construction. (3). Fundamental principles clothing construction, fitting and handling wool, silk, and : thetic fabrics. One lecture, four labor
PREREQUISITE: HMEC 1105 . [1303.1]
1108. Consumer Problems in Clothing. (3). Clothing selec and buying for men and women; emphasis on individual ne and economic problems involved. [1303.1]
1109. Fashlon and Home Furnishings Merchandising Semin (3). Concentrated study of factors influencing fashion home furnishings merchandising; guidelines tor protessii semester taken by all merchandising majors. COREQUIS concentration - HMEC 4604, 4804. PREREQUISITE: All mi subject matter courses must be completed before the pro sional semester. [1303.1]
1110. Fashion Merchandising. (3). Fashion buying functio retail store involving contemporary trends and innovation
fashion merchandising. COREQUISITES: HMEC $3700,47 i$ tashion m
[1303.1]
4305-6305. Trade Construction of Clothing. (3). Clothing i struction based upon industrial trade methods and techniq in logical sequence, in
HMEC $2205 .[1303.1]$
1111. Internship In Clothing Services. (6). For teachers in a of Occupational Clothing Services. Main concern is utili. knowledge and skills in clothing area in industrial setting. F must be completed previous to internship. [1303-5]
4405.6405. Textiles. (3). (3305). Selection, use and car textiles related to properties of fibers, yarn structures, ta
construction, and finishes. Morphology and chemistry of fik
ishes, dyes, fabric maintenance and procedure involved in fir, yarn, and fabric identification. [1303.1]
05-6505. Tailoring. (3). Selection and construction of taied wool garments, using various tailoring techniques. PREQUISITE: HMEC 1105 and 2205. [1303.1]
1112. Fashion Marketing Practicum. * (6). Eight (8) weeks of
l.time work experience in Fashion Merchandising in ap l.time work experience in Fashion Merchandising in ap-
oved business establishments. Students may not enroll for re than total of 12 semester hours during professional se ster. *COREOUISITES: HMEC 3700, 3705. (S/U). /1303.5

## LIBRARY SCIENCE

PROFESSOR EVELYN GEER CLEMENT, Chairman

## Room 101, John Willard Brister Library

## M780 LIBRARY SERVICE (LIBS)

11-6111. Library Materials for Children. (3). Evaluation and lection of books and related library materials for leisure interis and curriculum needs of children through elementary hool; extensive reading, introduction to selection criteria, oliographic aids, authors and illustrators, and types of litera-
21-6121. Library Materials for Young People and Adults. (3).
aluation and selection of books and related library materials aluation and selection of books and related library materials leisure interests and curriculum needs of young people and ults from junior high school up; extensive reading, introduc. $n$ to selection criteria, bibliographic aids, authors and illus
tors, and types of literature and information books. [1601.1] 31-6131. Introduction to Bibliography. (3). Theory and purse of bibliography as form of access to information, phasis on general reference sources; introduction to princi
32-6232. Cataloging and Classification. (3). Introduction to 32-6232. Cataloging and Classification. (3). Introduction to pks and other library materials. [1601-1]
31-6331. School Library Administration. (3). Organization administration of elementary and secondary school librarincluding standards, evaluation, facilities, equipment, sup. $t$, student assistants, and relationship to instructional and dance programs of school. [1601-1]
1-6401. Foundations of Librarianship. (3). Introduction to li rianship as a profession and library as institution in cultural 4 political setting. Influence of social issues, societal needs, ics, organization, programs, and problems of libraries and lirians. [1601-1]
duate courses in Library Service: For details of the graduate gram, see The Bulletin of The Graduate School.

## SPECIAL EDUCATION AND REHABILITATION

ROFESSOR JOHN W. SCHIFANI, Chairman
Room 112, The Special Education Building
Department of Special Education and Rehabilitation offers ajor and minor in Special Education and a major in Rehabilion Education

## M790 SPECIAL EDUCATION (SPER)

2). Introduction to Exceptional Children. (3). Overview of il of special education, including historical perspective of the i. characteristics and education of children and youth in area of exceptionality. [0808.1]
004. INTRODUCTION TO EXCEPTIONAL CHILDREN (HONORS). Overview of field of special education which includes regular on-site interaction with excep whional learners and self initiated special study as supplement to basic course material.
3002. Independent Study in Special Education. (1.6). Opportu nity for self.directed study and/or research under supervision PREREQUISITE: consent of department. [0808.8]
3003. Observation and Participation in Special 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 eval uation. (\$/U). COREQUISITE: one semester hour in SPER 3201 or 3401 or 3501 . [0808.1]
3004. Selected Topics in Special Education and Rehabilitation. (1-3). Investigation in selected area(s) of special education and rehabilitation. May be repeated with change of topic. [0819.1]
3012. Methods, Materials and Curriculum of the Exceptional Learner I. (1-3). Curriculum, methods and instructional materials applicable to special educational needs of mentally re tarded, learning disabled, and emotionally disturbed at pri mary, intermediate, and secondary levels. Emphasis on applied programming techniques and implementation of remediation procedures. PREREOUISITE: SPER 2000. COREOUISITES: SPER 3013 and 3014. [0808:1]
3013. Practical Application of Special Education Methods and Materials I. (1-3). Planning and implementation of special edu cation methods and materials with exceptional children. PRE REQUISITE: SPER 2000; CQREOUISITES: SPER 3012 and
3014 . 0808 -5]
3014. Assessment of Exceptional Persons. (3). Tests and mea surements used with exceptional persons, including psychological, social and other assessment instruments used in educa tional and vocational evaluation of exceptional persons. PRE REOUISITE: SPER 2000; CQREQUISITES: SPER 3012 and 3013. [0808-1]
3201. Introduction to the Education of Children with Emotional Problems. (1 or 3). Historical developments and current practices in identification and treatment of children with emotional problems. Emphasis on educational phase of treatment, includ ing characteristics of children, role of teacher, and curricula planning. PREREQUISITE: SPER 2000; CQREOUUISITE: SPER 3003 (1 semester hour). (0816-1)
3401. Introduction to Children with Learning Disabilities. (1 or 3). Historical developments and current practices in identifica tion and treatment of children with learning disabilities. Empha. sis on diagnosis, management, and education of children with learning disabilities; and relationship of the se concepts to aca demic failure. PREREOUISITE: SPER 2000. COREQUISITE: SPER 3003 (1 semester hour). [0818.1]
3501. Nature of Mental Retardation. (1 or 3). Historical developments and current practices in identification and treatment of mentally retarded children. Multiplicity of implications of mental retardation as they relate to impairment in growth, maturation, and learning; and impact of these deficits on individual, on his family, and on society. PREREOUISITE: SPER 2000; COREQUISITE: SPER 3003 ( 1 semester hour). [0810.1)
3516. Programming for Trainable Mentally Retarded Children. (3). Diagnosis, classification, development of teaching materi als and techniques, and interaction with trainable mentally re tarded learners. PREREOUISITE: SPER 2000. [0810.1]
3901. Introduction to Disabling Conditions and Their Helping Professions. (3). Physical, mental and socially disabling conditions and their effect on lives of handicapped and their families. Roles of various helping professions in rehabilitation of such conditions. [1222.1]
3911. 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, techniques and pro-
cedures, innovative methodologies and future trends. [1222-1]
3912. Introduction 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]
4002. Trends and Issues in Speclal Education. (3). Current trends and issues such as mainstreaming, law and the handicapped citizen, working with parents of handicapped and knowledge of available services for handicapped and their fami-
lies. lies. [0808-1]
4012. Methods, Materials 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 second
ary levels. PREREOUISITES: SPER 3012, 3013, 3014. COREQ UISITE: SPER 4013. [0808.1]
4013. Practical Applicaton of Special Education Methods and Materials II. (3). Opportunity for planning and implementation of educational methods and materials with exceptional lear ners. PREREOUISITE: consent of instructor. COREOUISITE:
SPER 4012. [0808.5]
*4541. Student Teaching in Special Education. (3.9). Orienta. tion, observation, and teaching with handicapped children (S U ). [0808.5]
4801. Workshop in Special Education and Rehabilitation. (1-9). For the professional in fields of special education and rehabili tation. 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 re-
peated when topic varies. ( $S / U$ ). 00808.1$]$ peated when topic varies. ( $\mathrm{S} / \mathrm{U}$ ). [0808.1]
4902. Social and Psychological Adjustments to Disabling Conditions. (3). Social and psychological ramifications of disabling conditions. Theories dealing with adjustment to physical disabilites explored and extrapolated to mental and social disabilities. [1222.1]
4903. Helping and Human Relationships with Disabled Persons. (3). Focus on examining theories of human behavior and helping process as it relates to working with disabled persons. The ories of Combs, Carkhuff and others. [1222.1]
4904. Instructional Methods in Rehabilitation. (3). Theoretical background and practical application in vocational evaluation, vocational exploration, and teaching job skills. [1222.1]
4905. Utilizing Client Information in Rehabilitation. (3). Use of biographical, psychological, medical and job information for case planning. [1222-1]
4913. Diagnostic Vocational Evaluation for the Disabled 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. PREREOUI. consent of instructor. [1222.1]
4914. Prognostic Vocational Evaluation for the Disabled/ Handicapped Citizen. (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 try.
outs. PREREOUISITE: SPER 4913 or consent of instructor. outs. PREREOUISITE: SPER 4913 or consent of instructor
$[1222.1]$ [1222.1]
4915. Prescriptive Vocational Evaluation for the Disabled/ Handicapped Citizen. (3). Techniques of synthesizing information gained in SPER 4913, 4914. Interpretation of data through procedures. PREREQUISITE: SPER 4913 and SPER 4914 or consent of instructor. [1222 1]
4916. Work Sample Development for the Disabled Handicapped Citizen. (3). Development, standardization and va lidation of work samples. Techniques of job analysis and community surveys and completion of a work sample based on local labor market survey. PREREOUISITE: consent of instructor. [1222.1]
4941. Practicum in Rehabilitation. (3.6). Practical experiences in various rehabilitation settings. ( $S, U$ ). PREREOUISITE: SPER 3901 or consent of instructor. [1222-5]
Graduate Courses in Special Education: see The Bulletin of The Graduate School.
*See information pertaining to the requirements for admission to the student teaching program in section 7, Colleges and Degree Programs.

## THE HERFF COLLEGE OF ENGINEERING

Q840 ENGINEERING CORE COURSES (ENGR)

- Introduction to Engineering. (1). History and nature of meering as profession, including industrial practices, acac programs, and career planning. Use of logic as applied ongineering problems and systems. One lecture hour per cic [0901-1]
Engineering Computer Programming. (2). Introduction to digital computer in engineering systems; applications of puter systems to analysis and design; introduction to comof programming languages. One lecfure, three laboratory per week. (0901.1)
. Engineering Graphics (2). Role of graphıcal communican engineering practice; sketching and drafting techniques th laboratory hours per week. [0901-1]


## CIVIL ENGINEERING

RROFESSOR 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. COREOUISITE: PHYS 2511. [0908.1]
2132. Computer Methods in Civil Engineering. (3). Civil engineering applications of fundamental methods of numerical analysis; advanced programming techniques. Three lecture hours per week. PREREOUISITES: ENGR 1011; MATH 3391. [0701.3]
2133. Field Measurements. (3). Principles of field measure ments; earthwork calculations; alignment of curves; error anal ysis. Two lecture, three laboratory hours per week. PREREOUI. SITE: ENGR 1011; MATH 2321. [0901.1]
2134. Structural Analysis I. (3). Statically determinate structural systems; analytical and numerical solutions; influence lines, moving loads. Three lecture hours per week. PRE REQUISITE: CIVL 2131. [0908 3]
2135. Structural Analysis II. (3). Analytical and numerical solutions for statically indeterminate structures. Three lecture hours per week. PREREOUISITES: CIVL 3121, MECH 3322.
2136. 3 .
2137. Design of Steel Structures. (3). Current design concepts for structural steel members and their connections Three lec. ture hours der week. PREREQUISITES: CIVL 3121, MECH

## 3322. 10908:31

3135. Properties of Concrete. (3). Study of aggregates, aggre gate benefaction, properties of portland cement, mix design testing of plain concrete, quality control of concrete and statist। cal methods for evaluating concrete test data. Two lecture, three laboratory hours per week. PREREOUISITE: MECH 3322. [0908.1]
3136. Bituminous Materials Engineering. (3). Source, manufac ture, processing, types, constituents, tests, chemical behavior, specifications and uses of bituminous materials and aggre gates in pavement mix design and construction. Two lecture,
three laboratory hours per week. PREREOUISITE: MECH 3322 . three laboratory hours per week. PREREOUISITE: MECH 3322. [0908.1]
3137. 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. PREREOUISITE: 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. PREREOUISITE: CIVL 3131. [0908.1]
3138. Reinforced Concrete Design. (3). Strength analysis and design of reinforced concrete members; floor systems; current
code provisions. Three lecture hours per week. PREREQUISITE: CIVL 3122. [0908.1]
4136.6136. Intermedlate Reinforced Concrete Design. (3). De sign of two way slab systems; column design including length effects; integrated building design using current code provi-
sIons. Three lecture hours per week. PREREQUISITE: CIVL sIons. Three lecture hours per week. PREREQUISITE: CIVL 4135. [0908. 1 ]
3139. 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
management. Three lecture hours per week. PREBEOUISITE: management. Three
MECH 3331.
[0908.1]
4143.6143. Environmental Engineering I. (3). (4146). Basic physical chemical treatment concepts for water and wastewater with laboratory demonstration of laboratory studies. Two lec fure three laboratory hours per week. PREREQUISITE: senior standing or consent of instructor. [0922 1]
3140. Environmental EngIneering II. (3). (4147). Basic biological treatment concepts for wastewater with laboratory demonstration of unit operations as well as derivation of design data
through laboratory studies. Two lecture three laboratory hours through laboratory studies. Two lecture three laboratory hours
per week. PREREQUISITE: senior standing or consent of instructor. [0922.1]
3141. Hrdraulics and Hydrology. (3). (4142). Quantification of precipitation and runotf, flood routing, open channel flow, culvert and sewer design, pipe network distribution systems, pumps and groundwater hydrology. Three lecture hours per week PREREQUISITE: MECH 3331. [0922.3]
3142. Soil Mechanics. (4). Physico chemical basis of soil struc. ture; identification and classification; permeability, compressibility, and shear strength. Three lecture, three laboratory hours per week. PREREQUISITES: MECH 3322, 3331. [O921 1]
4152.6152. Applied Soil Mechanics. (3). Applications of theory to design of building foundations, retaining walls, and hydraulic structures. Three lecture hours per week. PREREQUiSITE: CIVL
4151 . 0921.1 4151. [0921.1]
3143. Transportation Systems Engineering. (3). Development and function of transportation systems; operational control and characteristics; system coordination, traffic flow and patterns.
Three lecture hours per week. PREREQUISITE: senior standing in civil engineering. 10908-3]
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 parking
structor. [O908.3]
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 labo ratory hours per week. PREREQUISITE: CIVL 3111 . [O908-1] 4171. Construction Engineering I. (3). Planning, estımating, and bidding of heavy construction propects; development and use of scheduling algorithms for control of construction projects; linear programming and other optimization tech-
niques and their application to resource allocation and bidding niques and their application to resource allocation and bidding
strategy. Three lecture hours per week. CQREQUISITE: CIVL strategy. Three
3144. (0908.1]
3145. Construction Engineering II. (3). Selection of equipment for heavy construction projects; cost analysis, productivity, pro cedures and safety aspects of construction operations; empha sis on heavy construction project synthesis. Two lecture, three laboratory hours per week. PREREQUISITE: CIVL 4171. [0908.1]
3146. Construction Contracts and Specifications. (3). Principles of contract law as applied to heavy construction engineer. ing; legal problems in preparing and administering construction contracts, varietıes of construction contracts; specification Three lecture hours per week. PREREQUISITE: consent of in. Three lecture hour
structor. [0908.1]
3147. Quality Control in Heavy Construction. (3). Development of quality control systems for heavy construction industry; quantitatıve and statistıcal techniques for establishing contract compliance; quality assurance sampling, testing, and additional construction control techniques. Three lecture hours per week.
PREREQUISITE: consent of instructor 10908 . 1$]$ PREREQUISITE: consent of instructor. [0908.1]
3148. Civil Engineering Projects. (1-3). Independent investigation of a Civil Engineering problem in consultation with instruc tor. PREREQUISITE: consent of instructor. [0908.8]

## ELECTRICAL ENGINEERING

PROFESSOR THOMAS DEWEY SHOCKLEY, JR.,
Room 206B, Engineering Building

## Q820 ELECTRICAL ENGINEERING (ELEC)

2201. Circuit Analysis I. (3). Fundamental properties of electrı. cal circuits; bastc concepts and circuit elements; analysis meth. ods and network theorems; sinusoidal steady state response;
introduction to transients. Three lecture hours per week. CQ introduction to transients. Three lecture hours per week. CQ
REQUISITE: MATH 2322. [0909. 1] REQUISITE: MATH 2322. [0909. IJ
2202. Circuit Analysis Laboratory. (1). Introduction to utilization of meters, oscilloscopes, oscillators, power supplies and related test equipment in experimental verification of basic elec trIC circuit theory. Three laboratory hours per week.
CQREQUISITE: ELEC 2201. [0909.1] 3201. Circuit Analysis II. (4). Continuatıon of ELEC 2201. Resonance, impedance and admittance functions, network theorems
and analysis, complex frequency plane, polyphase circuits and and analysis, complex frequency plane, polyphase circuits and
magnetic coupling. Three lecture, three laboratory hours : 3r magnetic coupling: Three lecture, three labo
week. PREREQUISITE: ELEC 2201. [0909. I]
2203. Transform Methods In Network Analysls. (3). Introduc. tion to transform theory; application of Fourier, Laplace and Z-transforms to solution of network problems. Three lecture hours per week. PREREQUISITE: ELEC 2201. [0909.1]
2204. Electronlcs I. (3). Active vacuum, gas and solid state devices as elements of electric circuits: linear models and linear operatıon of these devices stressed. Three lecture hours per
week. PREREQUISITE: ELEC 2201 and ELEC 2203. [0909.1] 3212. Electronics II. (4). Power amplifiers; feedback amplifiers; oscillators; modulation and detection, rectifiers. Three lecture, three laboratory hours per week. PREREQUISITE: ELEC 3211. 10909. 1]
2205. Electronics I Laboratory. (1). Emphasis on laboratory techniques in performance of basis electronic experiments. [0909.1]
2206. Engineerlng 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 prostructure in machine language. Subroutine and utility pro-
grams, systems programs, and other software. Formulation of assemblers, compilers, and interpreters oriented toward com-puter-controlled systems. Three lecture hours per week. PRE. puter-Controlled systems. Three
REQUISITE: ENGR 1011. [0702.1]
2207. Matrix Computer Methods in Electrical Engineering. (3). Application of matrix theory to solution of circuit problems. In. troduction 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. PRE.
REQUISITE: ELEC 3201. 0705 . 1]
2208. 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. analyzing data. Three lecture, three labol
PREREQUISITE: ELEC 3212 . 0909.1$]$
2209. Energy Converslon. (3). Energy conversion by electrome. chanical processes, energy relations in magnetic systems, mathematical modeling of magnetic systems, transformers and electrical machines. Three
SITE: ELEC 2201. [0909. IJ
4202.6202. Electrical Power Systems. (3). Investigation of problems associated with transmission of electrical energy. Load flow studies, and fault analysis by use of symmetrical
components. Three lecture hours per week. PREREQUISITE: components. Three lecture hours
permission of instructor. [0909-1]
2210. Energy Conversion Laboratory. (1). Fundamental properties associated with testing and utilization of direct current and of alternating current equipment such as motors, generators, alternators and transformers. Three laboratory hours per week. CQREQUISITE: ELEC 4201. [O909. 1]
2211. Electromagnetic Field Theory I. (3). Maxwell's equations electrostatics, magnetostatıcs and time varying electromag.
netıc fields. Three lecture hours per week. PREREQUISITE: netıc fields. Three lect
MATH 3391 . [0909. 1]
4212.6212. Electromagnetic Field Theory II. (4). Plane, cylin. drical and spherical waves; high frequency iransmission lines; introduction to microwave and antenna theory. Three lecture, three laboratory hours per week. PREREQUISITE: ELEC 4211.
[0909. 1] 4213.6213. Antenna Theory and Design. (4). Continuation of 4212. Emphasis on theory of operation and design of antennas. Determination of antenna radiatıon characteristics. Introduction to antenna array theory. Three lecture, three laboratory hours per week. PREREQUISITE. ELEC 42 12. [0909. 1]
4221.6221. Pulse and Digital Circuits. (4). Timing, scannıng, trigger and pulse circuits; astable, bistable and monostable multivibrators; binary counting circuits. Three lecture, three laboratory hours per week. PREREQUISITE: ELEC 3212.
[0909 1]
2212. Introduction to Logical Design and Switching Circuits. (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 week. PREREQUISITE: ELEC 3212 or permission. [0702.1]
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. [0909 1]
4232.6232. Discrete Signal Processing. (3). Introduction to deterministic and random discrete time signal analysis. In cludes signal time averagıng, digital filtering, spectral analysis, and detection and estimation of signals. Applications to computer processing biomedıcal, seismec, and radar signals. PRE. REQUISITE: ELEC 3202. [0703.1]
4240-6240. Introduction to Quantum Electronics. (3). Quan. tum concepts, Schrodinger equation, quantization of electromagnetic radiation. Laser theory and application. Three lec.
ture hours per week. PREREQUISITE: senior standing. [0909. 1 ]
4241-6241. Solid State Physical Electronics. (3). Quantum con cepts; statistics; crystal structure; conduction processes in solids; $p \cdot n$ junctions and devices; field-effect devices; charge
transfer devices. Three lecture hours per week. PREREQUI. transfer devices. Three lecture hours per week. PREREQUI. SITE: ELEC 3211 . [0909. 1]
4251-6251. Control System Engineering. (4). General equatons of physical linear systems and their transfer functions.
plot, Nichols chart, Nyquist plot, Routh.Hurqitz criterion, locus methods, introduction to compensation techniques systems in state space. Three lecture, three laboratory
per week. PREREQUISITES: ELEC 3202, 4201. [0909.1]
4261-6261. Introduction to Network Synthesls. (3). Synth of canonical LC, RL, RC, and RLC driving point impedan Synthesis and realization of lossy one and two port netwo
Three lecture hours per week. PREREQUISITE: ELEC 32 [0909. 1]
4270-6270. Introduction to Microprocessors. (3). LSI circl microprocesser architecture, hardware and software, app tion and system design using a Microprocessor Assemula
Three lecture hours per week. PREREQUISITE: ELEC 3 Three lec
[0701.1]
4271.6271. Microcomputer Appllcations. (3). Introductic common peripheral devices and interfacing techniques. U! high level languages to aid in microcomputer system de Microprocessor applications. Three lecture hours per PREREQUISITE: ELEC 4270 [0705.1]
2213. Electrical Engineering Projects I. (1-3). Independen vestigation of problem selected in consultation with instru 4992. Electrical Englnearing Projects II. (1-3). Design, struction and testing of project investigated in ELEC 499 port required. PREREQUISITE: ELEC 4991. [0909.8]

## ENGINEERING TECHNOLOG

## PROFESSOR W.T. BROOKS, Chairman

Room 203, Technology Building

Q890 ARCHITECTURAL TECHNOLOGY (TECH 1555. History of Architecture. (3). Major trends in archite from prehistoric times to present. Emphasis on impact of nological and social changes on prevailing architectural st [0925.1]
2555. Architectural Design I. (4). Fundamentals of arcl tural design; basic techniques of drafting, perspectives, pro tation and working drawings. Three lectures, three labon hours per week. [0904-1]
2556. Site and Environmental Planning. (3). Building site lection and utilization, including environmental influe
Technical aspects such as zoning, contour lines, parkin gress/egress, site drainage, building location and landsca! Two lecture, two labo
TECH 2555 . [0913.1]
2561. Building and Construction Systems. (3). Comprehe arch architectural technology. Iwo lecture, two labo
week. PREREQUISITE: TECH 2556. [O925.1]
3471. Structural Design I. (3). Fundamentals of structur; sign and analysis of steel and timber buildings and bui [0925.1]
3472. Structural Design II. (3). Fundamentals of structur sign and analysis of concrete buildings and building ce
nents. PREREQUISITES: MATH 1321, TECH 3401 . [0925.
3520. Architectural Design II. (4). A contınuation of 2555. Basic design concepts and methods as applied to ${ }^{\circ}$ ing types, design, construction, and systems for units o per week. PREREQUISITE TECH 2555, 3471. [O904.1]
3521. Architectural Model Making. (3). Continuation of 2555 , including pictorial representations, model buildin furnishings design. PREREQUISITE: TECH 2555. /0925.1
3531. Mechanical Equipment in Construction I. (3). Stud 3531. Mechanical Equipment in Construction I. (3). Stud
electrical and thermal services for commercial and resid structures. PREREQUISITE: TECH 3520. [0925. Ij
3532. Mechanical Equipment in Construction II. (3). Emp on sanitary, water services, etc. for commercial and
structures. PREREQUISITE: TECH 3531 . [0925. 1]
4515. Architectural Design III. (4). Continuation of TECH Design concepts and methods as related to mass hori and vertical architectural development. Three lecture, thre oratory hours p
3472 . [0904.1]
4525-6525. Building Codes and Regulations. (3). Code $K$ regulations, in general, that influence the design and con regulations that influence building construction. [0925.1] 4530. Architectural Specifications and Contracts. (3). Exa tion of typical contract documents beginning with agretoon. Emphasis on roles and responsibilities of each part format for specifications, including proper organization, and utilization of complete set of specifications. [0925.1]

Q890 COMPUTER SYSTEMS TECHNOLOGY (TE 2251. Advanced Programming Techniques. (4). Modeliņ nıques applicable to engineering technology. Subpro
tape input/output, random-access storage devices, cc arithmetic, and double precision operations emphasized. lecture, three laboratory hours per
ENGR 1011 or TECH 1010 . (0925 3)
3251. Data Structures. (4). Application of high speed computer to problems associated with storage and retri numeric and non numeric data in engineering systen
cludes representation and organization for storing of searching and sorting techniques, decision tables, maintenance techniques. Three lecture, three laboratory
per week. PREREQUISITE: TECH 2251 or equivalent. ןO9

1. Computer Simulation Technology. (4). Languages de. hed for simulation of physical systems. Includes general pur. e languages, as well as languages designed for electronics con struction technology. Laboratory consists of application inalog, digital and hybrid computers to simulate large scale tems. Three lecture, three laboratory hours,
2UISITE: TECH 2251 or equivalent. (0701-1)
;1-6251. Assembly Language Programming. (4). Investigaof a particular mini-computer from programmer's view-
tt . Includes machine representation of data, instruction t . Includes machine representation of data, instruction
nats, machine operation and addressing techniques, input/ put, and interrupts. Applications include use of minicompu. for numerical control and in sensor based systems. ee lecture, three laboratory hours per week. PREREQUI.
E: TECH 2251. [0701.3] E: TECH 2251. [0701-3]
;1. Computer Applications in Engineering. (4). Applications roblem oriented and procedure oriented languages to probis from selected areas of engineering technology. Includes collecting, modeling techniques. constraints, program depoment and validation. Areas of emphasis may vary to meet
 25.1]

1-6271. Computer Techniques. (4). Advanced computer iniques in industry. Includes APT programming for NC maqe tools, application of computer to solve PERT networks
applications in production planning and control. ee lecture, three laboratory hours per week. PREREQUIE: TECH 2251, COREQUISITE: TECH 3422. [0702.1]
11-6831. Computer Technology I. (3). Introduction to digital analog computer hardware relating to computing circuits systems; numbers systems; switching and logic circuits;
age devices; input and output devices; principles of proage devices; input and output devices; principles of proREQUISITE: TECH 2831 or permission of instructor.
$01.1)$
2-6832. Computer Technology II. (3). Introduction to intercomputer organization and configuration design; compoit and device characteristics; data representation, transter
storage; Boolean algebra; combinational logic. Two lecture, storage; Boolean algebra; combinational logic. Two lecture,
e laboratory hours per week. PREREQUISITE: TECH 4831 e laboratory hours per week.
ermission of instructor. (0701.1)
4.6834. Digital Systems in Technology. (4). Industrial and mercial applications of microcomputers and microproces; theory of operation of MSI and LSI logical devices, memand input/output devices; techniques of microprogram9, testing and maintenance. Three lecture, three la
rs per week. PREREQUISITE: TECH 4832. [0701-1]
5. Microprocessor Interfacing Techniques. (4). Application iicroprocessors to equipment; emphasis on interface probs. Techniques employing conventional Logic devices as well SI components. Testing and maintenance techniques of
pment using microprocessor based design. Three lecture, e laboratory hours per week. PREREQUISITE: TECH 4834. 25.1]

Q890 CONSTRUCTION TECHNOLOGY (TECH)

1. Introduction to Surveying. (3). Surveying practices, caltions, and use of topographical conventions. Two lectrure, e laboratory hours per
MATH 1212. [0925-1]
2. Construction Safety. (3). Hazards and their control as rea to construction industry. [0925-1)
3. Soil Technology in Construction. (3). Soil technology as ied to construction field. Fundamental properties of soils application to foundations, highways, retaining walls and
be stability. Relationship between soil charactertistics and ie stability. Relationship between soil charactertistics and
oogic formations. Two lecture, three laboratory hours per M. PREREOUISITE: junior standing or approval of instruc (0925-1)
4. Construction Administration. (3). Ethical practice, social onsibility, licensing, codes, and public regulation of coning, specification writing and interpretation, functions of
itect engineer and owner, construction contracts, bonding. ritect engineer and owner, construction contracts, bonding, oledures, joint venture and subcontract relationship. PRE. RUISIE: junior standing. [0925-1]
RUS
5. Estimating. (3). Study and practice of specifications, biddi procedures, and estimating. PREREQUISITE: TECH 2555
31
Land Surveying. (3). Historical background of property sleys. Writing adequate land descriptions. Interpretation o pitice. Two lecture, three laboratory hours per week. PRE RUISITE: TECH 1451. (0925-1)
Wo. Construction Planning and Scheduling. (3). Principles o Ining scheduling, organizing, and controlling construction ofects. Studies in critical path method (CPM) and PERT, with
ceurce leveling and financial scheduling. Computer applicaurce leveling and tinancial scheduling. Computer applica
is in CPM and PERT emphasized. Two lecture, three labora hours per week. PREREQUISITE: senior standing. [0925-1 4). Construction Methods and Equipment. (3). Theory and artice of construction operations, equipment utilization, con
stition methods, analysis of costs, crew and equipment. PRE ? WISITE: senior standing. [O925-1]
42.6522. Construction Logistics. (3). Theory and practice of truction project bidding using statistical concepts of proba-
and computer applications. Otfice procedures, job and and computer applications. Office procedures, job and iccontracts. PREREQUISITE. senior standing. [0925-1]

## 0890 ELECTRONICS TECHNOLOGY (TECH)

8. Electronics Technology I. (3). (Same as CMUS 1811).
lees, circuit and network theorems, laboratory emphasis on electrical measurements and proper use of instruments. KH 1213. [0909-11] K. 1213. [0909.1]
9. Electronics Technology II. (3). Circuit analysis methods in modern electronics technology. Laboratory confirmation o mathematical solutions to problems involving Direct and Alter-
nating Currents. Two lecture, three laboratory hours per week nating Currents. Two lecture, three lab
PREREQUISITE: TECH 1811. [0925-1]
10. Electronics Technology III. (3). Theory of solid-state de vices and electron tubes with applications in power supplies vices and electron tubes with applications irchits. Solid State
amplifiers and other basic electronic circuiter amplifiers and other basic electronic circuits. Solidestand
diodes, bipolar junction transistors, and field effect transistors diodes, bipolar junction transistors, and ield effect transistors emphasized. Two lecture, three laboratory hours per week
PREREOUISITE: TECH 1811. COREQUISITE: TECH 1821 10909.1]
11. Electronics 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 circuits; em phasis on integrated circuits. Two lecture, three laboratory hours per week. PREREQUISITE: TECH 2821.. [0909. 1]
12. Electronics Communications. (3). Principles of modula. tion 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. [O925-1]
13. Industrial Electronics. (3). Electronic circuits and sys tems in modern industry. Theory and industrial applications of devices such as gas and vacuum tubes, unijunction transistors, silicon controlled rectifiers, diacs, triacs, opto-electronics, and synchros. Two lecture, three laboratory hours per week. PRE REQUISITE:TECH 2831. [0925-1]
14. Control Instrumentation. (4). Theory of application of au tomatic control equipment, principles, operations and construc tion of pneumatic hydraulic, electrical, and automatic ratio controllers. Three lecture, three laboratory hours per week PREREQUISITE: TECH 3821 or permission of instructor.
[0925.1]
15. Advanced Applied Electricity. (3). Generation and utilization of single and polyphase electrical power in home and industry; $D C$ and $A C$ generators, motors, regulators and meters in both individual and systerns applications. Two lecture, three laborator 1 ]
16. Acoustical Equipment and Studio Techniques. (3). (Same as CMUS 3861). Application and operation of microphones, magnetic tape recorders, signal processing equipment, studio consoles, noise reduction devices, speakers, and studio session procedures. Three lecture/two laboratory hours per week. PRE REQUISITE: TECH 1811. [0925-1]
17. 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 studio recording and associated equipment; techniques of recording, mixing,
mix-down, and special effects. PREREQUISITE: TECH 2831. mix.down,
18. Antenna Technology. (4). Detailed examination of trans mission lines and antennas, using applications approach with minimum of purely mathematical analysis; applications in both wire and wireless systems. Three lecture, three laboratory
hours per week. PREREQUISITE: TECH 3811. (0925-1]
19. Advanced Electronic Communications Technology. (3). Concepts, systems and practical applications in generation, transmission and detection of aural, data and visual informa. PREREQUISITES: TECH 4821 and 4834. (0701-1)
20. 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 permission of instructor. [0925.1]
21. Video Communications. (3). Theory and application of technical equipment for generation, transmission, and recep tion of video signals, both closed circuit and broadcast. Two lec.
ture, three laboratory hours per week. PREREQUISITE: TECH ture, three labo
22. [0925.1]
23. Studio 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]

## 0890 INDUSTRIAL ARTS (TECH)

3831. Industrial Arts Electronics. (3). Briet coverage of applied electronics for prospective teachers. Two lecture, three labora
tory hours per week. PREREQUISITE: TECH 1821. (0909.1)
3832. Energy and Power Technology. (3). Principles of energy systems and power mechanics to include energy sources, con version and transmission. Internal and external combustion en
gines include gasoline, diesel, jet and rockets. Atomic, solar gines include gasoline, diesel, jet and rockets. Atomic, solar
and alternative energy sources including laboratory experiand alternative energy sources including laboratory exper
ments 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 training pro granization management, administration, training area layout equipment, facility update, curriculum utilization, and budget: ing. [0925.1]
3833. Shop Equipment Maintenance. (3). Understanding of preventive maintenance, maintenance and calibration of instru ments and power equipment used in industrial education shops. [0925-1]
4363-6363. School Shop Safety. (3). Overview of evolving school safety standards as prescribed by OSHA and TOSHA. Understanding and application of satety standards. Includes shop safety programs, and accident prevention. [0925:i]
3834. Crafts for Teachers. (3). Study and experience with craft materials. [0839-1]
3835. Research and Development. (3). Materials, methods and procedures for presenting research and development in Indus. trial Arts Laboratory. Two lecture, three laboratory hours per week. PREREQUISITE: junior standing. [0925-1]
3836. Communication Industries. (3). Materials, methods and procedures for presenting communication industries in the Industrial Arts Laboratory. Two lecture, three laboratory hours 1811. (0925.1)

Q890 MANUFACTURING TECHNOLOGY (TECH)
1511. Graphics I. (3). Introduction to graphic representation and presentation. Basic exercise in lettering, use of instru ments, sketching, geometric construction and projections; how ever, problem solving st
hours per week. (0925.1)
1611. Introduction to Forest Products Technology. (3). Lecture and related laboratory activities employed to study fundamental concepts of wood utilization, wood fabrication, operations of woodworking machines, adhesive technology, wood lamination and bending wood anatomy, wood finishing, and the organiza tion of forest products and industries. Two lecture, three labo ratory hours per week. [0925-1]
1711. Machine Production Techniques. (3). Metalworking equipment and machinery for production usage, including safety, care, layout, cutting feeds and speeds, 1001 grinding, drilling, tapping, shaping, turning, and
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 laboratory hours per week. PREREQ UISITE: TECH 1511. (0925-1]
2512. Graphics II. (3). Contınuation of TECH 1511 to include working drawing, details, assemblies and pictorials. Shades and shadows considered. Two lecture, three laboratory hours per week. PREREQUISITE: TECH 1511.' [0925.1]
2611. Principles of Wood Lamination and Bending. (3). Industrial wood lamination and bending techniques; emphasis placed on adhesive technology. Two lecture, three laboratory hours per week. [0925-1]
2651. Survey of Forestry. (3). Introduction to forestry as it rela tes to tree farming, the environment, conservation and utiliza tion practices, and
dustries. 0925.1$]$
3386. Industrial Safety. (3). Industrial hazards and satety procedures. [0925-1]
3410. Plastic Properties and Processes. (3). Classification and properties of basic groups of plastics and industrial processes and techniques used in transforming raw materials into usable products. Two lecture, three labor
REOUISITE: CHEM 1051. 10925-1]
3421. Manufacturing Processes. (3). Processes and techniques used to shape materials into useful products. Techniques in used to shape materials into useful products. Techniques in-
clude cutting, molding, stamping, extruding, cold and hot form clude cutting, molding, stam
ing, and grinding. [0925.1]
3422. Metal Manufacturing Processes. (3). Advanced study and practice in metals machining and fabrication. Emphasis on ad vanced techniques in duplicating equipment, numerically controlled machines, milling, shaping, grinding, and turning. Two
lecture, three laboratory hours per week. PREREOUISITE: lecture, three laborato
TECH 1711.10925 .11
3424. Product Pretreatment and Finishing. (3). Introduction to product pretreatment and finishing; emphasis on methods, ma-
terials, and equipment. Test procedures and environmental asterials, and equipment. Test proc
pects also investigated. [0925.1]
3505. Applied Dynamics. (3). Motion and effects of forces act ing on particles, lines, and rigid bodies in motion. PREREQ UISITES: MATH 1321 and TECH 3400. [0925.1]
3573. Mechanical Dasign. (3). Basic consideration of mechanisms, kinematics, linkages, cams, and gears. Two lec.
ture, three laboratory hours per week. PREREQUSITE: TECH ture, thre
2511 .
10925.11
3601. Light Frame Building Construction. (3). Practices of con temporary light frame building construction; emphasis on building materials and 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 finishing materials and systems. Two lecture, three laboratory hours per materials and systems. Two 1611. [O925-1]
3631. Wood Technology. (3). Lecture and related laboratory activities to study anatomy, characteristics, and properties of wood; cause of wour defects and deteroration. Two lecture, two laboratory hours per week. [0925-1]
3718. Metal Forming and Fabrication. (3). Industrial metal forming and fabrication processes and techniques. Includes layout and fabrication of sheet, plate and mill stock; casting processes and welding techniques. Two lecture, three labora tory hours per week. PREREOUISITE: TECH 1711. [O925-1]
3731. Metallurgy. (3). Properties of ferrous and non ferrous metals; emphasis on physical and mechanical properties, cold and hot working, heat treatment, hardening and resting. Two lecture, three laboratory hours per
TECH 1711 and CHEM 1051. [O925-1]
3921. Electrical and Mechanical Safety. (3). Electrical hazards associated with industry and problems of protecting worker from mechanical hazards on the job. [0925-1]
3931. Materials Handling Safety. (3). Inplant traffic problems as manual; safety of operation for forklifts, cranes, trucks and other mechanized equipment. [0925-1]
4460.6460. Motion and Time Analysis. (3). Methods improve ment, motion economy, and development of time standards by direct observation, predetermined time standards, and synthe. sis. [0925.1]
4462-6462. Statistical and Quality Control. (3). Statistical methods for analyzing quality problems; include control charts for varıables and attributes; single, double and multıple lot-by. lot acceptance sampling plans; and computer applications to quality assurance. [0925.1]
4464.6464. Production Control. (3). Planning and control of production; emphasis on intermittent and continuous manufacturing. Fields of study include forecasting, designıng control
forms, using visual controls, scheduling, dispatching, preplanforms, using visual controls, scheduling, dispatch
ning, and using critical path techniques. [0925. 1]
4466-6466. Plant Layout. (3). Designing a plant with respect to materıal handling, machıne location, auxiliary services, capita requirements, safety, and personnel organization. (0925.1] 4468. Production Methods. (3). Study and comparative analy. sis of production methods and techniques used to manufacture various types of products. Emphasis on plant visitation and analysis with respect to methods used, plant layout, production
control procedures and time standards established. [0925.1]
4470-6470. Human Performance Factors. (3). Determining most effective way to integrate man and task he is to perform by studying work procedure, workstation layout, and equipment design. Two lecture, three laboratory hours per week. [0925.1] 4472. Computer Aided Design and Manufacturing. (3). Current state of the art regarding use of computers for product and part design and part manufacture and assembly. Topics include software and hardware used in CAD CAM, current trends in
tomated factory, group technology and robotics. $(0925-1)$
4571. Machine Design. (3). Design of basic machine elements, subassemblies and assemblies. Two lecture, three laboratory
hours per week. PREREQUISITES: MATH 1212 and TECH hours per week
2511. [0925 1]
4591. Tool Design. (3). Design and application of jigs, fixtures, and dies. Two lecture, three laboratory hours per week. PRE 4661. Advanced Wood Technology. (3). Lecture and related laboratory activities to study wood preservation technology, wood drying technology, and pulp and paper technology. PREREQUI-
SITE: TECH 3631 . 10925 . SITE: TECH 3631. (0925.1]
4951. Fire Safety. (3). Causes of fire, organization of fire brigades, methods of fire suppression and protection of property. 4952. Chemical Safety. (3). Chemical hazards to worker and environment and methods for control. [0925.1]
4961. Industrial Hygiene. (3). Potential hazards of work environment. Exposure of worker to toxic materials and physica stress, samplıng techniques for determining exposure and methods of prevention. [0913.1]

## Q890 SUPPORTING COURSES (TECH)

1010. Introduction to Computer Usage. (3). Instruction on how computers operate. Methods of communicating with computers through input and output devices. Elementary and familiar cal culations programmed in BASIC. Hands on operational experi-
ence with remote terminal equipment. Two lectures, three laboence with remote terminal equipment. Two lectures, three labo-
ratory hours per week. PREREQUISITE: High School ratory hours per w
Mathematics. 10701.11
1011. Introduction to Technology. (1). Emphasis on engıneer. ing 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 solving. [0925-1]
1012. Introduction to Instrumentation. (3). Basic mechanical and electrical instruments used in measurement of temperaper week. PREREQUISITES: TECH 1411, 1811 and MATH

1013. Technical Report Writing. (3). Scientific methods for organızing technical reports. Includes technical correspondence and resumes; systematizing, analyzing and interpreting technical information and presentation of charts, diagrams and other
graphic aids. PREREQUISITES: TECH 1511 and ENGL 1102. graphic ald
[0925.1]
1014. Analysis for Engineering Technotogy. (4). Application of mathematical, scientific, and engineerıng principles to solution of technology problems, using a variety of examples from vari. ous major areas in Technology. Students analyze and provide lems using language and techniques of related technological lems using language and techniques of related technological disciplines and selected areas of mathematics, such as algebra,
trigonometry calculus, and differential equations. Three lectrigonometry, calculus, and differential equations. Three lec-
fure, three laboratory hours per week. PREREQUISITE: MATH ture, three labor
1015. [0925.1]
1016. Fluid 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 with effects of forces acting upon rigid bodies at rest. PREREQ.
UISITES: MATH 1321. PHYS 2112 . 0925.1$]$
1018. Strength of Materials. (3). Analysis and study of struc tural materıals. PREREQUISITES: TECH 3400, MATH 1321, PHYS 2112 . [0925. 1]
1019. Industrial Materials (3). Properties of structural materials and methods used to test for these properties. Two lecture, three laboratory hours per week. [0925.1]
1020. Project Cost Evaluation. I (3). Industrial as well as per. sonal financial situations and how they are affected by interest rates and "Time Value" of money. Investigation of economic alternatives including applications of existing formulas, techUISITE: junior standing or permission of instructor. [0925.2] 3450. 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
nancial alternatives. PREREQUISITE: TECH 3440. [O925.1]
1021. Principles of Supervision. (3). Functions of supervisory 4381. Principles of
personnel. [0925.1]
1022. Problems in Technology. (3). Study and research in spe. cific area. PREREQUISITE: senior classification for majors and minors in Technology who offer satisfactory evidence of being qualified to benefit from course. [0925.8]
Q895 VOCATIONAL.TECHNICAL EDUCATION (VTED) 1011. Introduction to Industrial Education. (3). Qverview of programs in vocational, technical, and industrial arts educa
tion. Includes history and development, aims and objectives activities, and contemporary nature of programs. (0925.1]
1023. Cooperative Occupational Education. (3). (Same as DTED 3010 and HMEC 3010). Introductory study of occupational edu cation programs which use work experience coordinated with elated in school instruction to provide career preparation in
the trade and industrial areas. (O839.1] the trade and industrial areas. (0839-1]
1024. Manipulative Skill in Occupational Specialty. (3.15). granting degree or acceptance of nationally administered evaluation program. (0925 8)
1025. Knowledge of Related Subjects to Occupational Specialty. (3-15). Credit determıned by performance evaluation by department granting degree or acceptance of nationally administered evaluation program. [0925-8]
1026. Analysis of Teaching. (3). (Same as EDUC 3301). Microteaching demonstrations plus observation and evaluation by
teacher educator. PREREQUISITE: three years satisfactory teaching experience in vocational-technical subject specialty. [0839. 1]
1027. Occupational Internship. (6). Cooperative work experience program for persons having neither saleale skill nor work experience adequate to meet certification requirements. 10925 5]
1028. Job Analysis. (3). Systems approach to identifying and specifying content in vocational-technical education, compo-
nents of instructional system, identification of student needs nents of instructional system, identification of student needs and abilities, job des
objectives. [O925-1]
4120.6120. Curriculum Building 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 operation of youth organizations in vocational training programs. Includes youth organization development, history of youth organizations in America, parliamentar
law, youth organization activity and competition. [0925-1]
4140.6140. Organization and Utilization 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]
1029. Vocational.Technical Instructional Materials. (3). Selection, use, and construction of audiovisual materials for voca-
tional-technical education. Emphasis on integration of these tional-technical education. Emphasis on integration
materials into the total instructional system. [0839.1]
4611-6611. Principles and Philosophy of Vocational Education. (3). Same as DTED 4611 and HMEC 4611). History, philosophy, principles and objectives of vocational education, curriculum problems, contribution of vocational-technical education [0839-1]
1030. Techniques of Coordination of Cooperative Occupational Education. (3). (Same as DTED 4641 ). Selecting trainıng agencies; developing job analyses; selecting and briefing traıning supervisor; selecting and working with advisory committees;
utilizing other community resources. PREREQUISITE: VTED utilizing other
3010 . 0839.1 ]
1031. 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]
1032. 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]
1033. Curriculum Problems in Vocational-Technical Education. (1-3). Independent study and completion of a term paper deal. ing with a current curriculum problem in vocational-technical education. [0839.8]
1034. Seminar in Vocational-Technical Education. (1-9). Workshops and conferences dealing with instructional and opera4930. 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. Experience in Vocational.Technical Education. (1-9). Advanced training in industry for instructors desiring to up-date their skills or to ad
specialty. (0925.5]

## GEOLOGY

## PROFESSOR RICHARD W. LOUNSBURY, Chairman

Room 312, Engineering Building

## Q850 GEOLOGY (GEOL)

1101. Physical Geology. (4). Earth's composition and strue processes which continually modity surface. Three lecture processes which cont hours per week. [1914-1]
1102. Historical Geology. (4). History of earth and its life a terpreted from rock and fossil records. Principles of inter ing records and succession of geologic and biologic el per week. PREREQUISITE: GEQL 1101 . [1914.1]
1103. Mineralogy. (4). Introduction to crystallography and tal chemistry. Physico chemical properties and identificatii important ore and rock forming minerals. Three lecture laboratory hours per week. PREREQUISITES: GEQL 1101
1201; CHEM 1111 ; CQREQUISITE: CHEM 1112 . (1914.1) 2312. Petrology. (4). Study and identification of rocks. E) nation and identification of minerals; emphasis on rock-fori
mınerals included in studies of rocks. Two lecture, four lai mınerals included in studies of rocks. Two lecture, four lai
tory hours per week. PREREQUISITE: GEQL 2311 . / 1914.1 . 3100. Life of the Past. (3). Fossil record of the history o and consideration of concepts used in interpreting the sit not be given toward the degree requirements for a major i: ology. (1914.1]
1104. Introduction to Paleontology. (4). Fossil invertebrate mals and their importance in interpretation of ancient env ments, evolution, and geologic time. Three lecture,
laboratory hours per week. PREREQUISITES: GEQL laboratory hour
1105. (1918.1]
1106. Structural Geology. (4). Rock structures; origin, cri for recognition and solution of structural problems. Two
ture, four laboratory hours per week. PREREQUISITE: ( 1201. (1914.1)
1107. Sedimentation and Stratigraphy. (4). Principles of tigraphy and sedimentation; interrelationships of struc stratigraphy, and environments of deposition. Three lec
two laboratory hours per week. PREREQUISITE: GEQL 120 two laboratory hours per week.
consent of instructor. [1914.1]
1108. Introduction to Oceanography. (3). Principles of phy and chemical oceanography. Sea floor topography, geolog)
linity and contribution of life to physical and chemical asp linity and contribution of life to physical and chemical asp
From point of view of geological engine driven by int forces and creating earth surface features. Three lecture $r$ per week. (1919.1)
1109. Environmental Geology. (3). Geological constraint human society. Energy resources, mineral resources and o ria for land use. NQTE: Credit will not be giver
requirements for major in geology. [1914 1]
$4100-6100$. Petroleum Geology. (3). Application of geo principles to search for economic accumulations of oil and lecture, two laboratory hours per week. [1914.1]
4121.6121. Optical Crystallography. (3). Principles and $n$ ods of study of optical crystallography. Use of polarizıng $m$ scope in the identification of minerals. Two lecture, four lal
tory hours per week. PREREQUISITE: GEQL 2312. (1914-1 4201-6201. Airphoto Interpretation and Remote Sensing. j Introduction to theory and application of black and white color air photos and side-looking radar, multispectral sca and infrared imagery. Laboratory primarily concerned ber week. (1914.1)
4202-6202. Geomorphology. (4). Theories of landscape d opment; consideration of processes active at earth's sur weathering, pedogenic, mass-wasting, groundwater, fluvia lian, shoreline and glacial. Three lecture, two laboratory $t$.
per week. (1914.1] 4251. Quaternary Geology. (3). Quaternary stratigraphy history; emphasis on implications of climatic change. Geo techniques particularly suited to Quaternary research. [191 4301-6301. Geologic Data Analysis. (3). Use of computer teletype in data lines, maps, and classification of data sets with aid of puter. Two lecture; two laboratory hours per week. PRERE puter. Two lecture, two laboratory hours per week. PRER
SITE: senior standing or consent of instructor. [1914.1] 4312.6312. Introduction to X.Ray Diffraction. (3). Basic pI ples of x-ray diffraction. Application to crystallographic mineralogic problems including mineral identification by
der method. One lecture, four laboratory hours per week. der method. One lecture, four laboratory hours
REQUISITE: permission of instructor. [1914.1]
4322.6322. Petrography. (4). Classification, description, thin-section study of rocks by means of petrographic $m$ scope Three lecture, two labo
UISITE: GEQL 4121. [1914.1]
4332.6332. Introduction to Geochemistry. (3). Geological chemical processes which govern or control migration anc tribution of elements and atomic species of earth in space
time. Three lecture hours per week. PREREQUISITE: ( time. Three lec
1110. [1915. 1 ]
4342.6342. Principles of Biostratigraphy. (3). (4421). ? distribution, facies analysis, and paleoecology of fossils their application to problems of earth history and deposit
environments. Emphasis on fossil fuel bearing sediments. environments. Emphasis on fossil fuel bearing sediments. 4511.6511. Economic Mineral Deposits. (3). Qrigin, $\alpha$ posits. Three lecture hours per week. PREREQUISITES: ( posits. Three lecrure hours per
2311,2312 , and 3512 . [1914.1]
4601.6601. Engineering Geology. (3). Application of princ and knowledge of geology to engineering practice, especia highways, construction, dam sites, foundations, watel
sources, and location of certain engineering materials. 7 ecture hours per week. PREREQUISITE: consent of instruc [0911.1]

2-6622. Geology Field Camp. (6-8). Mapping of structure lithology of prescribed geologic area. Offered during sum-
May be taken at college field camp offered by other May be taken at college field camp offered
cols subject to approval of major advisor. [1914.1]
0 . Soil and Clay Mineralogy. (3). Occurrence of non clay erals in soils and sediments. Origin and classification of s and identification of clays and non-clay minerals. Engiring properties of soils related to clay and non-clay. mine Two lectures, two laboratory hours per week. [1914-1]
2.6632. Applied Geophysics. (4). Survey of geophysical hods; emphasizes seismic and electrical investigations em-
ed in engineering practice. Use of resistivity, seismograph ed in engineering practice. Use of resistivity, seismograph
magnetometer in the investigation of subsurface materials. ation of sand, gravel, and subsurface water discussed and ation of sand, gravel, and subsurface warements with these instruments. plemented by field measurements with [1916-1]
11-6701. Spring Field Trip. (1-2). Conducted field trips dur spring vacation. About 30 hours of field work follow 2.4 rs of lectures. Qpen to non-majors. Among areas which may
included are Quachita-Arbuckle-Wichita Mountains of homa; Quachita, Ozark dome and adjacent mineral diss; central and southern Appalachians; and Gulf Coastal s, Check Schedule of Classes for specific location. NOTE: be repeated three times when location varies. A total of no e than 8 hours credit may be earned. Dates, hours and lits to
$14.8]$

1. Investigations in Geology. (1-3). Individual or group work topics of current interest. PREREQUISITE: consent of inctor. [1914.8]
2. Senior Thesis. (1-3). Original study, on subject of geolog. significance, to be carried on independently by student with Ity supervision. PREREQUISITE: senior standing in Geol[19148]

## MECHANICAL ENGINEERING

PROFESSOR JOHN D. RAY, Chairman

Room 108A, Engineering Building

Q870 MECHANICAL ENGINEERING (MECH)
2. Dynamics. (3). Kinematıcs and kinetics of particles and bodies. Three lecture hours per week. PREREQUISITE: 2131. [0910.1]
3. Mechanical Instrumentation and Measurement. (3). Accy, precision and statistical consideration of measurement dynamics of measurement; displacement, velocity accelon, force, torque, pressure and temper ature measurement; hanical impedance; measurement of fluids and instrumenn systems. Lectures supplemented with labor:
ions. PREREOUISITE: MECH 2332 . [0910.1]
. Engineering Thermodynamics I. (3). Laws of thermody-
ics and their applications to engineering problems. Three ics and their applications to engineering problems. Three re hours pe
3. Engineering Thermodynamics II. (3). Applications of therT/namics laws; emphasis on real gases, real gas mixtures, bustion, gas cycles and vapor cycles. Three lecture hours 3. Dynamics and Control of Machines I. (3). Dynarmics analsof mechanism including rigid body dynamics and balanctif machines. Introduction to linear mechanical systems and © per week. PREREQUISITES: MATH 2322, MECH 2332.
3322. Mechanics of Materials. (4). Analysis of stress and strain of deformable solids; tension, compression, torsion and flexure. Three lecture, three laboratory hours per week. PREREQUISITE. CIVL 2131. [0910.1]
3323. Mechanical Design and Analysis I. (3). Methodology and practice in designing machine components by integrating principles from mechanics of materials, failure theory, fatigue, economics
[0910-1]
3331. Mechanics of Fluids. (4). Statics and dynamics of fluids; applications to measurement of properties of water and air flows. Three lecture, three laboratory hours per week. CQREOUISITE: MECH 2332. [0910.1]
3341. Mechanical Engineering Analysis. (3). Engineering methods, classical analysis, computer techniques, and their interactions with mechanical engineering problems. PREREQUISITE MATH 3391 . [09 10-3]
3361. Materials Science. (4). Structure and properties of solids; modification of structure for engineering purposes; characteris. tics of polymers, ceramics, and metals. Three lecture, three laboratory hours per week. PREREQUISITE: PHYS 2512. [0915-1] 4301. Fluid Machinery and Energy Use for Non-Engineers. (3). Fluid machinery and energy exchange on elementary level. Lectures supplemented with laboratory demonstrations.
Understanding of algebra required. Credit will not be allowed for sfudents in Engineering and Engineering Technology. [0910-1]
4303-6303. Experimental Stress Analysis. (3). Application of electric resistance strain gage, photoelasticity and brittle lac quer techniques to solution of stress analysis problems.
[0910.1)
4309. Gas Dynamics. (3). Thermodynamics of fluid flow including dynamic and energy relations, adiabatic and diabatic flows. Three lecfure hours per week. PREREQUISITE: MECH 3312. [0910.1]
4310. Fluid Power I. (3). Design, analysis and evaluation of pneumatic control components and systems. Includes principles of fluid logic pneumatic sensors, fluid amplifiers and other fluid logic devices. [0910.1]
4311. 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. PREREQUISITE: MECH 3311 . [0910-1]
4312. Power Generation. (3). Application of principles of thermodynamics, fluid mechanics and heat transfer to conversion of useful energy. Includes terrestrial and thermodynamic limita tions, power plants, nuclear energy, solar energy, and direct en
ergy conversion. PREREQUISITE: MECH 3311. (0910-1] ergy conversion. PREREQUISITE: MECH 3311. [O910-1]
4313-6313. Heat Transfer II. (3). Contınuation of MECH 4311 with application to design of heat transfer systems. PREREQUI SITE: MECH 4311. [09 10.1]
4315-6315. Heating, Ventilation and Air Conditioning. (3). Psychometrics analyses, heating and cooling loads of buildings and analyses of air conditioning systems. Three lecture hours per week. PREREOUISITE: MECH 3312. (0910.1)
4316-6316. Energy Conservation and Management. (3). Energy conservation including combustion, heat distribution, heat re jection, heating system efficiency, etc. Effects of energy production and utilization on environment. Problems of energy management. PREREQUISITE: MECH 4311. [0910-1]
4317-6317. Fundamentals of Solar Engineering. (3). Introduction to engineering applications of solar energy including solar energy collectors, storage systerns, and uses such as power generation and heating and cooling of buildings. [0910-1]
4318-6318. Combustion. (3). Concepts of high temperature and chemically reacting gases. Adiabatic flame temperature. Kinetics of reactions. Detonation. Products of pollutants in combustion systems. (0910.1)
4322. Mechanical Design and Analysis II. (2). Analytical treat ment of methods used in design process including creativity, probability, and optimization as applied to design process, from Concept through preliminary design to final design. PREREQUI
SITE: MECH 3323 . 0910.1 . SITE: 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 interest areas that reflect contemporary problems in mechanical engi neering. [09 10-1]
4325-6325. Advanced Mechanics of Materials. (3). Unsymmetrical bending and torsion of flexural members of non circular cross section, beams, on elastic foundations and other selected topics: de
[0910. 1]
4326.6326. Biomedical Systems Analysis-Mechanical. (3). (3326). Introduction to concepts used in analyzing living sys tems. Simulation of body functions with mechanical and com. puter models. Familiarization with design of mechanical bioen gineering 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 dimen.
sional analysis. Three lecture hours per week. PREREQUISITE: MECH 3331. [09 10.1]
4333. Fluid Power II. (3). Design and analysis of hydraulic power and control components and systems. [0910.1]
4334.6334. Engineering Acoustics and Noise Control. (3). Engr. neering analysis of acoustics related to noise and its control,
applications to control of noise in machines, buildings, indus applications to control of noise in machines, buildings, industrial facilities and transportation. [09 10-1]
4344. Dynamics and Control of Machines II. (3). Analysis of me chanical vibrations for mult. degrees of freedom systems and response, control and stability of mechanical systems. PRE. response, control and stability of
REQUISITE: MECH 3321 . [0910.1]
4345-6345. Design of Mechanisms. (3). Graphical and analyt1cal mechanism synthesis techniques for path generation, func tion generation, rigid body guidance and optimization of force transmission characteristics. PREREQUISITE: MECH 3321. [0910.1]
4346-6346. Mechanical Controls. (3). Fundamental control systern concepts, the Laplace transformation, modeling of me chanical control system elements, design of mechanical sys tems and stability criteria. PREREQUISITE: MATH 3391. [0910-1]
4351-6351. Nuclear Engineering. (3). Power generation. Peaceful uses of nuclear energy. Three lecture hours per week PREREQUISITES: upper division standing, consent of instruc tor. [0920-1]
4361. Metallurgy. (4). Physical metallurgy, heat treatment, and metallography. Three lecture, three laboratory hours per week PREREQUISITE: MECH 3361. (0914-1]
4371-6371. Mechanical Vibrations. (3). Kinematics of har monic and non-harmonic vibrations; system of one and several
degrees of freedom, free and forced vibrations; self excited vibrations. Three lecture hours per week. PREREQUISITE: MATH 3391. [091011]
4381. Manufacturing Operations I. (3). Machines, tools, and processes used in modern production. Three lecture hours per week. PREREQUISITE: MECH 3322. [0910-1]
4382. Manufacturing Operations II. (3). Design of electromechanical systems for manufacturing processes and produc tion operations; based on optimization of man-machine interaction, selection of materials and manufacturing process for high speed production equipment. PREREQUISITE: MECH 4381. 0910.11
4391. Mechanical Engineering Projects. (1-3). Independent in with instructor. PREREQUISITE: consent of instructor. [0910-8]

## THE UNIVERSITY COLLEGE

hellowing courses are open to students enrolled in the Uni Mry College. Others may enroll with the permission of the specific content of Liberal Studies and Thematic Studies will vary from semester to semester; general course de. ons are presented here,

R950 LIBERAL STUDIES (UNIV)
Communication I. (6). Exercises in critical listening and etation and in effective writing and speaking based on ieical analyses of selected documents (e.g., essays, docuresry films, narratives, plays, poems, speeches, etc.) PRE-
EqSITE: application or admission to University College, or SITE: application or ad
02 Communication II. (6). Research into and critical interon of those media which create environment of symbols on of those media which create environment of symbols effects of such environments on human belief and aci, film, recorded music and systems of electronic commuin. Individual research into symbols used for com EQUISITES: UNIV 1010 or ENGL 1101 and ENGL 1102 or eiquivalents, and application or admission to the University e or permission of dean. [4901.9]

1. Humanities. (6). Research into and critical interpretation ror documents and symbols of Western civilization; emon man's attempt, in philosophy, religion, history, literaend fine arts, to frame coherent place for himself in world. tel two historical periods stressed. NOTE: On occasion, this
course will be same as certain sections of HIST 1301 and HIST 1302, focusing on surver of Western civilization. See Schedule of Classes. PREREQUISITE: application or admission to Univerof Classes. PREREQUUSITE: application or ad
sity College, or permission of dean. [4903. 1]
2. Social Science. (6). Introduction to fundamental con cepts 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 certain sections of INTL 1101 and 1102 , with regiona/ focus on Third World Nations. See Schedule of Classes. PRE.
REQUISITE: application or admission to University College, or REQUISITE: application or admission to University College, or permission of dean. [4903-9]
3. Natural Science. (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 dis. ciplines. Laboratory work included. PREREQUISIEE: application or admiss
[4902.9]
4. Leisure and Recreation. (2 or 4). Relationship between leisure, recreation, and work; emphasis on balanced lifestyle. Qpportunities to participate in and demonstrate selected recre-
ational skills and activities. PREREOUISITE: application or ad ational skills and astivities. PREREQUSisition of dean. [4901-9]
misiversity College, or permission

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 sity 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 re peated for maximum credit of six hours. PREREQUISITE: appli cation or admis
dean. [4999-8]
3700. Special Topics. (3-6). Interdisciplinary examination of se lected topics announced in Schedule of Classes. [4999. 1]
4110 . Internship. (3-12). Supervised training in work related to student's educational objectives. May be repeated to maximum of 12 hours. PREREQUISITE: admission to University Coliege [4999-5]
4380. Independent Study. (1-3). Directed individual study or re search. 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 re peated to maximum of 6 hours. PREREQUISITE: admission to University College. [4999. 8]
996. Special Project. (9). Academic research or other creative activity resulting in tangible product to demonstrate synthesis f student's Coordinated Study. PREREOUISITE: admission to University College and completıon of a Thematic Studies course (UNIV 35.-). [4999.8]

R950 EXPERIENTIAL LEARNING (UNIV)
portiolio describing and documenting knowledge gained through experience or non-traditional instruction may be pre pared by a University College student for assessment by a fac tails. That. (See page 26 for fees and page 45 for more de level and amount of credit to be assigned by the dean of Un versity College.

1900-1999. Introductory Level Experiential Learning in scriptive title). [4999-9]
2900-2999. Intermediate Level Experiential Learning in scriptive title). [4999.9]
3900-3999. Advanced Level Experiential Learning (descriptive title). [4999.9]

## AEROSPACE STUDIES

LT. COLONEL JAMES C. KASPERBAUER Professor of Aerospace Studies

Room 404, Jones Hall

## A010 AEROSPACE STUDIES (ROTC)

1111. Air Force Today. (1). Study of world military forces hrough treatment of U.S. Department of Defense and doctrine through treatment of U.S. Department of Defense and doctrine, hour per week and one hour of "Leadership Laboratory. [1803.1]
1112. Air 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 Laboratory. [1803-1]
1114. The Development of Air Power. (1). Continuation of ROTC 2211. One class hour per week and one hour of *Leader ship Laboratory. [1803-1]

## PROFESSIONAL OFFICER COURSE

3211. Aerospace Studies Four. Week Field Training. (4). Twenty eight day course conducted during summer at active installa tion of USAF; consists of approximately 185 hours of instruc tion in Alr Force base functions, leadership, physical training Alr force environment, career orientation, and survival training Students assigned to groups of twenty five and individually counseled and evaluated on their performance. Emphasis on elf-initiated leadership activities. PREREOUISITE: ROTC 1111 1112,2211,2212, or equivalent. [1803.8]
3212. Aerospace Studies Six Weak Field Training. (6). Forty-two day course conducted during summer at active installation of USAF; Consists of approximately 258 hours of instruction on ole of military forces, organization of Defense Department, in struments of national security, Air Force base functions, leader ship, physical traıning and Aır Force environment. Students are assigned to groups of twenty-five and individually counseled and evaluated on their performance. [1803.8]
3213. Air Force Management and Leadership. (3). Professionalism, leadership and management. Includes meaning of profes sionalism, professional responsibilities, military justice system eadership theory, functions and practices; management princi ples and functions; problem solving; and management, tools, practices and controls. Three class hours per week and one practices and controls. Three class hours per week and one
hour of Leadership Laboratorr. [1803.1]
3214. Air Force Management and Leadership. (3). Contınuation of ROTC 3311. Three class hours per week and one hour of *Leadership Laboratory. [1803.1]
3215. National Security Forces in Contemporary American So ciety. (3). Fundamental issues and requirements of national se curity. Extensive study of civil military relations, nature of inter national environment and strategic requisites for defense. Three class hours per week and one hour of "Leadership Labo. ratory. [1803.1]
3216. National Security Forces in Contemporary American So ciety. (3). Continuation of ROTC 4411 . Three class hours per week and one hour of "Leadership Laboratory. [1803.1]

4413 . Elementary Aeronautics. (3). Introduction to aviation and he fundamental principles of fight; basic meteorology and its applications to aviation; use of navigation computers, instru ments, and radio aids; basic regulations governing airmen, air craft operations, and flight safety, preparation for FAA Privat Pilot Written Examination. Three class hours per week. [1803-1]

- Leadership Laboratory. Evolves around cadet corps, a micro cosm of an Air Force organization. Opportunity for actual lead ership training experiences as it is largely cadet planned and perated. Additionally, staff uses it as a means to evaluate and develop leader ship potential. One hour per week


# AUDIOLOGY <br> AND SPEECH PATHOLOGY 

PROFESSOR DANIELS. BEASLEY Chairman

Speech and Hearing 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. In clude nature of sound, structure and function of the human auditory system, disorders of hearing, measurement of hearing and loss, hearing conservation, and aural 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<br>Office of International Studies

Old Brister Library, 130

Courses offered for the International Studies program with the cooperation of two or more University departments are listed 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 Developing 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 its sequence INTL 1102 has been approved to satisfy the social science requirement of the University College (UNIV 1410). A student may not receive credit for both INTL 1101.1102 and UNIV 1410. [2210.1]
1102. The Third World: A Regional View. (3). Interdisciplinary survey of contemporary developing nations within a major world region. Regional focus on Africa, Latin America, South. east Asia, or Indian Subcontinent. [2210-1]
1103. Seminar in Latin American Studies. (3). Interdisciplınary 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. PREREOUISITE: nine hours of course work in African studies representing three disciplines from group anthropology, geog. raphy, history, and political science, or permission of African Studies advisor. [2210-1]
1105. Seminar in African Studles II. (3). PREREOUISITE: INTL 4301. [2210.1]
1106. Seminar In Internatlonal Relatlons. (3). Investigation of selected topics in international relations from interdisciplinary perspective. Individual research and presentation of major pa per which integrates tools, data or concepts of two or more dis ciplines. PREREOUISITE: permission of International Relations advisor [2210.1]

## MEMPHIS STATE UNIVERSITY LIBRARIES

## V945 MSU LIBRARIES (LBRY)

2010. Introduction to the Use of Library Resources. (3). duction to organization of academic library material; emp on bibliographic access to information-Lectures and ass problems to a acquaint student with general cialized methods of access to library material. [1601.1]

NURSING<br>PROFESSOR BONNIE WEAVER GRANT, Chairman<br>Room 316, Manning Hall

## U970 NURSING (NURS)

3000. Pharmacology in Nursing. (3). Integration of know from pharmacology and nursing to explore physiologica psychological reactions to drup therapy. Use, actions, ar fects of maior drug groups and appropriate nursing resp
3001. Individualized Study. (1-3). Directed individualize proach to increase nursing knowledge, understanding, skills according to student needs and level objectives. As ment of student determines content areas and clinical $e$; ence needed. May be repeated for maximum of 6 c Credit not applied toward B.S.N. degree. [1203.8]
3002. Nursing Theories. (3). Introduces conceptual thi and theoretical analysis of contemporary theories of nu and related disciplines with application to nursing researc, practice. Group membership skills. Open also to specia dents with permission of instructor. [1203-1]
3003. Health Assessment. (3). (3100). Focus on asped comprehensive health assessment of individuals and fan interviewing and history taking as well as physical assess skills; problem oriented record as method of organizing Clinical laboratory. Open also to special students with pe sion of instructor. [1203-1]
3004. Clinical Nursing I. (3). (3100). Nursing process in § primary care to individuals and families in community se Emphasis on direct care, wellness, communication, and lem solving skills. Clinical laboratory. PRE or COREOU BIOL 3440 of NURS 3000. [1203-1]
3005. Clinical Nursing II. (6). Focusing on nursing proce giving primary and secondary care to individuals and fa; with chronic health problems in community settings. SITE. NURS 3002, 3101, 3102. PRE-or COREOUISITE 3440 or NURS 3000. [1203.1]
3006. Clinical Nursing III. (6). Emphasizes conceptua proach in nursing process for clients of all age groups complex health problems. Clinical experience focuses on oping role of professional nurse in secondary and tt health care settings. Clinical laboratory. PREREOUISITE: 3200 . COREQUISITE: NURS 4100. PRE- or COREOU EDRS 4541. [1203-1]
3007. Nursing Leadership. (3). Focus on theory, researct practice of leadership roles in nursing groups within healt system; such concepts as communication, status, power vation, change, conflict resolution, job satisfaction, and sion making in relation to nursing process and pract groups. Open also to special students with permission structor. [1203.1]
3008. Clinical Nursing IV. (6). Incorporation of curricula $n$ cepts into synthesizing and resocializing process. Stude, sponsible for identifying specific learning objectives in se area of nursing practice; for demonstrating a professioni change through application of curricular concepts, nursin ories, and relevant research findings within framework of ing process; and for demonstrating synthesis throuf evaluation of personal nursing philosophy. C/inical labor. PREREOUISITE: NURS 4000, 4100. COREOUISITE: 4542. [1203-1]

## UNIVERSITY HONORS PROGRAM <br> PROFESSOR JOSEPH R. RILEY, Directc

[^7]V960 UNIVERSITY HONORS PROGRAM (UNHP)
00-3199. Junlor Honors Colloquium I. (3). Interdisciplinary oquium on broad theme or topic. Specitic course descripis each semester in "Addenda" section of Schedule of sses. PREREQUISITES: junior standing and permission of ector of University Honors Program. [4999.1] 00-3299. Junior Honors Colloqulum II. (3). Same as UNHP
00, except different theme or topic. PREREQUISITES: junior jo, except different theme or topic. PREREQUISITES: junior
nding and permission of Director of University Honors Pronding and pe
m.
(4999. 1)
0-4199. Senlor Honors Seminar I. (3). Interdisciplinary ninar on narrower theme or topic than ones in junior honors oquia. Specific course descriptions each semester in "AdIda" section of Schedule of Classes. PREREQUISITES: senstanding and permission of Director of University Honors gram. [4999.8]

0-4299. Senior Honors Seminar II. (3). Same as UNHP 00, except different theme or topic. PREREQUISITES: senior o, except different theme or topic. PREREQUISITES: senior | nding and pe |
| :--- |
| m. |
| 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 ap proved by the University Honors Council and directed by a fac ulty committee chosen by the student and approved by the Honors Council. PREREOUISITES: senior standing and permis. sion of the Director of the University Honors Program. [4999.8]

## URBAN STUDIES

## ASSISTANT PROFESSOR

STANLEY E. HYLAND, Coordinator
A description of the interdisciplinary 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, Foun
dations of Education, Geography, History, Political Science, and Sociology and Social Work are included in this program, and the descriptions of these courses will be found under the appropri te departmental headings.

## V980 URBAN STUDIES (URBN)

 4001. Urban Studies Seminar. (3). Urban problems and theircauses; overview of perspectives and contributions of each of causes; overview of perspectives and contributions of each of
six participating disciplines which include urban anthropology, six participating disciplines which include urban anthropology, urban geography, urban history, urban economics, urban poll.
tics, and urban sociology. Summary reviews of problems and proposed solutions in related fields presented. Required for all proposed (2214-1]
4995. Urban Studles Internship. (3). Supervised internship working with urban agencies in city, state or national level. In ernship program deals primarily with data collection and analy sis. [2214.5]


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## FACULTY AND STAFF

The names, positions, and titles listed in this section reflect the status as of Summer 1980.

## ACADEMIC AFFAIRS

JERRY NEAL BOONE, Ph.D., Vice President for Academic Af fairs
JOHN R. DILL, Ph.D., Associate Vice President Academic Pro grams
VICTOR FEISAL, Ph.D., Associate Vice President for Academic Administration
EDMUND P. SEGNER, JR., Ph.D., Associate Vice President for Research and Graduate Studies
MARANELL KHATEL, M.Ed., Director of Academic Planning
MARTHA L. PORTER, Ed.D., Associate Director of Administra tive Planning
NOEL A. SCHWARTZ, M.Ed., Research Associate
ALICIA TILLEY, Ed.D., Dean of Graduate Studies
NICHOLAS L. WHITE, J.D., Dean of The 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 Admissions and Records (Admissions)
ANDREW J. MORGRET, M.Ed., Associate Dean of Admissions and Records, (Record's)
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 Affairs
JOHN K. WEBB, J.D., Assistant Dean of Students, Judicial Af. farrs
JOHN J. ANDERSEN, M.S., Director of University Center
ALLEN J. HAMMOND, M.Ed., Director of Student Financial Aid
DENNIS E. HEITZMANN, Ph.D., Director of Center for Student Development
JOHN MICHAEL RAYBURN, M.B.A., Director of Health Services N. DEWAINE RICE, Ed.D., Director of Residence Life

DONA S. SPARGER, M.A., Director, Handicapped Student Services
RONALD W. VIOLETTE, Ph.D., Director, Campus Recreation and Intramurals
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 Business 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
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## PLANNING <br> LINZY ALBERT, M.A., Chairman

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## 1982-83 TENTATIVE CALENDAR

This calendar is tentative, and students should check the 1982-83 BULLETIN and the SCHEDULE OF CLASSES for possible changes or additions.

## FALL SEMESTER 1982

UGUST 23-26: Off-campus registrations (exact dates, times, and locations to be announced prior to registration)
UGUST 26: Meeting of the new members of the University faculty, University Center Ballroom 9:00 A.M.

UGUST 27: Meeting of the entire University faculty, University Center Ballroom, 9:00 A.M., followed by meetings by colleges and departments
UGUST 28: Registration: The Graduate School
UGUST 30-SEPTEMBER 1: Registration Week: For detailed dates and times, see the Schedule of Classes for the Fall Semester, 1982
EPTEMBER 2: Classes meet as scheduled
EPTEMBER 6: Holiday: Labor Day

## EPTEMBER 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.)
EPTEMBER 29: Last day for removing Summer Session "Incomplete" grades
CTOBER 1: Class Break (Classes will not meet) CTOBER 22:
Last day for undergraduate students to withdraw from the University
Last day for all students to drop courses
OVEMBER 9: Last day for graduate students to withdraw from the University
OVEMBER 24: Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in May, 1983
OVEMBER 25-28: Thanksgiving Holidays
ECEMBER 9: Study Day
CEMBER 10: Final examinations begin
CEMBER 18: Commencement

## SPRING SEMESTER 1983

NUARY 4-7: Off-Campus registrations (exact dates, imes, and locations to be announced prior to regisration)
NUARY 8: Registration: The Graduate School
NUARY 10-12: Registration Week: For detailed dates and times, see the Schedule of Classes for the Spring Semester, 1983
NUARY 13: Classes meet as scheduled

## NUARY 19:

Last day for adding courses
Last day for making application to the Dean of Graduate Studies for degrees to be conferred in May, 1983. (File the "Intent to Graduate Card" and submit "Application for Master's Degree Candidacy" papers.)
BRUARY 1: Last day for removing Fall Semester 'Incomplete' grades
IRCH 4:
Last day for undergraduate students to withdraw from the University
Last day for all students to drop courses
IRCH 13-20: Spring Holidays

MARCH 30: 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

## PRE-SUMMER SESSION 1983

MAY 9: Registration
MAY 10: Classes meet as scheduled
MAY 18:
Last day for undergraduate students to withdraw from the University
Last day for all students to drop courses
MAY 20: Last day for graduate students to withdraw from the University
MAY 27: Final examinations

## FIRST SUMMER TERM 1983

MAY 30-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 degrees 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 Sum. mer 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
JULY 27:
Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in December, 1983
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 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 dates and times, see the Schedule of Classes for Summer Session, 1983
JUNE 2: Classes meet as scheduled
JUNE 6: Last day for making application to Dean of Graduate Studies for degrees to be conferred in August, 1983
JUNE 7: Last day for adding or registering for Ex. tended Term courses
JUNE 21: Last day for removing Spring Semester "In. complete" grades
JULY 4: Holiday: Independence Day
JULY 6:
Last day for all students to drop courses (Extended Term)
Last day for undergraduate students to withdraw from the University (Extended Term)
JULY 11-12: Mid-Term Break
JULY 20: Last day for graduate students to withdraw from the University (Extended Term)
JULY 27: Last day for making application to dean of appropriate undergraduate college for degrees to be conferred in December, 1983
AUGUST 11: Study Day
AUGUST 12: Final examinations
AUGUST 14: Commencement

## NINE WEEK TERM 1983

MAY 31-JUNE 1: Registration for Nine Week Summer Term

## JUNE 6:

Nine Week Term classes meet as scheduled
Last day for making application to the Dean of Graduate Studies for degrees to be conferred in August, 1983
JUNE 8: Last day to add Nine Week Term courses
JUNE 21: Last day for removing Spring Semester "Incomplete" grades
JULY 4: Holiday: Independence Day
JULY 5:
Last day for all students to drop courses (Nine Week Term)
Last day for undergraduate students to withdraw from the University (Nine Week Term)
JULY 11:
Course adjustment day and registration for Second Term
Nine Week courses will not meet
JULY 13: Last day for graduate students to withdraw from the University (Nine Week Summer Term)
JULY 27: Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in December, 1983
AUGUST 3: Final examinations (Nine Week Term)
AUGUST 14: 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 ar available through our office. For more information print your name and address in the space below and return this form $t$ 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 accomme dations available to you on the campus and in the community. The supply of available facilities is limited, and applicatic does not guarantee an assignment. Early application is recommended! You need not have been accepted as a student i Memphis State in order to apply for residence hall accommodations, but, of course, you must have received your fin acceptance before you assume occupancy of your room assignment. Memphis State University is committed to a policy i nondiscrimination with respect to race, religion, and national origin, and practices consistent with the University's policy at followed in housing.

## HANDICAPPED STUDENT SERVICES Information Request

$\qquad$
Address

Phone
Social Security Number
Disability (Please Describe)

## Return To: Coordinator <br> Handicapped Student Services <br> Department of Special Education and Rehabilitation <br> Memphis State University <br> Memphis, Tennessee 38152 <br> Or Call: (901) 454-2731 weekdays between 8:00 AM-4:30 PM.

Section 504 of the Rehabilitation Act requires the follo ing:
(A) Information concerning handicaps cannot be used determining acceptance to the University.
(B) Information may be submitted on a voluntary bas only.
(C) Information submitted must remain confidential.

Therefore, please do not return this portion concerni, handicapped services until you have received your noti of acceptance.

# VSTRUCTIONS FOR COMPLETING THE <br> PPLICATION AND PROCEDURES OR UNDERGRADUATE ADMISSION 

NDERGRADUATE ADMISSION

## LL APPLICANTS

The application form should be completed carefully by all applicants seeking admission to any undergraduate program. pplications must be submitted prior to August 1 for fall admission; December 1 for spring admission; or May 1 for summer dmission. 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 niversity. Checks or Money Orders should be made payable to Memphis State University. Applications should be returned , the Admissions Office, Memphis State University, Memphis, Tennessee 38152. For detailed information regarding dmission 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 orwarded directly to the Admissions Office. Copies of such credentials accepted from the applicant will be considered unofcial.

## EGULAR UNDERGRADUATE APPLICANTS

eshman (no previous college): Request a copy of your high school record. If your high school graduation is through the eneral Educational Development (GED) program, have these scores forwarded to the office. You must submit scores arned on the ACT or SAT examination for consideration. If you have not been in school within the last six (6) months, you ay 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 pur application, a personnel evaluation form will be sent to you. Complete this form and ask the student personnel office at e 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 ;ores in addition to college transcripts. Concealment of previous college atiendance may be cause for rejection or cancellaon of admission.

## ITERNATIONAL APPLICANTS

The University is authorized under Federal law to enroll non-immigrant, alien students on "F-1" student visas. The estabthed deadlines for applying are May 1 for fall admission; September 15 for spring admission; or February 1 for summer Imission. For additional information, contact the International Student Office.

## PECIAL 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.

IE ADMISSIONS OFFICE is located in Suite 215 of the Administration Building. Office hours are 8:00 A.M.-4:30 P.M. Moncy through Friday. The telephone number for general admissions information is (901) 454-2101. After 4:30 P.M. and Satiday mornings call 454-2398.

FOR INFORMATION, CONTACT THE OFFICE LISTED BELOW:

ACADEMIC COUNSELING.
FINANCIALAID HOUSING VETERAN AFFAIRS READMISSIONS . . . . . . . . . . . . Administration Building Room 163, (901) 454-2674

## GUIDELINES FOR THE CLASSIFICATION OF STUDENTS FOR FEE PAYING PURPOSES

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 tuition purposes and for admission purposes.
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 academic year or years or the appropriate portion or portions thereof since the beginning of the period for which continuous enrollment is claimed. Such person need not enroll in summer sessions or other such inter-sessions beyond the normal academic year in order that his or her enrollment be deemed continuous. 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 instate 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 enrollment 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 put higher educational institutions of $t$ state).
(5) Military personnel and their spout stationed in the State of Tennessee 1 would be classified out-of-state accordance with other provisions these regulations will be classified c of-state but shall not be required to out-of-state tuition. This provision st not apply to military personnel and th spouses who are stationed in this St primarily for educational purposes.

PARAGRAPH 5. PRESUMPTION: UnIt the contrary appears from clear and Ci vincing evidence, it shall be presumed th an emancipated person does not acqu domicile in this state while enrolled a: full-time student at any public or priv higher educational institution in this sta as such status is defined by such insti tion.
PARAGRAPH 6. EVIDENCE TO BE CC SIDERED FOR ESTABLISHMENT OF DO CILE: If a person asserts that he or she $t$ established domicile in this State he or: has the burden of proving that he or ? has done so. Such a person is entitled provide to the public higher educatio institution by which he seeks to be clay fied or reclassified in-state, any and all ! dence which he or she believes will sust his or her burden of proof. Said institut will consider any and all evidence provic to it concerning such claim of domicile will not treat any particular type or iter such evidence as conclusive evidence $t$ domicile has or has not been establishe
PARAGRAPH 7. APPEAL: The classifi tion officer of each public higher edv tional institution shall be responsible initially classifying students in-state or of-state. Appropriate procedures shall established by each such institution which a student may appeal his or her tial classification.
PARAGRAPH 8. EFFECTIVE DATE F RECLASSIFICATION: If a student classi- 1 out-of-state applies for in-state classif tion and is subsequently so classified, or her in-state classification shall be ef tive as of the date on which reclassifica: was sought. However, out-of-state tui will be charged for any quarter or sen ter during which reclassification is sol and obtained unless application for rec sification is made to the admissions off it on or before the last day of registratio that quarter or semester.
PARAGRAPH 9. EFFECTIVE DATE: Tr regulations supersede all regulations ( cerning classification of persons for : and tuition and admission purposes pl ously adopted by the State Boarc Regents, and having been approved by Governor, became effective May 1, 19 MEMPHIS STATE UNIVERSITY

e of High School $\qquad$ Date of Giaduation

City

## State <br> 2.p Code

is your name on your high school transcript?
have earned the high school GED equivalent, indicate date earned you taken a college entrance examination (ACT, SAT)? $\qquad$ Yes No you registered and/or have you attended any college or university? $\square$ Yes $\qquad$ No
what is your name on your college transcript?
bu currently enrolled? $\square$ Yes $\square$ No

ALL College experience including Memphis State. If none, write NONE.


22

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## Residency Action:

Determination: (1) ___ Non-Res.


Admission Action:
Approved:
Date:

Not Approved:
Date:
REMARKS:
MEMPHIS STATE UNIVERSITY CAMPUS MAP




Speech and Hearing Center - SHC Physical Ed. Building - PB Printing Services


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\begin{array}{ll}
\text { 32. } & \text { Ellington Biological Bldg. - EB } \\
\text { 44. } & \text { Engineering - EN } \\
\text { 44A. Engineering Technology - ET } \\
\text { 23. } & \text { Field House - FH } \\
\text { 22. } & \text { Old Gymnasium (WKNO-TV) } \\
\text { 20. } & \text { Hayden Hall } \\
\text { 46. } & \text { Health Center - HC } \\
\text { 39. } & \text { Heating Plant } \\
\text { 43. } & \text { Information Center } \\
\text { 37. Johnson Hall - JN } \\
\text { 12. } & \text { Jones Hall - JO } \\
\text { 1. Law Building - LW } \\
51 . & \text { Life Sciences Building - LS }
\end{array}
$$

Locations not shown on campus map:

$$
\begin{array}{ll}
\text { 16. } & \text { Administration Building - AD } \\
\text { 54. } & \text { Alumni Center } \\
\text { 42. } & \text { Art Annex - AA } \\
\text { 11. Art Building - AB } \\
\text { 40. } & \text { Athletic Office } \\
\text { 35. } & \text { Brister Lifrary - BL } \\
\text { 35A. Brister Library Tower } \\
\text { 19. Browning Hall } \\
\text { 13. } & \text { Cafeteria } \\
\text { 30. } & \text { Campus School - CS } \\
\text { 33. } & \text { Clement Humanities BIdg. - CL } \\
\text { 48. } & \text { College of Bus. Adm. - BA } \\
\text { 49. } & \text { Winfield Dunn Bldg. - WD } \\
\text { 29. } & \text { Education Building - ED } \\
\text { 27. } & \text { Education Annex - EA }
\end{array}
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Bulletin of
Memphis State University 1981-82
Memphis,Tn. 38152

Second Class Postage
Paid At
Memphis,Tennessee

Frudernentals of Financis? Whrigement



[^0]:    **See also the listing for the College of Business Administration.
    †Collateral Major recommended.

[^1]:    *Recognition of graduation with distinction at commencement ceremonies will be based on the comple tion 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.

[^2]:    *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.

[^3]:    *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.

[^4]:    *See also the listing for the College of Busıness Administration +Collateral Major recommended.

[^5]:    The Department of Criminal Justice offers a major in Criminal Justice in three concentration areas: Police, Corrections and General Criminal Justice. Five major criminal justice areas are indicated by the second digit of the course number, i.e. General
    $=1$; Law Enforcement $=2$; Courts $=3$; Corrections $=4$; Law $=5$.
    $=5$

[^6]:    The political science areas of study are indicated by the second digit of the course number: General -1, American Govern ment and Public Law $=2$, Comparative Government -3 , Political Theory $=4$, International Relations $=5$, Public Adminis tration $=6$, and Special -7 and 8 .
    The prerequisite for all 4000 level courses is either junior standing or the permission of the instructor.

[^7]:    A description of the University Honors Program appears tion 7. Colleges and Degree Programs. Descriptions of tis lege and departmental programs are found with the appr major and degree descriptions.

[^8]:    CHARLES H. ALWORTH (1976), Assistant Professor: B.B.A., 1965, M.P.A., 1966, The University of Texas at Aus tın; C.P.A., 1967, Texas, 1968, California; D.B.A., 1979, Mıs sissippi State University
    CHARLES D. BAILEY (19B0), Assistant Professor: B.B.A. 1969, M.B.A., 1973, M.P.A., 19B0, Ph.D., 19B0, Georgia State University
    M. FRANK BARTON, JR. (1977), Assistant Professor: B.S., 1949, University of Tennessee; M.B.A., 1970, Memphis State University; Ph.D., 1975, University of Mississippi; C.P.A.
    1972, Tennessee, 1975, Louisiana

