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## Undergraduate Issue 1979-1980




THE HONORABLE LAMAR ALEXANDER, Governor of Tennessee, ex officio<br>THE HONORABLE CLYDE M. YORK, Commissioner of Agriculture, ex officio<br>THE HONORABLE ED COX, Commissioner of Education, ex officio<br>THE HONORABLE G. WAYNE BROWN, Executive Director, Tennessee Higher Education Commission, ex officio<br>THE HONORABLE JAMES H. JONES, JR., Vice Chairman, Mount Pleasant<br>THE HONORABLE KENNETH EZELL, Murfreesboro<br>THE HONORABLE DALE GLOVER, Obion<br>THE HONORABLE J. HOWARD WARF, Statutory, Hohenwald<br>THE HONORABLE WILLIAM W. FARRIS, Memphis<br>the honorable Johnella H. MARtin, Nashville<br>THE HONORABLE C. C. BOND, Chattanooga<br>THE HONORABLE ELLA V. ROSS, Johnson City<br>THE HONORABLE C. SCOTT MAYFIELD, Athens<br>the honorable George M. Klepper, JR., Memphis<br>THE HONORABLE DAVID WHITE, Knoxville<br>THE HONORABLE J. C. EOFF, JR., Tullahoma<br>THE HONORABLE VAN RIGGINS, Student Regent, Austin Peay State University

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Vol LXVIII, Number 1
February, 1979
Bulletın coordınated by Maranell Khatel. Director of Academic Planning. Office of the Vice President for Acadermic Affairs
Published six tımes yearly-February, Marich, April, May, July, and December-by Memphis State University. The validity date for degree requirements is summer, 1986
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 required by federal or state laws or accreditation standards. The specific courses or activities constituting the degree requirements for any program are subject to substitution at any time prior to completion by the student.

The remaining provisions of this bulletin reflect the general nature of and conditions concerning the educational services of Memphis State University at this time, but do not constitute a contract or otherwise binding commitment between Memphis State and the student. Any fees, charges or costs, and all academic regulations set forth in this bulletin are subject to change at any 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 qualified for teaching at the college level. However, the acquisition of knowledge by any student is contingent upon the student's desire to learn and his application of appropriate study techniques to any course or program. As a result, the institution does not warrant or represent that any student who completes a course or program of study will necessarily acquire any specific knowledge or skills, or will be able to successfully pass or complete any specific examination for any course, degree, or license. (SBR 2:04:00:01)

## MEMPHIS STATE UNIVERSITY

## ALL APPLICANTS

The application form should be completed carefully by all applicants seeking admission to any undergraduate program. Applications must be submitted prior to August 1 for fall admission; December 1 for spring admission; or May 1 for summer admission. Consideration of applications received after these deadlines will be in one of the special categories below.

A five dollar ( $\$ 5.00$ ) non-refundable application fee is required for all applicants "who have not previously applied to the University. Checks or Money Orders should be made payable to Memphis State University. Applications should be returned to the Admissions Office, Memphis State University, Memphis, Tennessee 38152. For detailed information regarding admission policies and requirements, refer to the appropriate pages of the current MSU Bulletin. (pages 22-24).

Transcripts, test scores and other academic credentials must be requested by the applicant from the issuing agency and forwarded directly to the Admissions Office. Copies of such credentials accepted from the applicant will be considered unofficial.

## REGULAR UNDERGRADUATE APPLICANTS

Freshman (no previous college). Request a copy of your high school record. If your high school graduation is through the General Educational Development (GED) program, have these scores forwarded to the office. You must submit scores earned on the ACT or SAT examination for consideration. If you have not been in school within the last six (6) months, you may request information on an entrance examination administered by the University.
Transfer Request an official copy of your academic record from each school in which you have enrolled. Upon receipt of your application, a personnel evaluation form will be sent to you. Complete this form and ask the student personnel office at the last school attended to return it to the MSU Dean of Students Office.

Applicants who have completed less than one year of college work must submit a high school record and ACT or SAT scores in addition to college transcripts. Concealment of previous college attendance may be cause for rejection or cancellation of admission.

## INTERNATIONAL APPLICANTS

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

## SPECIAL CATEGORY APPLICANTS

Designed for applicants who wish to take only a limited number of undergraduate courses and who are not presently seeking a degree at the University.

Unclassified (no previous college). Evidence of high school graduation from an approved high school is required for applicants not yet 18 years of age.

Unclassified (with previous college). Request a statement of academic standing from the Registrar at the last school attended.

Special Undergraduate (with college degree). Request a statement indicating the degree earned and date awarded from the Registrar at that college.

Audit only. Permission to audit courses must be obtained from the appropriate department chairman prior to submitting the application.
THE ADMISSIONS OFFICE is located in Suite 215 of the Administration Building. Office hours are 8:00 A.M. - 4:30 P.M. Monday through Friday. The telephone number for general admissions information is (901) 454-2101. After 4:30 P.M. and Saturday mornings call 454-2398.

## 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 tıme shall not affect the establishment of a residence.
2) "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 enrollment occasioned solely by the scheduling of the commencement and/or termination of the academic years, or appropriate portion thereof, of the public higher educational institutions in which such person enrolls.
PARAGRAPH 3. RULES FOR DETERMINATION OF STATUS.
(1) Every person having his or her domicile in this State shall be classified "in-state" for fee and tuition purposes and for admission purposes.
(2) Every person not having his or her domicile in this State shall be classified "out-of-state" for said purposes.
(3) The domicile of an unemancipated person is that of his or her parent.
(4) The domicile of a married person shall be determined independent of the domicile of the spouse

PARAGRAPH 4. OUT-OF-STATE STUDENTS WHO ARE NOT REQUIRED TOPAY 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 tutition. Such a person, while in continuous attendance toward the degree for which he or she is currently enrolled, shall not be required to pay out-of-state tuition if his or her parent thereafter is transferred on military orders.
(3) A person whose domicile is in a county of another state lying immediately adjacent to Montgomery County, or whose place of residence is within thirty (30) miles of Austin Peay State University shall be classified out-of-state but shall not be required to pay out-of-state tuition at Austin Peay State Universtty. 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 classified as such by the individual public higher educational institutions of this Statel
(5) Military personnel and their spouses stationed in the State of Tennessee who would be classified out-of-state in accordance with other provisions of these regulations will be classified out-of-state but shall not be required to pay out-of-state tuition. This provision shall not apply to military personnel and their spouses who are stationed in this State primarily for educational purposes.
PARAGRAPH 5. PRESUMPTION. Unless the contrary appears from clear and convincing evidence, it shall be presumed that an emancipated person does not acquire domicile in this State while enrolled as a full-time student at any public or private higher educational institution in this State, as such status is defined by such institution.
PARAGRAPH 6. EVIDENCE TO BE CONSIDERED FOR ESTABLISHMENT OF DOMICILE. If a person asserts that he or she has established domicile in this State he or she has the burden of proving that he or she has done so. Such a person is entitled to provide to the public higher educational institution by which he seeks to be classified or reclassified in-state, any and all evidence which he or she believes will sustain his or her burden of proof. Said institution will consider any and all evidence provided to it concerning such claim of domicile but will not treat any particular type or item of such evidence as conclusive evidence that domicile has or has not been established.
PARAGRAPH 7. APPEAL. The classification officer of each public higher educational institution shall be responsible for initially classifying students "in-state" or "out-of-state" Appropriate procedures shall be established by each such institution by which a student may appeal his or her initial classification.
PARAGRAPH 8. EFFECTIVE DATE FOR RECLASSIFICATION. If a student classified out-of-state applies for in-state classification and is subsequently so classified, his or her in-state classification shall be effective as of the date on which reclassification was sought. However, out-of-state tuition will be charged for any quarter or semester during which reclassification is sought and obtained unless application for reclassification is made to the admissions officer on or before the last day of registration of that quarter or semester.
PARAGRAPH 9. EFFECTIVE DATE. These regulations supersede all regulations concerning classification of persons for fees and tuition and admission purposes previously adopted by the State Board of Regents, and having been approved by the Governor, become effective May 1, 1975.

## FOR INFORMATION, CONTACT THE OFFICES LISTED BELOW:

ACADEMIC COUNSELING
FINANCIAL AID: HOUSING VETERAN AFFAIRS: READMISSIONS:

Scates Hall, Room 107, (901) 454-2062
Scates Hall, Room 312, (901) 454-2303 Scates Hall, Room 214, (901) 454-2295
Jones Hall, Room 106, (901) 454-2996
Administration Building Room 163, (901) 454-2674

Limited medical services are available in the University Health Center. If you wish to take advantage of these services, a health record is necessary. This form may be obtained in the Health Center.
MEMPHIS STATE UNIVERSITY DOES NOT DISCRIMINATE ON THE BASIS OF HANDICAP IN ADMISSION OR ACCESS TO ITS PROGRAMS.


APPLICATION FOR ADMISSION MEMPHIS STATE UNIVERSITY<br>Memphis, Tennessee 38152

DO NOT WRITE IN THIS SPACE
Application
Fee Receipt

APPLICANTS MUST COMPLETE EVERY ITEM ON THIS FORM; SIGN AND DATE THE APPLICATION; AND RETURN WITH A $\$ 5.00$ NON-REFUNDABLE FEE UNLESS PREVIOUSLY PAID.


If your name on your high school or college transcript is different from above, please print that name below.

Term applying for: (check only one)Fall $\square$ Spring 3-week Summer Summer Year Name of High School $\qquad$ Date of Graduation $\qquad$
Address

## City

State Zip Code

If you have earned the high school GED equivalent, indicate date earned $\qquad$ Have you taken a college entrance examination (ACT, SAT)?Yes No Mo Yr Have you registered and/or have you attended any college or university? $\square$ $\square$ YesNo Are you currently enrolled?Yes $\square$ No List ALL College experience including Memphis State. If none, write NONE


DO NOT WRITE IN THIS SPACE SCREEN 1
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(See pages 11-14 for list of majors. If undecided, write UNDECIDED.)
Do you consider yourself domiciled in Tennessee? (See definition on page 2) $\square$ Yes $\square$ No Do you intend to enroll as a full-time student? $\square$ Yes $\square$ No
If you are a veteran, when did you enter military service?
What was your home of record?
$\qquad$
From what state did you enter military service?
When did you or will you leave active duty?
The questions below are to be completed only by those who are on active military duty or those who are dependents of military personnel on active duty.
If you are on active duty, where are you stationed?
Are you a dependent of a person on active military duty $\square$ Yes $\square$ No
If "Yes", where is he or she stationed?
What state did you (or your sponsor) declare as home of record?
In some instances out-of-state students are not required to pay out-of-state tuition. If you have a question about your status, please review paragraph 4 of the Guidelines for the Classification of Students for Fee-Paying Purposes, or discuss your case with the Admissions Advisor for Residency.
Additional information may be required to make a determination as to the classification of a student for fee-paying purposes. In these cases additional information will be requested by the University.

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> I certify that none of the information on this form is false or has been withheld and that I understand that giving false information or withholding information may make me ineligible for admission or to continue my enrollment at Memphis State University. I further certify that I agree to all regulationsconcerning American History as set forth in the University Bulletin and the laws of the State of Tennessee.
Do Not Write Below This Line

| Residency Action: | Admission Action: Approved: $\qquad$ | Date: |
| :---: | :---: | :---: |
| Non-Res. |  |  |
| By: [ Date: | Not Approved |  |
| Restrictions: | REMARKS |  |
| Pending Items: |  |  |
| STATEMENT OF PROCEDURE |  |  |
| All credentials become the property of the University and cannot be forwarded or returned | NEEDS: |  |
| NOTE: Credentials will be maintained in active files for a 12 month period After this period. credentials will be relegated to inactive status and must be submitted again before an admissions decision can be made |  |  |

# Directory for Correspondence 

Inquiries will receive attention if addressed to the administrative offices below atMemphis 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 AffairsDirector of Finance
Graduate Studies Dean of Graduate Studies
Housing Director of University Housing
Pre-Professional Curricula Dean 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' AffairsPresident of the UniversityAdministration Building(901) 454-2234

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

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[^0]Administration Building - AD Alumni Center
Art Annex - AA Art Building - AB Athletic Office Brister Library - BL
Brister Library Tower Browning Hall
Campus School - CS Clement Humanities Bldg. - CL Winfield Dunn Bldg. WD Education Building - ED
Education Annex - EA


Maintenance Building
 Health Information Center Johnson Hall - JO Law Building - LW Life Sciences Building - LS Manning Hall - MN Meeman Journ. Bldg. Mitchell Hall - M


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Newport Hall
Panherson Building - PT
Physical Ed. Building - PB
Printing Services

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## MEMPHIS STATE UNIVERSITY

The Sixth-eighth session will open
August 24, 1979

Billy M. Jones, Ph.D., President

Cecil C. Humphreys, Ph.D., President Emeritus

## UNDERGRADUATE ISSUE 1979—1980 <br> MEMPHIS, TENNESSEE

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

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1980

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| OCTOBER |  |  |  |  |  |  |
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| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 |  |


| NOVEMBER |  |  |  |  |  |  |
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DECEMBER

| DECEMA |  |  |  |  |  |  |
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| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 |  |  |  |

## 1979-80 Calendar

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

## FALL SEMESTER 1979

## AUGUST 20, MONDAY through

## AUGUST 23, THURSDAY

Off-campus registrations (Exact dates, times, and locations to be announced prior to registration)

AUGUST 23, THURSDAY
Meeting of the new members of the University faculty, University Center Ballroom, 9 AM

AUGUST 24, FRIDAY
Meeting of the entire University faculty, University Ballroom, 9 A.M., followed by meetings by colleges and departments

AUGUST 25, SATURDAY
Registration-The Graduate School
AUGUST 27, MONDAY through
AUGUST 29, WEDNESDAY
Registration Week-For detalled dates and times see The Bulletin (Schedule of Classes) for the Fall Semester, 1979

AUGUST 30, THURSDAY
Classes meet as scheduled
SEPTEMBER 3, MONDAY
Holiday-Labor Day
SEPTEMBER 6, THURSDAY
Last day for adding courses
Last day for making application to the Dean of the Graduate School for degrees to be conferred in December, 1979. (File the "Intent to Graduate Card" and submit "Application for Master's Degree Candidacy" papers.)
SEPTEMBER 18 , TUESDAY
Last day for removing Summer Session "Incomplete" grades

OCTOBER 5, FRIDAY
Class Break (Classes will not meet)
OCTOBER 19, FRIDAY
Last day for all students to drop courses
Last day for all undergraduate students to withdraw from the University

NOVEMBER 5, MONDAY
Deadline for current students to clear financial obligations before packet holds will be placed upon their records

NOVEMBER 6, TUESDAY
Last day for all graduate students to withdraw from the University

NOVEMBER 21, WEDNESDAY
Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in May. 1980

Holiday-Thanksgiving

DECEMBER 6, THURSDAY
Study Day
DECEMBER 7, FRIDAY
Final Examinations begin
DECEMBER 15, SATURDAY
Commencement

## SPRING SEMESTER 1980

JANUARY 8, TUESDAY through
JANUARY 11, FRIDAY
Off-campus Registrations (Exact dates, times, and locations to be announced prior to registration)

JANUARY 12, SATURDAY
Registration-The Graduate School
JANUARY 14, MONDAY through
JANUARY 16, WEDNESDAY
Registration Week-For detailed dates and times see The Bulletın (Schedule of Classes) for the Spring Semester, 1980

JANUARY 17, THURSDAY
Classes meet as scheduled
JANUARY 23, WEDNESDAY
Last day for adding courses
Last day for making application to the Dean of the Graduate School for degrees to be conferred in May, 1980. (File the "Intent to Graduate Card" and submit
"Applicatıon for Master's Degree Candidacy" papers.)
FEBRUARY 5, TUESDAY
Last day for removing Fall Semester "Incomplete" grades

MARCH 7, FRIDAY
Last day for all students to drop courses
Last day for all undergraduate students to withdraw from the University

MARCH 16. SUNDAY through
MARCH 23, SUNDAY
Spring Holidays
MARCH 26, WEDNESDAY
Deadline for current students to clear financial obligations before packet holds will be placed upon their records

APRIL 2, WEDNESDAY
Last day for all graduate students to withdraw from the University

APRIL 16, WEDNESDAY
Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in August, 1980

MAY 1, THURSDAY
Study Day
MAY 2, FRIDAY
Final Examinatıons begın
MAY 10, SATURDAY
Commencement

## 1979-80 Calendar

## PRE-SUMMER SESSION 1980

MAY 12, MONDAY
Registration
MAY 13, TUESDAY
Classes meet as scheduled
Last day for late registration
MAY 21, WEDNESDAY
Last day for all students to drop courses
Last day for all undergraduate students to withdraw
MAY 23, FRIDAY
Last day for all graduate students to withdraw
MAY 30, FRIDAY
Final Examınations

## FIRST SUMMER TERM 1980

JUNE 3, TUESDAY through
JUNE 4, WEDNESDAY
Registration-For detailed dates and times, see The Bulletin (Schedule of Classes) for the Summer Session, 1980

JUNE 5, THURSDAY
Classes meet as scheduled
JUNE 9, MONDAY
Last day for adding First Term courses
Last day for making application to Dean of Graduate Studies for degrees to be conferred in August, 1980.

## JUNE 20, FRIDAY

Last day for all students to drop courses (First Term)
Last day for all undergraduate students to withdraw from the University (First Term)

## JUNE 24, TUESDAY

Last day for removing Spring Semester "Incomplete" grades

JUNE 26, THURSDAY
Last day for all graduáte students to withdraw from the
University (First Summer Term)
JULY 4, FRIDAY
Holiday-Independence Day
JULY 10, THURSDAY
Final Examinations

## SECOND SUMMER TERM 1980

JULY 14, MONDAY
Change of Course Day and Registration for Second Summer Term

JULY 15, TUESDAY
Classes meet as scheduled
JULY 16, WEDNESDAY
Deadline for current students to clear financial obligations before packet holds will be placed upon their records

JULY 17, THURSDAY
Last day to add or to register for Second Term courses
JULY 30, WEDNESDAY
Last day for all students to drop courses (Second Term) Last day for all undergraduate students to withdraw from the University (Second Term)

## JULY 30, WEDNESDAY

Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in December of 1980

## AUGUST 5, TUESDAY

Last day for all graduate students to withdraw from th University (Second Summer Term)
AUGUST 15, FRIDAY
Final Examinations
AUGUST 17, SUNDAY
Commencement

## EXTENDED SUMMER TERM 1980

## JUNE 3, TUESDAY through

JUNE 4, WEDNESDAY
Registration-For detailed dates and times, see The Bulletin (Schedule of Classes) for Summer Session, 1979

## JUNE 5, THURSDAY

Classes meet as scheduled
JUNE 9, MONDAY
Last day for making application to Dean of Graduate
Studies for degrees to be conferred in August, 1980

## JUNE 10, TUESDAY

Last day for adding Extended Term courses
JUNE 24, TUESDAY
Last day for removing Spring Semester "Incomplete" grades

JULY 4, FRIDAY
Holiday-Independence Day
JULY 9, WEDNESDAY
Last day for all students to drop courses (Extended Term) Last day for all undergraduáte students to withdraw from the University (Extended Term)

JULY 14, MONDAY through
JULY 15, TUESDAY
Mid-Term Break
JULY 16, WEDNESDAY
Deadline for current students to clear financial obligations before packet holds will be placed upon their records

JULY 23, WEDNESDAY
Last day for all graduate students to withdraw from the University (Extended Term)
JULY 30, WEDNESDAY
Last day for making application to dean of appropriate undergraduate college for degrees to be conferred in December, 1980
AUGUST 14, THURSDAY
Study Day
AUGUST 15, FRIDAY
Final Examinations
AUGUST 17, SUNDAY
Commencement

## NINE-WEEK TERM 1980

## JUNE 3, TUESDAY and

JUNE 4, WEDNESDAY
Registration for all summer terms-For detailed dates and times, see The Bulletin (Schedule of Classes) for the Summer Session, 1980

Students may also register June 5 and 6 in the Late Center for mine-week term courses only without paying late fees.

UNE 9, MONDAY
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, 1980. (File "Intent to Graduate Card" and submit "Application for Master's Degree Candidacy" papers.)

## UNE 11 , WEDNESDAY

## Last day for adding courses

UNE 24, TUESDAY
Last day for removing Spring Semester "Incomplete" grades

ULY 4, FRIDAY
Holiday-Independence Day
ULY 7, MONDAY
Last day for all students to drop courses (Nine-Week Term)
Last day for all undergraduate students to withdraw from the University (Nine-Week Term)

JULY 14, MONDAY
Change of course day and registration for Second Summer Term. Nine-Week Term classes will not meet.

## JULY 16, WEDNESDAY

Last day for all graduate students to withdraw from the University (Nine-Week Term)

Deadline for current students to clear financial obligations before packet holds will be placed upon their records
JULY 30, WEDNESDAY
Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in December, 1980

AUGUST 5, TUESDAY
Final examınations (Nine-Week Term)
AUGUST 17, SUNDAY
Commencement

Dead Week. Definition: The four day period preceding final examination, 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.


## GENERAL DESCRIPTION

## Goals of the University

The primary purpose of Memphis State University is to advance learning. The University is dedicated first to the traditional ideals of learning by focusing its attention and efforts upon the creation, transmission, and application of knowledge. Secondly, it is committed to goals that are utilitarian in (1) preparing students to serve in a variety of professions and occupations, and in (2) providing services to society for improving the quality of life and environment. Through instruction, research, and public service, the University proffers 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 activitiescontributing to the vitality of sound instruction and learning-not only advance knowledge but also apply knowledge to the improvement of life and the environment. These programs and activities are not mutually exclusive. 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 action of the Tennessee legislature, the institution was designated Memphis State University.

## Governing Body

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

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

## Organization

Memphis State University is comprised of six undergraduate colleges, The School of Law, The Graduate School, and the Office of Public Service and Continuing Education. The undergraduate colleges are 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, and The University College. There are six independent programs: AFROTC, Audiology and Speech Pathology, City and Regional Planning, International Studies, Nursing, and Urban Studies. The Office of Public Service and Continuing Education coordinates off-campus degree credit courses it metropolitan Memphis and regiona centers; CEU (Continuing Education Unit credit through conferences, institutes short courses, etc.; and non-credi courses designed to provide increased opportunities for the people of this areatd avail themselves of University facilities and services.

## Undergraduate Academic Programs

THE COLLEGE OF ARTS AND SCIENCES

| Department | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Anthropology | Anthropology |  | Bachelor of Arts (BA.) 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.) |
| Institute of Criminal Justice | Criminal Justice | (1) Corrections <br> (2) General Crimınal Justice <br> (3) Police | Bachelor of Arts (B.A) |
| Economics | Economics |  | Bachelor of Arts (BA) |
| English | English |  | Bachelor of Arts (BA.) |
| Foreign Languages | Foreign Languages <br> (With single <br> language concentration <br> from the first <br> five or multiple <br> language concentration <br> from total list) | (1) French <br> (2) German <br> (3) *Russian <br> (4) Spanısh <br> (5) Latin <br> (6) Greek <br> (7) Italıan | Bachelor of Arts ( $\mathrm{B} \mathrm{A}^{\text {a }}$ ) |
| Geography | Geography | (1) No Concentration OR <br> (2) Cartography <br> (3) Earth Science | Bachelor of Arts (B.A.) <br> Bachelor of Science (B.S) |
| History | History |  | Bachelor of Arts (B.A.) |
| Mathematıcal Sciences | Mathematical Sciences | (1) Mathematıcs <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 | Physics |  | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| Political Science | Political Science | (1) Political Science <br> (2) Public Administration | Bachelor of Arts (B.A) |
| Psychology | Psychology |  | Bachelor of Arts (B A) Bachelor of Scıence (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 collatera! foreıgn language concentration or a collateral major outside the Department of Foreign Languages

THE COLLEGE OF BUSINESS ADMINISTRATION

| 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, Real Estate | Finance |  | Bachelor of Business Administration |
|  | Insurance |  | Bachelor of Business Administration |
|  | Real Estate |  | Bachelor of Business Administration |
| Management | Management | (1) General Management <br> (2) Manpower Management <br> (3) Production Management <br> (4) Personnel Administration and Industrial Relations <br> (5) Quantitative Methods and Business Systems | Bachelor of Business Administration |
| Marketing | Marketing | (1) Advertısing (Marketıng Communications) <br> (2) Marketıng Management <br> (3) Retailing <br> (4) Sales <br> (5) Transportation and Logistics | Bachelor of Business Administration |
| Office Administration | Office Administration | (1) Secretarial <br> (2) Office Management | Bachelor of Business Administration |
| Interdisciplinary Program | International Business |  | Bachelor of Business Administration |

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 Journalism <br> (3) News Editorial <br> (4) The Magazine <br> (5) Press Photography <br> (6) 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.) |
|  | Applied Music |  | Bachelor of Arts (B.A.) |
| Theatre and Communication Arts | Theatre and Communication Arts | (1) General Speech <br> (2) Radio-TV-Film <br> (3) Rhetoric and Communication Arts <br> (4) Theatre | Bachelor of Arts (B.A.) |
|  | Theatre | (1) Performance <br> (2) Production | Bachelor of Fine Arts (B.F.A.) |

## 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 <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 Industrial Arts Education | 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 |  |

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


## Undergraduate Academic Programs

THE COLLEGE OF EDUCATION

| Department | Major (Concentration) | **ENDORSEMENTS |  | Degree Offered |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Major Endorsement | Minor Endorsement |  |
| Curriculum and Instruction (continued) | Secondary Education (continued) | 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 | Library Service 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 <br> *Drama | Bachelor of Science in Education (B.S.Ed.) |
| 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 <br> Secondary Physical Education | Elementary Physical Education <br> Secondary Physical Education |  |
|  | *Recreation and Park Administration |  |  |  |
| 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 <br> Economics Occupational Child Care Services) IOccupational Clothing Services) (Occupational Food Services) | Vocational Home Economics |  | Bachelor of Science in Education (B.S.Ed.) |
| Library Science |  |  | Library Service |  |
| Music <br> (College of Communication and Fine Arts) | Music Education (Instrumental Music) (School Music) | Music Education Instrumental Music School Music |  | Bachelor of Music Education (B.M.Ed.) |
| Special Education and Rehabilitation | Special Education | Special Education | Special Education | Bachelor of Science in Education (B.S.Ed.) |
|  | *Rehabilitation Education (No Concentration) OR (Rehabilitation of the Public Offender) (Vocational Evaluation) |  |  |  |

*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

THE HERFF COLLEGE OF ENGINEERING

| Department | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Civil Engineering | Civil Engineering* | (1) Environmental Engineering <br> (2) Foundation Engineering <br> (3) Structural Engineering <br> (4) Transportation Engıneering | Bachelor of Science in Civil Engineering (B.S.C.E.) |
| Electrical Engineering | Electrical Engineering* | (1) Solid State Electronics <br> (2) Energy Conversion <br> (3) Control Systems <br> (4) Computer Science <br> (5) Microwave Antenna Systems | Bachelor of Science in Electrical Engineering (B.S.E.E.) |

*Note: Accredited by the Engineer's Council for Professional Development.

## Undergraduate Academic Programs

THE HERFF COLLEGE OF ENGINEERING

| Department | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Geology | Geology |  | Bachelor of Science in Geology (B.S.G.) |
| Mechanical Engineering | Mechanical Engıneering* | (1) Design and Manufacturing <br> (2) Energy Systems <br> (3) Fluid Power Systems <br> (4) Mechanical Systems <br> (5) Aerospace Propulsion | Bachelor of Science in Mechanical Engineering (ES.M.E) |
| Engineering 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.) |
|  | Construction 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) Draftıng 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.) |
|  | Industrial Arts |  | Bachelor of Science in Technology (B.S.T.) |

Note: Accredited by the Engıneer'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 Nursing (B.S.N.) |
| Urban Studies | †Urban Studies |  | Bachelor of Arts (B.A) |
| **International Studies | $\dagger$ Latin American Studies |  | Bachelor of Arts (B.A) |
|  | International Relations <br> African Studies | (1) American Foreign Policy <br> (2) Western Europe <br> (3) Latin America <br> (4) Asia <br> (5) Soviet <br> (6) Sub-Saharan Africa <br> (7) Middle East and North Africa | Bachelor of Arts (B.A.) Certificate |

**See also the listing for the College of Business Administration.
$\dagger$ Collateral Major recommended

## Accreditation and Institutional Membership

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

American Association of Collegiate Schools of Business
American Association of State Colleges and Universities
American Association of University Women
American Bar Association
American Chemical Society
American College and University Concert Managers
American Council on Education for Journalism
American Psychological Association
American Speech and Hearing Association

Association of University Evening Colleges
Board of Law Examiners of Tennessee Council on Social Work Education
Engineers' Council for Professional Development
National Assocation of Schools of Music
National Association of Summer Sessions
National Commission on Accrediting
National Council for Accreditation of Teacher Education
National League of Nursing
National Opera Association

Oak Ridge Associated Universities
Southern Universities Student Government Association
Tennessee Board of Nursing
Tennessee Education Association

## FACILITIES AND SERVICES

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

## Evening Academic Services

R. WILSON WALKER, B.S., M.A., Ed.S., Dean
Administration Building, Room 165
The Evening Academic Services office provides the full range of academic services to evening and Saturday students normally available to regular day students. The services include academic advising; career, vocational, personal, and change of major counseling; registration assistance; transcript request and evaluations; course drop, add and withdrawals; financial aid, health service, and other referrals; admissions and readmissions counseling; orientation information; traffic and parking fees, decals and tickets; Notary Public services. The office is located in the Administration Building, Room 165.

## Library Facilities

The libraries of Memphis State University include the John Willard Brister Library and specialized collections in the Department of Chemistry, the Department of Mathematical Sciences, the Department of Music, the Herff College of Engineering, the School of Law, the Speech and Hearing Center, and the Bureau of Business and Economic Research. The total collection numbers more than 700,000 bound volumes and some 1,000,000 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.

The John W. Brister Library and the Library of the University of Tennessee Medical Units and the Burrow Library of Southwestern at Memphis have agreed to a shared use of the respective collections by the students, faculties, and staffs of the institutions.

## Computer Facilities

Computing support for the instructional program of the University and for faculty research is provided by Computer Services. The central computing system is a Xerox Sigma 9 computer which has 768 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

The Center for Instructional Service and Research provides services in the areas of learning facilitation and instructional improvement for all departments of the university. These services are performed by three divisions of the Center, as follow:

Learning Media Division provides a full array of media services, including film and cassette dissemination, use of educational technology equipment and maintenance of such equipment. In addition, facilities are available for the use of media items within the center by faculty and students. Equipment for production of audio-visual materials for instructional use also is available

Instructional Development and Support Division provides services to faculty members who wish to initiate innovations or changes to facilitate learning or improve instruction. These services include consulting and assistance with development of instructional material, participation in evaluation of experimental programs, and dissemination of information concerning optimizing learning and instruction. Faculty participation in instructional improvement is encouraged by a program of small grants that provide both resources and recognition for well conceived projects. An "experimental classroom" with educational technology equipment not generally available in other classrooms may be scheduled by faculty members for one or more class meetings.

Instructional Television Division provides a modern television studio for use in courses offered by various departments of the university and in production of instructional material in the video mode. The studio has full color capability both within the studio and by means of portable equipment outside the studio.

The Center is located in the John Willard Brister Library Building, room 115.

## University Development Program

The goal of the University Development Program is to generate private gift support for the University's academic programs, and functions to solicit contributions, gifts and bequests for the advancement of Memphis State University as an institution of excellence. Resulting gifts are utilized toward student scholarships, department 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

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 directory and faculty members and administrators appointed by the President. The editorial policy of the Press aims at the development and publication of scholarly books with a wide appeal for the academic community and welcomes works of regional interest on Tennessee and the Mid-South. In emphasizing scholarly works, the Press gives preference to those of fairly broad interest and application.

## CONTINUING EDUCATION AND GRADUATE PROGRAMS

## The Office of Public Service and Continuing Education

JOHN A. RHODES, JR., B.S., M.S., Ph.D., Vice President

360 Administration Building

## Instructional Services

The Office of Public Service and Continuing Education offers instructional services 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 to metropolitan Memphis and the West Tennessee region, as well as CEU (Continuing Education Unit) and non-credit activities.

## 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 of 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 non-credit programs in various occupational, technical, and general education fields. It assists state agencies, educational institutions, recognized civic organizations, professional groups, and departments of the University in the development and presentation of conferences so as to provide a wide variety of educational opportunities for adults throughout the Mid-South.

The staff of the office will assist 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 men and women who have a particular interest in a subject and a desire to learn more about that subject but who do not wish to engage in the formalities of formal admission, grades and examinations. The courses offered do not duplicate credit courses which are described in the Bulletin. Announcements of special interest, noncredit courses to be offered are issued before the beginning of each semester in a special brochure and through news media of the Mid-South. Schedules may be obtained by contacting the Division of Extended Programs, phone 454-2700.

## CENTER FOR NUCLEAR RESEARCH

The Center for Nuclear Studies conducts development programs in the fields of education and research for nuclear and other energy related fields. Through the endeavors of this Center, Memphis State

University was designed 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. The educational staff of the Center is composed of instructors with industrial experience and regular university faculty members from academic departments. 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 less than ten hours. These units are recorded on a permanent transcript for each individual. Participants may obtain a transcript of their participation upon request. 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 University.

## 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 motiva-
tion, supervision and management are offered for employees of local government agencies. The Human Services CoOp 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 college after a long absence or are beginning an academic program late in life. Thousands of residents of Memphis and the Mid-South are kept informed through special lecture series such as "Meet the Professor," now in its eleventh year. These special activities, plus others that are developed as needs arise, serve to bring the University closer to the entire community.

# THE GRADUATE SCHOOL 

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

Associate Vice President for Graduate Studies and Research

ALICA C. TILLEY, B.S., M.Ed., Ed.D., Dean for Graduate Studies Administration Building, Room 315

## Purpose

The Graduate School of Memphis State University is the center of advanced study and research within the University. The basic objectives of The Graduate School are (a) to preserve and disseminate knowledge; (b) to extend knowledge through research; and (c) to prepare men and women to assume a more responsible and useful role in a changing society.

## Admission

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

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

## Programs

A student may study in thirty-eight departments with various majors and areas of specialization. The Masters degree is offered by each of the thirtyeight departments. The Doctor of Phil-
osophy degree is offered through the departments of audiology and speech pathology, biology, chemistry, history, mathematical sciences, and psychology. The Doctor of Musical Arts is offered through the Department of Music. The Doctor of Education and Education Spe-
cialist degrees are offered through various departments within the College of Education. The Doctor of Business Administration degree is offered through the College of Business Administration.

GRADUATE ACADEMIC PROGRAMS

| Department | Major | Concentrations Within Major (Possible) | Degree Offered |
| :---: | :---: | :---: | :---: |
| Accountancy | Accounting |  | Master of Science (M.S.) |
|  | Business Administration | Accounting | Master of Business Administration (M.B.A.) |
| Anthropology | Anthropology | (1) Urban Anthoropology <br> (2) Medical Anthropology <br> (3) Public Archeology | Master of Arts (M.A.) |
| Art | Studio Art | (1) Painting <br> (2) Sculpture <br> (3) Printmaking <br> (4) Graphic Design <br> (5) Interıor Design | Master of Fine Arts (M.F.A.) |
|  | Art | (1) Art History <br> (2) Art Education | Master of Arts (M.A.) <br> Master of Arts in Teaching (M.A.T.) |
| Audiology and Speech Pathology | Audiology and Speech Pathology | (1) Audiology <br> (2) Speech Pathology | Master of Arts (M.A.) <br> Doctor of Philosophy (Ph.D.) |
| Biology | Biology | (1) Botany <br> (2) Cell Biology <br> (3) Invertebrate Zoclogy <br> (4) Microbiology <br> (5) 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) Biochemisty | Master of Science (M.S.) Doctor of Philosophy (Ph.D.) |
| Civil Engineering | Civil Engineering | (1) Environmental Engineering <br> (2) Foundation Engineering <br> (3) Structural Engineering <br> (4) Transportation Engineering | Master of Science (M.S.) |
| Departments of the College of Business Administration | Business Administration | (1) Accounting <br> (2) Finance, Insurance, Real Estate <br> (3) Law <br> (4) Management <br> (5) Marketing <br> (6) Economics | Master of Busıness Administration (M B.A.) |
|  |  | (1) Accountancy <br> (2) Applied Economics <br> (3) Finance <br> (4) Management <br> (5) Management Science <br> (6) Marketing | Doctor of Business <br> Administration (D.B.A.) |
| Curriculum and Instruction | Curriculum and Instruction |  | Master of Science (M.S.) |
|  | Elementary Education | (1) No Concentratıon or <br> (2) Early Childhood Education | Master of Education (M.Ed.) |
|  | Reading |  | Master of Education (M.Ed.) |
|  | Secondary Education |  | Master of Education (M.Ed.) Master of Arts in Teaching (M.A.T.) |
|  | Adult Education |  | Master of Education (M.Ed.) |
| Interdepartmental Programs (Education) | Curriculum and Instruction | Music Education | Education Specialist (Ed.S.) |
|  |  | No Concentration or <br> (1) Elementary Education <br> (2) Reading <br> (3) Secondary Education <br> (4) Higher Education <br> (5) English Education <br> (6) Scıence Education <br> (7) Business Education <br> (8) Social Studies Education <br> (9) Mathematics Education <br> (10) Special Education and Rehabilitation <br> (11) Cultural Foundations <br> (12) Educatıonal Psychology <br> (13) Research Methodology and Statistics | Education Specialist (Ed. S.) <br> Doctor of Education (Ed.D.) |

## GRADUATE ACADEMIC PROGRAMS

| Department | Major | Concentrations Within Major (Possible) | Degree Offered |
| :---: | :---: | :---: | :---: |
| Distributive Education | Distributive Education |  | Master of Education (M.Ed.) |
| Economics | Economics |  | Master of Arts (M A.) |
|  | Business Administration | Economics | Master of Business <br> Administration (M.B.A.) |
| Educational Admınistration and Supervision | Educational Admınistration and Supervision | (1) General | Master of Science (M.S.) |
|  |  | (2) Elementary <br> (3) Secondary | Master of Education (M.Ed.) |
|  |  | (1) Superintendency <br> (2) Elementary <br> 13) Secondary | Education Specialist (EdS.) |
|  |  | (4) Higher Education | Education Specialist (Ed.S.) <br> Doctor of Education (Ed.D.) |
|  |  | No Concentratıon | Doctor of Education (Ed.D.) |
| Electrical Engıneering | Electrical Engıneerıng | (1) Solid State Electronics <br> (2) Automatic Control Systems <br> (3) Engıneering Computer Systems <br> (4) Microwave and Antenna Systems | Master of Science (M.S.) |
| Engineering Technology | Technical Education | (1) Architectural <br> (2) Construction <br> (3) Draftıng and Design <br> (4) Electronics <br> (5) Manufacturing <br> (6) Industrial Arts | Master of Science (M S.) |
| English | English |  | Master of Arts (M.A) |
| Finance, Insurance, | Finance |  | Master of Science (M.S.) |
| Real Estate | Business Administratıon | Finance, Insurance, Real Estate | Master of Business <br> Administration (M.B.A.) |
| Foreign Language | Romance Languages | French Spanish | Master of Arts (M.A) |
| Geography | Geography |  | Master of Arts (M.A.) Master of Science (M S ) |
| Geology | Geology |  | Master of Science (M S ) |
| Guidance 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 ( $\overline{\mathrm{M} . \mathrm{S}}$.) |
|  | Personnel Services | (1) Counseling and Guidance | Education Specialist (Ed.S.) |
|  |  | (2) Student Personnel Services | Doctor of Education (Ed.D.) |
| Health, Physical Education and Recreation | Health, Physical Education and Recreation | (1) School Health | Master of Education (M Ed.) |
|  |  | (2) Community Health | Master of Science (M S ) |
|  |  | (3) Physical Education | Master of Education (M.Ed.) |
|  |  | (4) Recreation | Master of Science (M S ) |
| History | History |  | Master of Arts (M.A.) <br> Doctor of Philosophy (Ph D.) |
| 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 |  | Master of Science (M. S.) |
|  | Business Administration | Management | Master of Business Administration (M.B.A.) |
| Marketing | Marketing |  | Master of Science (M.S.) |
|  | Business Administration | Marketing | Master of Business <br> Administration (M.B.A.) |
| Mathematical Sciences | Mathematics | (1) General Mathematics <br> (2) Statistics <br> (3) Computer Sciences | Master of Science (M.S.) |
|  |  | (1) College Teaching <br> (2) Applied Statistics | Doctor of Philosophy (Ph.D.) |

GRADUATE ACADEMIC PROGRAMS

| Department | Major | Concentrations Within Major (Possible) | Degree Offered |
| :---: | :---: | :---: | :---: |
| Mechanical Engineering | Mechanical Engineering | (1) Desıgn and Manufacturing <br> (2) Energy Systems <br> (3) Fluid Power Systems <br> (4) Mechanical Systems <br> (5) Aerospace Propulsion | Master of Science (M.S.) |
| Music | Music | (1) Applıed 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> (ر) Percussion <br> (k) Harpsichord <br> (I) Opera and Conductıng <br> (m) Opera Production and Directing <br> (2) Sacred Music <br> (3) Music Theory <br> (4) Music History <br> (5) Orff-Schulwerk | Master of Music (M Mu.) |
|  |  | (6) 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 | Business Education and Office Management | Business Education | Master of Education (M Ed.) Master of Science (M.S.) |
| Philosophy | Philosophy |  | Master of Arts (M.A.) |
| Physics | Physics |  | Master of Science (M.S.) |
| Planning | City and Regional Planning | (1) Developmental Planning <br> (2) Comprehensive Physical Planning <br> (3) Natural and Environmental Resources Planning | Master of City and Regional Planning (M.C.R.P.) |
| Political Science | Political Science |  | Master of Arts (M A ) |
|  | Public Administration | (1) Urban Management and Planning <br> (2) Comparative and Development Administration <br> (3) General <br> (4) Health Services Administration <br> (5) Public Policy Analysis/ Program Evaluation <br> (6) Criminal Justice Administration | Master in Public Administration (MPA.) |
| Psychology | Psychology | (1) General Psychology | Master of Science (M S.) |
|  |  | (2) Psychological Services | Master of Arts (M A.) |
|  | School Psychology |  | Master of Arts (M.A.) |
|  | Psychology | (1) Clinical Psychology <br> (a) Neuropsychology <br> (b) Behavior Management <br> (2) Experımental Psychology <br> (a) Biopsychology <br> (b) Learning Behavior Analysis <br> (c) Sensory Processes <br> (d) Neuropsychology <br> (e) Behavior Management <br> (1) Human Developmental Retardation <br> (g) Industrial Psychology <br> (h) Personality Cognitive Processes <br> (1) Social Psychology | Doctor of Philosophy (Ph.D.) |
| Sociology and Social Work | Sociology |  | Master of Arts (M A.) |
| Special Education and Rehabilitation | Special Education and Rehabilitation | (1) Educationally Handicapping Conditions <br> (2) Pre-School Education of Exceptional Children <br> (3) Multihandicapped | Master of Education (M Ed.) |
|  |  | (4) Vocatıonal Rehabilitatıon | Master of Science (M.S.) |
| Theatre and Communication Arts | Theatre and Communication Arts <br> Theatre | (1) Radio-TV-Film <br> (2) Rhetoric and Communication Arts <br> (3) Theatre | Master of Arts (MA.) <br> Master of Fine Arts (M F.A.) |

THE SCHOOL OF LAW<br>NICHOLAS L. WHITE, J.D. Dean<br>Room 209. Law School Building

## Program

The School of Law offers a program of instruction leading to the degree of Juris Doctor. A student may enroll in a regular program, attending classes during the day, or in an extended program, attending 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 that 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 School of Law is on a selective basis. To be eligible for admission, a student must have received a bachelor's degree in an appropriate discipline from an accredited college or university and must have made a satisfactory score on the Law School Admission Test administered by the Educational Testing Service, Princeton, New Jersey. One hundred semester credit hours or their equivalent of course work must have been earned in theory courses
approved by The School of Law. Questions concerning which course credits are acceptable and additional admissions requirements should be directed to the Dean of The School of Law or the Associate Dean of Admissions.

Admission to advanced standing may be given to a student who qualifies for admission and who is eligible for reenrollment in the law school in which his previous work has been taken, provided that such school is on the approved list of the American Bar Association.

The regulations and policies of The School of Law are set out in greater detail in a separate bulletin. Applications for admission must be made on forms supplied by The School of Law. Inquiries should be addressed to the Dean of The School of Law or to the Associate Dean of Admissions in the office of Admissions and Records.


## ADMISSION TO THE UNIVERSITY

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

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. All applications must be accompanied by a five-dollar ( $\$ 5.00$ ) nonrefundable 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.

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

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

## ADMISSION OF FRESHMEN AS REGULAR UNDERGRADUATES

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. Graduates of high schools outside of Tennessee must rank in the upper one-half of their graduation class or reside with in a 150 -mile radius of the University. Exceptions may be made only if the student has above average entrance examination scores and there are other factors which indicate that the applicant will be capable of doing satisfactory academic work.
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. Under special circumstances, applicants 17 years of age may be considered for admission with a minimum average G.E.D. score of 45 .

## 2. Entrance Examination

Applicants must submit acceptable scores earned on the test administered by the American College Testing Program. These scores should be furnished directly from A.C.T. Applicants who are not recent high school graduates may request an entrance examination administered by the University. Under special circumstances, SAT scores will be considered. Special testing arrangements may be made for handicapped persons.
3. Age

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

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

## ADMISSION OF TRANSFER STUDENTS AS REGULAR UNDERGRADUATES

An applicant who has attended any accredited or approved college or university must apply as a transfer student. The established deadlines for applying are: August 1 for the fall semester; December 1 for the spring semester, and May 1 for the summer session. The applicant will be required to request that a transcript from each college attended be sent directly to the Admissions Office.

Admission will be granted only to a student who has honorable dismissal from an accredited institution and whose cumulative quality point average meets the required minimum cumulative GPA on the sliding scale retention policy. See page 43 .

A transfer student who has failed his work at another institution and is not entitled to continue there will not be admitted to the University except under unusual circumstances.

A transfer applicant with less than two semesters in full-time residence (or less than 30 semester hours of part-time work) must meet the admission requirements of beginning freshmen in addition to having a satisfactory college record.

Transfer applicants not meeting the University minimum quality point average requirement must submit acceptable ACT or SAT scores or must take an examination administered by the University and earn an acceptable score.

Transfer students who have been approved for admission will be entered on academic probation when (1) the quality point average is less than 1.50 in the last term of enrollment or, (2) when not in good academic standing at the last school attended or, (3) when the quality point average is below that outlined on the sliding scale retention policy.

A transfer student who is denied admission may have his application reconsidered after an appropriate period of time has elapsed. Consideration will not normally be given until the next regularly scheduled term.

## ADMISSION OF INTERNATIONAL STUDENTS AS REGULAR UNDERGRADUATES

Memphis State University is authorized under Federal law to enroll nonimmigrant, alien students on "F-1" student visas. Applications and all supporting documents must be received in
the Admissions Office at least 120 days prior to the beginning of registration for the intended term of entry. The established deadlines for applying are: May 1 for the fall semester, September 15 for the spring semester, and February 1 for the summer session.

Memphis State University believes that the presence of a balanced representation of International Students on campus will enrich the educational environment of all students

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

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

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

## Requirements

1. All International applicants whose native tongue is 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., Education Testing Service, Princeton, New Jersey 08540, U.S.A., requesting information and registration forms. In addition, all freshmen international students should take the Scholastic Aptitude Test (S.A.T.) or its equivalent. The student should write S.A.T., C.E.E.B., Education Testing Service Box 592, Princeton, New Jersey 08540, U.S.A., for examination information. Satisfactory scores on both the S.A.T. and the T.O.E.F.L., or their equivalent, are required for admission.
2. A student on an F-1 visa should supply, on the form provided by

Memphis State University, sufficient evidence of financial support for himself and for all members of his family who will accompany him to Memphis. This requires that he certify that his intent is to attend the University full-time and that no employment will be required.
3. An International applicant must be in good physical health as certified by a licensed physician.
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 registration 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 readmission to the University must meet the deadlines stated above.
8. The International student must become familiar with the regulations of the Immigration and Naturalization Service and assume responsibility for complying with these regulations

## SPECIAL CATEGORY 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 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.

## 1. 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 coursesand 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.)

## 2. Unclassified Students:

The student who wishes to enter the university and earn a limited amount of regular college cređit may do so by applying for admission as an unclassified student and meeting one of the two conditions listed below:
a. A student currently/previously enrolled in an accredited college or university must submit evidence of eligibility to reenroll. 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 a special undergraduate student.)
b. 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.

## 3. 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 provid ed the following criteria are met.
a. The applicant must be at least 16 years of age before the end of the calendar year in which the applicant desires to enroll.
b. A minimum high school cumulative grade point average of 3.00 on a 4.00 scale
c. An above average score on the examination administered by the American College Testıng Program.
d. A recommendation from the applicant's high school principal or guidance counselor
e. Any other admission criteria established by the department which offers the course selected by the applicant.

## 4. Audit Students:

Persons who are not enrolled for credit courses may register for audit courses with the approval of the office of Admissions and the appropriate department chaırman. 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. 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 tuitıon charges, maintenance fees, student activity fees, or registration fees. Admission to AUDIT will be limited on an individual classroom basis according to space availabılity.

## 5. Courses for Senior Citizens and Students with a Total Disábility:

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

## 6. Former Students:

Former students who wish to return to the University in the same category as they previously attended 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. Health Services: Limited medical services are available in the University Health center. If you wish to take advantage of these services, a health record is necessary.
2. 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 that " 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. (See page 43. for the method of computing quality point averages.)

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.
3. College Level Examination Program (C.L.E.P.): Credit may be obtained, in certain instances, from the tests administered by the College Level Examination Program. Students interested in this credit should contact the Academic Counseling Unit or the Dean for Evening

Academic Services for specific information.
4. 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 semesters 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 United States Armed Forces Institute or other service schools. The maximum amount of credit accepted for applicable D.A.N.T.E.S. courses and/or correspondence and extension courses is 33 semester hours, and 20 semester hours for selected service schools. (This restriction does not apply to credit accepted by the University College.) An official evaluation of service credit is not made until a student enrolls as a regular undergraduate student. Credit awarded for completion of selected service schools will be governed by the recommendations outlined in the current Guide to the Evaluation of Educational Experience in the Armed Services.
5. Noncollegiate Sponsored Instruction: Credit may be obtained for applicable courses completed through certain non-collegiate sponsored instruction as recommended in the current $A$ Guide to Educational Programs in Noncollegiate Organizations. No more that 20 semester hours credit for service schools and/ or noncollegiate sponsored programs will be allowed. The Transfer Affairs section of the Admissions Office should be contacted for further information.
6. Residency Classification: All determinations concerning the classification of students as in-state or out-of-state for fee-paying and other purposes are made in the Office of Admissions and Records. The determinations are based on the regulations and guidelines of the State Board of Regents. Copies of the guidelines and regulations used in the classification of students for fee-paying purposes are available in the Office of the Admissions Advisor for Residency. If, for any reason, there is a question about a student's residency classification for feepaying purposes, it is his or her responsibility to check with the Admissions Advisor for Residency.


3 Fees and Charges

## EXPENSES AT UNIVERSITY

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

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

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

## Application Fee

Each student submitting an application for admission to the University must pay, at the time he submits his first application, a one-time non-refundable fee of $\$ 5.00$.

## Maintenance Fee

All students, whether resident or nonresident, pay a maintenance fee. Undergraduate fees are $\$ 20.00$ per semester hour, not to exceed a maximum of $\$ 224.00$. 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 $\$ 23.00$ per semester hour, not to exceed a maximum of $\$ 244.00$. 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 $\$ 20.00$ for maintenance fees and an additional $\$ 39.00$ for nonresident 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.

## Tuition

Stadents classified as non-residents are charged an additional $\$ 468.00$ per semester (for full-time students) or $\$ 39.00$ per semester hour (for part-time students). (Note that tuition is in addition to the maintenance fee.)
The Office of Admissions and Records is charged with the responsibility of assigning a residency classification to each student using regulations provided by the Board of Regents. The student may appeal the decision to the Committee on Residency. Residency regulations of the Board of Regents and information on appeals procedures are available in the Office of Admissions and Records.

## University College Fees

In addition to their $\$ 5.00$ application fee, students who apply to the University College must pay a screening fee of $\$ 15.00$, which is non-refundable. If accepted into the University College, the student must pay a non-refundable contract-advising fee of $\$ 25.00$.

Students who apply for credit for experiential learning will pay $\$ 15.00$ per credit hour granted after evaluation of their learning and assignment of credit. For those students who are enrolled under a group contract, no more than a maximum fee of $\$ 90.00$ will be assessed for credits assigned under the terms of the group contract.

## Courses in Applied Music

The fee for applied music shall be $\$ 25.00$ per semester for each one-half hour lesson.

## Refund of Fees

FALL AND SPRING SEMESTERS: If a student withdraws from the University within fourteen calendar days from the beginning of classes for the fall and spring terms, a refund will be made of $75 \%$ of his maintenance fee, out-of-state tuition, and music fee (if any). The same refund schedule applies to students who drop to an hourly load below full-time. The applicable percentage then applies to the difference between the new fees calculated on an hourly basis and actual
fees paid. A 100\% refund will be made for courses cancelled by the University. All other fees are non-refundable.

SUMMER: Students are requested to register for all three terms of the summer session at the beginning of the first term, if possible. If a student withdraws from the University within four days (excluding Saturday and Sunday) from the beginning of classes for the first term, a refund is made of 75\% of the maintenance fee and tuition or music fee (if any) applicable to first term classes. If a student withdraws from second term classes any time before second term classes begin, a full refund of maintenance fee and tuition or music fee (if any) applicable to the second term will be made. This refund will be reduced to $75 \%$ if the student withdraws within four days (excluding Saturday and Sunday) after beginning of classes for the second term

Withdrawal or drops from extended term courses will be refunded on the basis of $75 \%$ during the first seven days (excluding Saturday and Sunday) instead of four, as in the first and second summer terms.

A full (100\%) refund of fees will be made for courses cancelled by the University.

The University refund policy is based entirely upon the official date of the withdrawal or change of course which would result in a refund. Refunds beyond the specified date cannot be made for reasons such as employment conflicts, health or medical problems, or moving out of town.

## Residence Halls

Charges for rooms in University residence halls are indicated below. For information concerning application for rooms, see page 36 .

The following policy covers residence hall contracts, deposits, and rental fees:

1. All residence hall contracts are for the academic year or for the entire summer session.
2. Each application for residence hall accommodations must be accompanied by a deposit of $\$ 50.00$. This deposit shall remain on file with the University throughout the occupancy of housing facilities, and is reduced by the amount of any unpaid damages or any other financial obligation due to the University at the time residence hall space is vacated.
3. An initial residence hall reservation request must be confirmed by a properly negotiated contract with deposit.
4. Students who wish to retain their room and hall priority for subsequent semesters must notify the housing office in writing by July 1 for the fall semester,
y December 1 for the spring semester, nd by May 1 for the summer sessions.
5. A housing contract can be cancelled nd a refund of the $\$ 50.00$ deposit made nly if:
(1) The institution is notified a minimum of 14 calendar days prior to the first official day of registration.
(2) The student is prevented from entering the University because of medical reasons confirmed in writing by a licensed physician.
(3) Residence hall space is not available.
Full refund will be made in the case of death
6. Refunds of residence hall rent after registration will be prorate on a weekly calendar basis 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. Full refund will be made in the case of death.
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 narried students located on South Campus approximately one mile from the central part of the campus. These are 70 wo-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: one bedroom apartment - $\$ 120.00$; two bedroom apartment - $\$ 145.00$. 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 application 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 $\$ 4.00$ to $\$ 4.75$ 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 $\$ 3.50$ 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

| Dormitory | Semester | Pre-Summer Session | $\begin{aligned} & \text { First } \\ & \text { Summer } \\ & \text { Term } \end{aligned}$ | Second <br> Summer Term | Extended <br> Summer Term | Nine Week Term | occupants should ask for a special resident decal when registering their automobiles. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Browning Hall $\ddagger$ | \$225 | 42 | 84 | 70 | 154 | 126 | Identification Cards |
| Browning Hall + | 300 | 56 | 112 | 94 | 206 | 168 | The University issues to each student an |
| Hayden Hall $\ddagger$ | 240 | 45 | 90 | 75 | 165 | 135 | identification card, which bears his |
| Hayden Hall+ | 315 | 59 | 118 | 98 | 216 | 177 | identifation card, which bears his |
| McCord Hall $\ddagger$ | 225 | 42 | 84 | 70 | 154 | 126 | photograph, social security number, and |
| - Newport $\ddagger$ | 330 | 62 | 124 | 103 | 227 | 186 | certification that he is enrolled as a |
| -Rawls Hall $\ddagger$ | 280 | 53 | 106 | 88 | 194 | 155 | student in the University. The card is |
| -Rawls Hall + | 365 | 68 | 136 | 114 | 250 | 204 | required for registration, the borrowing of |
| -Richardson Towers $\ddagger$ | 330 | 62 | 124 | 103 | 227 | 186 | required for registration, the borrowing of |
| -Robison Hall $\ddagger$ | 280 | 53 | 106 | 88 | 194 | 159 | library books, and other purposes. The |
| -Robison Hall ${ }^{+}$ | 365 | 68 | 136 | 114 | 250 | 204 | card remains the property of Memphis |
| Smith Hall $\ddagger$ | 245 | 46 | 92 | 77 | 169 | 138 | State University and will be surrendered |
| Smith Hall + | 325 | 61 | 122 | 102 | 224 | 183 | upon request of a University official. A |
| West Hall $\ddagger$ | 245 | 46 | 92 | 77 | 169 | 138 | upon request of a University official. A |
| West Hall + | 325 | 61 | 122 | 102 | 224 | 183 | student will be charged $\$ 10.00$ to replace |
| +Single Room <br> $\ddagger$ Double Room <br> - Air Conditioning |  |  |  |  |  |  | lost. A student will be charged $\$ 2.00$ to make any change in data on his card. |

be charged $\$ 10.00$ for any late registration following the official registration period.

## Adding and Dropping Courses

A fee of $\$ 5.00$ will be charged for each change of course form processed, regardless of the number of course or section changes included on the form.

## Transcripts

There is no fee for transcripts. However, the student will be charged $\$ 1.00$ for each official transcript over the maximum of five (5) per request. Transcripts are issued only at the request of the student in person or by letter. No transcript will be provided for a student who has any unfulfilled obligation 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. Proof of ownership must be presented when registering the vehicle. 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 required for registration, the borrowing of library books, and other purposes. The card remains the property of Memphis State University and will be surrendered upon request of a University official. A student will be charged 10.00 to replace 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 on 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. If a check given in payment of registration fees is returned, the fee is assumed to be unpaid and charges for late registration will be assessed. 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 connected 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

| Undergraduate: | Per Hour (Summer and Part-Time) |  <br> Spg. Sem <br> Per Sem. <br> (Full-Time |
| :---: | :---: | :---: |
| Resident-Maintenance | \$20.00 | \$224.00 |
| Non-Res -Tuition | 39.00 | 468.00 |
| Non-Res. Total | 59.00 | 692.00 |
| Graduate and Law: |  |  |
| Res -Maıntenance | \$23.00 | \$244.00 |
| Non-Res-Tuition | 39.00 | 468.00 |
| Non-Res Total | 62.00 | \$712.00 |
| Student Housing: <br> (See listing, page 27.) |  |  |
| Applied Music Courses: <br> (See page 26.) |  |  |
| Incidental Charges: |  |  |
| Adding or dropping cours | s, per form | \$ 5.00 |
| Application for admission, first application 5.00 |  |  |
| Automobile Registration, per automobile 5.00 |  |  |
| Diploma, payable once |  | 20.00 |
| Late registration after official registration period |  |  |
| Transcripts, per copy after first five copies per request |  |  |
| Air Force ROTC activity fee, per year 5.00 |  |  |
| School and College Ability Test 5.00 |  |  |
| Residual American College Test |  |  |
| Orientation Services <br> (Pre-College Counseling) 10.00 |  |  |
| P.E. locker and towel, per semester 3.50 |  |  |
| Deposits: |  |  |
| Air Force ROTC Uniform (refundable less charge or damage) | for loss | \$10.00 |
| (refundable less charges, upon termination of occupancy) |  |  |
| Laboratory breakage |  |  |
| Music locker deposit, per semester |  | $3.00$ |

Additional Charges:
The University reserves the right to increase the charges listed herein or to add new ones whenever such increases or additions are found to be necessary


4 Student Life and Financial Aid

## STUDENT DEVELOPMENT

The Department of Student Development, a component within the Division of Student Education Services, focuses attention on student goal clarification, implementation, and attainment. Five major areas within the department include: 1) Center for Student Development, 2) Health Services, 3) Student Aid, 4) Placement, and 5) Veterans Affairs. 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 new facility providing personal, academic, and career resources for MSU students. By emphasizing developmentally oriented counseling and programming, the Center strives for maximum contact with the University community. The Center offers individual and group counseling, outreach programming, consultation and training for individuals and campus organizations. Assistance and counseling are available through the various Center components: academic counseling (formerly General Advising Center), career counseling, personal counseling (formerly University Counseling Center), testing center, and Educational Support Program.

## Personal Counseling

(Formerly University Counseling Center) Scates Hall, Room 111
The personal counseling component provides students with the opportunity to discuss and explore, in confidence, any concerns and feelings that are of importance. Staffed by professional psychologists and counselors, the personal counseling unit is committed to help students grow in self-understanding so that they may use their assets effectively and move toward meaningful future goals. The staff consists of psychologists and counselors who are professionally trained and experienced in working with a wide variety of student concerns through individual and group counseling, testing, programs and workshops, and referral to additional service centers on and off campus.

## Academic Counseling <br> (Formerly General Advising Center) Scates Hall, Room 107

All new freshmen students admitted to Memphis State University as well as transfer and readmitted students without
an academic major are assigned to an academic counselor. The purpose is to provide academic counseling which will prepare students for enrollment in one of the degree-granting colleges once they have chosen an academic major. The counselor is available to discuss with the student the many academic programs offered by Memphis State University and to acquaint him with the requirements of the various programs.

The academic counseling unit of the Center for Student Development provides an atmosphere in which a student can freely explore educational goals with the assistance of a counselor who can provide information and referral for faculty assistance, career counseling, vocational testing, and help with any personal problems related to academic success and campus adjustment.

## Career Counseling <br> Scates Hall, Room 104

Career counseling affords students an opportunity to explore career options, obtain information relating academic majors to career choices, evaluate employment outlook information, match education to careers, reinforce decisionmaking skills and develop realistic career goals. Career planning assistance and programs are available to individuals and special interest groups.

> The Testing Center
> Scates Hall, Room 103

The testing center provides testing services for University and professional school admissions purposes. A variety of tests including the ACT Test, Miller Analogies Test, Graduate Record Exam, Law School Admissions Test, and Graduate School Foreign Language Test are administered under the auspices of the testing center.

## Educational Support Programs Dunn Building, Room 143

The Educational Support Programs provide assistance to students in developing and improving the skills necessary for a successful academic experience. In addition to tutorial programs in reading, English composition, mathematics, foreign language, and study skills, counseling is also available for persons wishing to discuss educational and personal concerns.

## Health Service

The University maintains a modern health service which is staffed by qualified doctors of medicine and registered nurses, offering out-patient treatment only. Students are financially responsible for hospitalization or medical care beyond that offered by the Health Service. Students are urged to make
arrangements for such care, in consultation with the Health Center staff.

Health Service Record Each undergraduate student is required, as a condition of eligibility for health services to file a medical history with the Health Services. The required health service record form is provided by the Admissions Office and the Health Center.

## Eligibility

All undergraduate students registered for at least six hours of credit, graduate, law, and part-time students who have filed with the Health Center the required Health Service forms and who have validated indentification cards are eligible to receive services.

## Emergency Service

Emergency service will be afforded in the event of any campus related emergency situation. Except in cases of emergency, students without a health form on file in the Health Center will not be treated

## Student Insurance

Since major care is occasionally needed on emergency basis and on short notice, students are urged to discuss this eventuality with their parents. Health and Accident Insurance is issued by a private insurance company authorized and approved by the University. Details concerning this insurance are available at the time of registration and from the office of the Assistant Dean of Students.

## Student Aid Office

The University Student Financial Aid Office, located in Scates Hall, 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 students must apply for the Basic Educational Opportunity Grant Program. All forms may be obtained through the Student Aid Office upon request. The ACT Family Financial Statement is also available in most high school guidance offices.

The preferred application deadline for all applications is April 1. Applications are acknowledged as they are received, and award notices are mailed around July 1. All awards are made on an academic year basis. All students must submit a new application each year.

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

## SCHOLARSHIPS

The University awards several hundred scholarships each year in varying amounts from $\$ 50$ to $\$ 2,000$. Most scholarships awarded cover the amount of registration fees, but the stipend is determined by the student's need for financial assistance. Scholastic achievement, personal and leadership qualities and need are the factors utilized in evaluating applicants and determining the value of the scholarship offered

Scholarships are awarded for the academic year and are not available for summer school. Freshmen applying for scholarships must rank in the top twentyfive percent of their high school graduating classes. Currently enrolled students must have at least a 2.5 overall grade point average. Scholarships are awarded on an academic year basis. Each student wishing scholarship consideration must submit an application each academic year. Information on special scholarships may be obtained from the Student Aid Office.

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

## Alumni Váledictorian Scholarship

The Memphis State University Alumni Association provides a $\$ 500$ Valedictorian Scholarship for the top scholars from each of Tennessee's accredited or state approved high schools and the State's ten public community colleges. The qualifications for this program are that the recipients must rank number one in their class and meet the admission requirements of the University. The award is for one year and is based solely on academic standing.

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

## Cecil C. Humphreys Presidential Scholars Program

Twelve $\$ 8000$ four-year scholarships are awarded annually to entering freshmen of the highest academic attainment without regard to financial need. Scholars are selected on the basis of the following criteria:

1. An ACT score of 28 or higher, or the corresponding SAT score.
2. High school transcript.
3. Excellence of performance in an area of interest
4 Quantity and quality of extra curricular and extra-mural activites.
4. Evidence of sound character, work habits, and attitude.
The scholarship program is funded by contributions to the Memphis State University Annual Fund from Alumni and other friends and by Athletic Department revenues. The scholarship program is named for Dr. Cecil C. Humphreys, President Emeritus of Memphis State University.

## Special Scholarships

ARMED FORCES COMMUNICATIONS AND ELECTRONICS ASSOCIATION (AFCEA) SCHOLARSHIP AFCEA awards one $\$ 500$ scholarship annually to a sophomore AFROTC cadet for undergraduate college or university study in a course relating to AFCEA's sphere of interest (Electrical, Electronics or Communications Engineering; or technical photography). The winning cadet receives two checks for $\$ 500$ each-one for use in the funlor year, one for use in the senior year. Inquirles should be directed to the Department of Aerospace Studies
AFROTC COLLEGE SCHOLARSHIP PROGRAM Scholarships covering full tultion, laboratory fees, incidental fees, rembursement for textbooks and $\$ 100$ per month in nontaxable pay are available to those enrolled in the Aerospace Studies program Such scholarships may be awarded for two, three, or four years and must be applied for during the school year preceding their activation. Four-year scholarships are available only to those qualified to enter the flying training Eligible students apply to Air Force ROTC (SDS), Maxwell AFB, AL 36112, not later than 15 December of their senior year in high school. Applications for other scholarships (2nd and 3rd year) are handled through the Department of Aerospace Studies and must be submitted by Spring Commencement of the preceding year
ALPHA DELTA KAPPA, ALPHA CHAPTER, annuallv 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.
THE ASSOCIATED GENERAL CONTRACTORS OF MEMPHIS INDUSTRY 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 TENNESSEE CONSTRUCTION INDUSTRY ADVANCEMENT FUND SCHOLARSHIP was established in 1974 The $\$ 500$ grant is made to a student from the Middle Tennessee area majoring in Construction Engıneering 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.
THE ELEANOR B. ONEILL 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 رournalism. In addıtion to the current scholarships, the Foundation is in the process of endowing two scholarships to assist students in these career areas
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. The maximum a student may expect to receive in a calendar year is $\$ 300$. The student must be in good academic standing and must show need for assistance as determined through application procedures of the Student Ald Office.
THE MEMPHS STATE UNIVERSITY HAIR SCHOLARSHIP FUND was established in perpetuity by the authors of the Broadway musical HAIF in honor of the Memphis State University Theatre production of the show in 1970 Scholarships are awarded annualiy on the basis of financial need and promising talent to majors in Theatre and Communication Arts. Application should be made to the charman of the Department of Theatre and Communication Arts

THE A ARTHUR HALLE MEMORIAL SCHOLARSHIP FUND annually provides two scholarships of $\$ 300$ each to outstanding high school graduates for the freshman year only.
THE HERFF ENGINEERING*SCHOLARSHIPS provided annually through the Herbert Herff Estate are avaılable to beginning and currently enrolled students who have a demonstrated aptitude for engineering Applications for these scholarships are submitted through the Herff College of Engineering.
HOME BUILDERS ASSOCIATION OF MEMPHISLADIES AUXILIARY OF MEMPHIS provides two scholarships at $\$ 500$ each per year The recipients are selected by the Division of Engineering Technology with approval of such by Ladies Auxiliary. Applicants must be Technology students in need.
THE ED HUMPHREYS SCHOLARSHIP FUND annually provides scholarships in varying amounts to outstanding high school graduates
THE W F. JAMESON MEMORIAL SCHOLARSHIP IS awarded annually to a freshman student in the Herff College of Engineering. The recipient of this scholarship must intend to pursue a career in construction engineering
THE JOSEPHINE CIRCLE SCHOLARSHIP, in the amount of registration fees, is awarded annually The award is made on the basis of scholastic record, personality, future plans of the applicant, and need
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 senior majorıng in journalism and seekıng a career in some phase of that profession. Both financial need and scholarship are factors in the selection of the recipient.
THE JAMES E. McGEHEE MORTGAGE COMPANY SCHOLARSHIP was endowed in 1966 by the McGehee Mortgage Company with a $\$ 10,000$ donation. Interest from the investment of these funds is used to award an annual scholarship to an outstanding high school graduate.
THE MIKE McGEE MEMORIAL SCHOLARSHIP FUND maintaıned by the Memphis Press Club provides one or more scholarships 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 committee. Applications are submitted through the Department of Journalism.
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 professor in the department which makes the award Applications are submitted to the respective departments

THE MEMPHIS AMATEUR BOXING ASSOCIATION SCHOLARSHIP FUND provides two scholarships annually in the amount of $\$ 500$ each. Priority is given to full-time students who are members of this Association The purpose of this scholarship is to encourage academic achievement, to foster an interest in amateur boxing in the Memphis area and to assist students who need help with educational expenses

THE 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 sentor student majoring in Office Administration or Secretarial Sciences and who intends to enter the Legal Secretary Profession This scholarshio is awarded on the basis of scholastic ability and financial need

THE MEMPHIS STATE UNIVERSITY FACULTY STAFF SCHOLARSHIP FUND was established in 1971 as an endowment program 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

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 amounts from $\$ 400$ to $\$ 700$ with the actual stipend determined 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 Murohy 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

THE SCRIPPS-HOWARD FOUNDATION-EDWARD $j$ MEEMAN SCHOLARSHIP FUND provides two scholarships annually in the amount of $\$ 500$ each to junior or senior journalism majors who demonstrate outstanding academic promise and financial need Students must be pursuing an academic curriculum which would qualify them for a journalism career in the broadcasting or newspaper field

THE SERTOMA CLUB-ROBERT TALLEY JOUR NALISM 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 $\$ 350$ to an advanced journalısm 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

THE SOCIAL WORK DIVISION SCHOLARSHIP FUND is maintained by the Opportunity Foundation Corporation and the State of Tennessee. Several scholarships in the amount of $\$ 500$ each are awarded annually to full-tıme juniors or sentors majoring in Social Work. Recipients are selected jointly by the faculty in the Division of Social Work and the Student Ald Office. Awards are based on scholastic standing and financial need

THE TENNESSEE ASSOCIATION OF BROAD CASTERS SCHOLARSHIP FUND provides one annual scholarship of $\$ 300$ This scholarship is awarded to the full-time junior or senior Radıo-Television 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 transpor tation career and construction related to road building. 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 accountıng 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 annually for a junior and senior year engineering student. Applications for these scholarships are submitted through the Herff College of Engineering

WARREN BROTHERS SCHOLARSHIP provides a $\$ 425$ scholarship annually to one junior or senior student majoring in Construction 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 Division 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 academic promise.

THE WHIRLPOOL MANUFACTURING TECHNOLOGY SCHOLARSHIP FUND provides two $\$ 350$ scholarships annually to junior and senıor students majoring in Engineering Technology with interest in metal products manufacturing

## LOANS AND GRANTS

## Supplemental Educational Opportunity Grant Program

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

## Law Enforcement Education Program

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

National Direct Student Loan Program The National Defense Education Act of 1958 provided funds to institutions of higher education for the purpose of making low interest, long-term educational loans available to students who demonstrate academic promise and who have a need for financial assistance. These loans bear no interest until nine months after a student graduates or interrupts his course of study; then the interest rate is 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 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 $\$ 200$, admınıstered by the Memphis branch of the AAUW, is available to women students recommended by the University

THE GENERAL EVERETT R. COOK ARNOLD AIR SOCIETY LOAN FUND was established to provide financial assistance in the form of short-term loans for students enrolled in the Professional Officer Course of the Air Force Reserve Officers Training Corps

THE GENERAL UNIVERSITY LOAN FUND provides short-term, low interest loans up to $\$ 200$ for those students in emergency situations

THE KAPPA LAMBDA SIGMA AND PHI LAMBDA DELTA LOAN FUND of $\$ 206$ was presented by the Kappa Lambda Sigma sorority and the Phı Lambda Delta fraternity in memory of those members of Phi Lambda Delta who died in World War II

THE DELTA OMICRON CHAPTER OF PHI DELTA KAPPA sponsors a loan fund of $\$ 500$, avallable in \$125 loans to full-time undergraduate seniors and full-time graduate students who are planning to be teachers

TENNESSEE ASSOCIATION OF PUBLIC ACCOUN. TANTS LOAN FUND was established to enable a needy junior or senior student in the Department of Accountancy to remain in the University. Loans are non-interest as long as student remains in the University

THE GENERAL RALPH H WOOTEN LOAN FUND was established for the purpose of providing low-interest educational loans to students enrolled in the Air Force Reserve Officers Training Corps.
THE ZONTA CLUB OF MEMPHIS LOAN FUND of $\$ 250$ is available to eligible junior and senior women. Applicants' names are submitted to a committee of the Zonta Club for approval and selection

University Revolving Student Loan Fund The University Revolving Loan Fund is established for the purpose of providing low-interest, long-term educational loans to assist students with college related expenses. This fund consists of donations by individuals and organizations interested in providing a means whereby students in need of financial assistance can secure such assistance.

## The Tennessee Student Assistance Award Program

Students who are residents of the state of Tennessee may apply for a Tennessee Student Assistance Award. These grants are awarded to students for the amount of registration fees and never to exceed $\$ 1000$. If a student's need is less than the cost of registration, as determined by filing the American College Testing Program Family Financial Statement, then the student may expect to receive no more than his actual established need. In order to apply, a student must submit a financial statement to the:

Tennessee Student Assistance Corporation<br>707 Main Street<br>Nashville, Tennessee 37206

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

Basic Educátional Opportunity Grânts
The Basic Educational Opportunity Grant (BEOG) Program was authorized under the Education Amendments of 1972. Other aid may be given in addition to the Basic Grant, as this program is intended to be the "floor" of a student's financial aid package.

The maximum yearly grant eligibility for each student is $\$ 1,600$ less the amount the family and student can be expected to contribute toward educational expenses. Other limitations on payment are related to the costs of attendance at the institution where the student enrolls. The Basic Grant cannot exceed one-half the educational costs. All degree seeking undergraduate students are eligible to apply for the Basic Grant Program.

## Other Loan Plans

There are several reliable plans under which parents may make loans to help defray the cost of college expenses. These plans provide loans at nominal rates of interest and are repayable in monthly installments. One such plan is Tuition Plan, Inc. Parents interested in
securing additional information about college financing of this type can obtain more information by writing:

The Tuition Plan, Inc. Concord
New Hampshire 03301
The Tennessee Educational Loan Corporation, in cooperation with the federal government, guarantees 100 per cent of loans made by Tennessee banks or other lending institutions to students from Tennessee who need to borrow money for their college education. This program enables lending institutions to provide long-term, low interest loans to students with a guarantee of receiving payment In most cases the federal government will pay the interest on these loans while the student is enrolled in college, and repayment does not begin until the borrower leaves college. Applications may be obtained from participating lending institutions and will be furnished by the University upon request. Similar programs known as Guaranteed Student Loans or Federally Insured Student Loans are available for non-residents through their home states. The Student Aid Office maintains a listing of all state agencies.

## Student Employment

There are many employment opportunities available through the University. The University operates two programs of student employment on campus: the College Work-Study Program and the 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 ACT Family Financial Statement, BEOG and show financial need. The Tennessee Department of Employment Security maintains an office in Room 205 of Scates Hall 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 cocurricular 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 Black Gospel Choir, the University Center, University Programs, Campus Recreation and Intramurals. Information on these and other co-curricular activities may be obtained in the Office of the Associate Dean of Students, 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 therr Individualized requirements, may necessitate the student's meetıng 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 avaılable 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 judıciary.

## PUBLICATIONS

Students write and edit The Helmsman, semi-weekly newspaper; The DeSoto, University yearbook, The Phoenix, the literary magazine; and the Memphis Statesman, a laboratory publication of the Department of Journalısm; the Student Handbook, a yearly publication.

RELIGIOUS AFFAIRS
Several religıous organizatıons 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 contınuing 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 Organizatıon, Latter-Day Saınts, Koinonia Club, Jewish Student Union, Newman Foundation, Wesley Foundation, Westminster Fellowship and Maranatha Christian 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 particıpate 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

Eighteen (18) national fraternities and eleven (11) 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 and Greek Activities.

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 natıonal fraternities include Alpha Epsilon Pi, Alpha Phi Alpha, Alpha Tau Omega, Kappa Alpha, Kappa Alpha Psi, Kappa Sigma, Lambda Chi Alpha, Omega Psi Phi, Phi Beta Sigma, Phi Gamma Delta, PhiKappa Psi, Phi Kappa Theta, Phi Sigma Kappa, Pi Kappa Alpha, Pi Kappa Phi, Sigma Alpha Epsilon, Sigma Chi, and Sigma Phi 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 and Greek Activities.

## UNIVERSITY PROGRAMS

University Programs is the principal programmıng 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 endeavers 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.

## 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 lesure activities. The department administers a competitive intramural sports program, supervised informal recreation program, a special events recreation program, and extramural sports club program.Intramural activities include softball, tennis, bowling, handball, flag football, bicycling, racquetball, badminton, billiards, turkey trot, innertube water polo, volleyball, wrestling, basketball, swimming, soccer, track and horseshoes.
The facilities of both the Physical EducationRecreation Building and the Field House are available for supervised informal recreation during posted hours. These facilities include five gymnasiums, 15 racquetball-handball courts, 31 tennis courts (14 lighted), two weight rooms, olympic-sized indoor and outdoor pools and diving wells, archery ranges, outdoor track and sports fields, combatives room, steam room, sauna room, and locker rooms. Additional assistance is provided through the loan of recreation equipment, the scheduling of space for practices and events, the sale of user fee tickets, the reservation of tennis and racquetball-handball courts, the rental of special equipment, and the assignment of faculty/staff lockers
The Club Sports Programs currently include handball, racquetball, soccer, weightliftıng, combatives, and volleyball. The sports clubs are bound together by common interests. The clubs may be formed for the purpose of receiving instruction and/or competition. The program is designed to serve individual and/or group interests in various sports and is student-oriented in every respect. Active student involvement is essential for a club to be successful. Each club selects a faculty advisor, draws up a constitution based on the club's philosophy, elects officers and sets up a training schedule and programs subject to departmental approval. Students interested in forming a sports club may do so by contacting the Coordinator of Club Sports (Physical Education-Recreation Building, 454-2803).

## HONOR, RECOGNITION, AND PROFESSIONAL

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

## Honors and Awards

## THE COLLEGE OF ARTS <br> AND SCIENCES

THE BETA BETA BETA AWARD is annually presented to the graduating senior and member of the Society who graduates with the highest grade point average in biology.
THE AMERICAN INSTITUTE OF CHEMISTRY AWARD
is presented to the graduating chemistry major who best demonstrates leadership, ability, character and scholastic ability.

THE DEPARTMENT OF ENGLISH offers several awards:
a. The Distinguished Scholarship Award presented each year to the English major whose work demonstrates an unusually high order of academic excellence.
b. Honors Thesis Award presented in recognition of the outstanding honors thesis submitted during the previous academic vear by a student in the English Honors Program
c. Freshman Writing Awards: Presented for creative excellence shown by freshman writers of essays, poetry, and fiction.

FRENCH GOVERNMENT ASSISTANTSHIPS: The French Government through the French Embassy in The United States, on the recommendation of the French Section of the Department of Foreign Languages, awards each year one or more assistantships in France for the teaching of English in secondary schools.
THE DEPARTMENT OF HISTORY annually presents the Tennessee Historical Commission Award to that senior student of history judged by the faculty to be the outstanding history major.
THE DEPARTMENT OF PHILOSOPHY OUTSTAND. ING STUDENT AWARD is presented to that student of philosophy chosen on the basis of high scholastic achievement, papers written, and performance in senior honors seminars.
THE DEPARTMENT OF POLITICAL SCIENCE presents The Outstanding Student Award each year to the graduating senior majoring in political science who has compiled the best record of academic achievement in the discipline.
THE DEPARTMENT OF PSYCHOLOGY sponsors the Undergraduate Research Festival Awards based on fine papers, each reporting on a research project originated and conducted by an undergraduate student in psychology.

THE DEPARTMENT OF SOCIOLOGY annually presents The Outstanding Student Award to the senior student judged to be the outstanding sociology major. Also, the DIVISION OF SOCIAL WORK presents the Graduate with Distinction Award to the graduate who has been selected for dedication, achievement, and potential for professional service.
CHI BETA PHI SCIENCE AWARDS: The student who has attained the highest academic average during his four years of study in each of the following disciplines: Bıology, Chemistry, Geology, Mathematical Sciences, Physics, and Psychology is honored by having his name inscribed on a plaque.

## THE COLLEGE OF BUSINESS ADMINISTRATION

THE AMERICAN SOCIETY OF WOMEN ACCOUNTANTS, Memphis Chapter, annually awards a $\$ 350$ tuition scholarship based on scholarship and need, to a junior or senior majoring in accountancy.
THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS AWARD, Memphis Chapter, is presented annually to the graduating student who has the highest overall scholastic average among all accountancy majors.
THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS SCHOLARSHIP, Memphis Chapter, presents one or more scholarships to accounting majors based on good scholarship, co-curricular activities, character and financial need.

THE MEMPHIS CHAPTER OF THE SOCIETY OF CHARTERED PROPERTY CASUALTY UNDERWRITERS annually awards a check and a plaque to the outstanding student in the field of insurance.

OCIETY FOR ADVANCEMENT OF MANAGEMENT CHOLARSHIP is annually awarded to that member f SAM who has served the society in an exemplary nanner and demonstrated leadership in the field of management.
MEMPHIS HOUSEWARES CLUB SCHOLARSHIP is resented annually to a marketing major to cover the egistration fee.
ELEANOR B. O'NEILL SCHOLARSHIP is awarded each year to a student majoring in marketing to cover he registration fees
THE NATIONAL BUSINESS EDUCATION ASSOCIATION annually awards a certificate of merit, a oneyear subscription to the N.B.E.A. Forum magazine, and a one-year membership card in the Association o the outstanding graduating senior who has majored in the field of business education.
NATIONAL SECRETARIES ASSOCIATION, MEMHIS CHAPTER, annually awards a $\$ 300$ scholarship to a graduating high school senior based on scholarship and a desire to be a secretary.

PHI GAMMA NU, professional sorority in business, each year presents a scholarship key to the woman business graduate who has maintained the highest scholastic average in The College of Business Administration

FINANCIAL EXECUTIVES INSTITUTE SCHOLARSHIP of $\$ 250$ is awarded annually to a second-semester junior in The College of Business Administration based on ability, need and an interest in controllership or financial management.
JOSEPH A. MAGDOVITZ SCHOLARSHIP of $\$ 500$ is awarded each year to a business major who resides in Shelby County, Tennessee or DeSoto County, Mississippi.

THE WALL STREET JOURNAL annually awards a plaque and a one-year subscription to the JOURNAL to the most outstanding graduate in the field of finance and one in economics.

DELTA SIGMA PI, international business fraternity, annually awards a scholarship key to the man in The College of Business Administration graduating with the highest academic average in business.
W. FRED CHAFIN SCHOLARSHIP of $\$ 500$ is awarded to a student who has demonstrated excellence in the field of business and who is a resident of West Tennessee

## the college of communication AND FINE ARTS

BOB JOHNSON MEMORIAL SCHOLARSHIP of $\$ 500$ is awarded annually to that student who shows interest in and dedication to journalism as a profession.
ELEANOR B. O'NEILL SCHOLARSHIP of $\$ 500$ is awarded to a junior or senior student of journalism who shows promise in the field.
JAN GARDNER \& ASSOCIATES INC ADVERTISING SCHOLARSHIP of $\$ 500$ is awarded annually to a deserving journalism student planning a career in advertising or related field.

MEMPHIS ADVERTISING FEDERATION ASSISTANTSHIP of $\$ 1,800$ is designed to encourage young people with outstanding ability and talent to enter careers in advertising.
MEMPHIS GRIDIRON MIKE McGEE MEMORIAL SCHOLARSHIP of $\$ 500$ is awarded to an upperclassman majoring in journalism who has demonstrated outstanding scholastic and journalistic ability.
NATIONAL OBSERVER AWARD is presented annually to the most outstanding journalism major

SIGMA DELTA CHI CITATION, Memphis Chapter, annually presents a certificate of achievement to the student chosen as outstanding in the field of journalism.
SCRIPPS-HOWARD FOUNDATION, EDWARD J MEEMAN SCHOLARSHIP in the amount of $\$ 500$ is annually awarded to a junior or senior student of journalism who intends to enter the field of newspaper journalism.
SOCIETY FOR COLLEGIATE JOURNALISTS annually awards the Medal of Merit for outstanding achievement on campus publications.

SOCIETY OF PROFESSIONAL JOURNALISTS, SIGMA DELTA CHI MARK OF EXCELLENCE AWARDS, Arkansas, Louisiana, Mississippi, West Tennessee Region, annually presents first place awards for Best TV Broadcasting, Best Editorial Cartoon, Best Feature Article, and Best Photography Feature.

WILLIAM RANDOLPH HEARST FOUNDATION SCHOLARSHIP of $\$ 250$ is awarded annually to an upperclassman majoring in journalism who intends to enter newspaper journalism.
SIGMA ALPHA IOTA COLLEGE HONOR AWARD annually presents an award band on musicianship, scholarship, and general contribution to the Collegiate Chapter
SIGMA ALPHA IOTA HONOR CERTIFICATE is presented annually to the music major graduating with the highest academic average.
lubrani clarinet award, in memory of Professor Frederic Lubrani, is presented for performance ability, general scholarship, service to the Music Department, and potential in the profession.
SMIT COMPOSITION AWARD is presented in memory of Professor Johannes Smit for excellence in composition.
COTERIE CLUB DRAMA SCHOLARSHIP of $\$ 300$ is awarded annually to the outstanding woman undergraduate theatre major.
HAIR SCHOLARSHIPS are awarded annually to students majoring in theatre and communication arts on the basis of financial need and promising talent.
ISSAC HAYES EVENING OF SOUL SCHOLARSHIPS are awarded annually to students majoring in theatre and communication arts on the basis of financial need and demonstrated interest in black theatre.

SPEECH AND DRAMA ALUMNI SCHOLARSHIPS 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.
MEMPHIS AREA BROADCASTERS SCHOLARSHIP is awarded annually to an outstanding undergraduate in the area of broadcasting.

## 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 AWARD is presented annually to the senior majoring in distributive education who has made the most outstanding contribution to the Memphis State Chapter.
ELEANOR MAE FERGUSON AWARD is presented each year to the outstanding junior or senior woman physical education major who displays strong leadership, outstanding character, high scholarship and an active role in departmental and campus activities.
RALPH HATLEY, SR. AWARD is presented to the outstanding junior or senior male physical education
major who displays strong leadership, outstanding character, high scholarship and an actıve role in departmental and campus activities.
HPER WIVES CLUB SCHOLARSHIP, based on scholarship, leadership, service and professional attitude, is presented to a junior or semor who is majoring in one of the degree programs in the department.
HPER OUTSTANDING SENIOR AWARD is presented in recognition of meritorious scholarship, leadership, and service to the University, the community, and the profession.
HOLIDAY INN HOME ECONOMICS AWARD is presented each year to the graduating senior with the highest academic grade point average in home economics.
DEPARTMENT OF SPECIAL EDUCATION AND REHABILITATION OUTSTANDING STUDENT AWARD is annually presented by the Student Council for Exceptional Children to the outstanding student majoring in the department who displays strong leadership, outstanding character, scholarship and an active role in departmental and campus activities.
KAPPA DELTA PI AWARDS: Junior Academic Award is presented to the outstanding junior in The College of Education. Senior Academic Achievement Award is presented to the outstanding senior enrolled in The College of Education.
MEMPHIS EDUCATION ASSOCIATION AWARD is presented each year to the graduating 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.

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.
HEBER E. RUMBLE OUTSTANDING STUDENT TEACHER AWARD is presented each year to the student whose performance in student teaching is judged to be the most outstanding

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 Engineering, 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 presented to the outstanding student by the student chapter.

ASSOCIATED GENERAL CONTRACTORS AWARD is presented annually by the student chapter for outstanding achievement.

## UNIVERSITY COLLEGE

DISTINGUISHED SPECIAL PROJECT AWARD is presented to each student whose special project has been judged outstanding by the Faculty Council of University College.

## DEPARTMENT OF AEROSPACE STUDIES

LEGION OF VALOR BRONZE CROSS OF ACHIEVE MENT recognizes one outstanding Air Force ROTC sentor cadet in the southeast area for performance and achievements as an AFROTC cadet

AMERICAN FIGHTER ACES ASSOCIATION AWARD recognizes the outstanding graduating AFROTC pilot candidate in the southeast based on performance and achievements as an AFROTC cadet and performance in the Flying Instruction Program.

THE PRESIDENT'S AWARD IS PRESENTED annually to the MSU Freshman or Sophomore AFROTC cadet who has demonstrated outstanding attributes of leadership and high moral character. Selection is made by AFROTC with final approval by the University President.

ANGEL OF THE YEAR AWARD is presented to the member of Angel Flight who has given the most in service to the campus and the community.

ARNOLD OF THE YEAR AWARD is presented to the member of Arnold Air Society who has given the most in service to the campus and the community

## SPECIAL AWARDS

MARIA LEONARD SCHOLARSHIP AWARD is presented annually by Alpha Lambda Delta, natıonal scholastic honor society, to the senior member of the society with the highest academic average
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.

PHI KAPPA PHI SCHOLARSHIP AWARD is presented annually to a member of the society who graduates with the highest academic average.

THE INTRAFRATERNITY COUNCIL annually presents four $\$ 100$ scholarships, one each to a sophomore, a junior, and a senior fraternity member, who attains the highest scholastic average in his class. The fourth scholarship is presented to the fraternity pledge from the previous fall or spring semester who attained the highest grade point average.

THE PANHELLENIC COUNCIL annually awards two $\$ 200$ scholarships to the sophomore and the junior sorority member who has 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.

CAMPUS RECREATION AND INTRAMURALS AWARDS are presented annually to the intramural Greek, intramural independent and the intramural woman of the year who shows leadership and interest in the intramural program.

THE STUDENT GOVERNMENT ASSOCIATION presents at each commencement convocation a plaque and a $\$ 100$ check to the graduating senior who has attained the highest cumulative average.

## STUDENT HOUSING

The University operates six residence halls for men and five 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. For information concerning residence hall rents and deposits see page 27.

## 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 classes 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 Mid-South 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.

## 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 admis-
sion 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 text books, 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 issued to the individual student and must not be loaned to another person for any reason.

## Automobiles on Campus

Each person who expects to operate and park any motor vehicle on the campus of Memphis State University must register it in the Security Office and receive an official permit. Permits are valid from September through August. All students must show proof of title of vehicles upon registering automobiles with the Security Office.

Limited parking space necessitates ose regulation of traffic. Each student is esponsible for acquainting himself with he campus traffic and parking regulaons, copies of which are available in the ecurity Office.

## Bookstore

he University Bookstore, located in the Iniversity Center, is owned and operated $y$ the University for the convenience of Is students, faculty, staff, and their uests. In addition to textbooks and upplies required or recommended for very course in the University, the lookstore also stocks clothing, cosmetcs, notions, physical education uniforms, tationery, rental typewriters, and gift tems; it is the only source for purchase of he official Memphis State University
class ring.

## Post Office

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

## Alumni Association

The Memphis State University Alumni Association maintains active contact with former students for the mutual benefit of alumni and the University.

All students who have completed at least one semester, and are no longer enrolled in the University, are automatically members of the Association. There are more than 100,000 Memphis State alumni.

The Alumni Association annually conducts a fund drive. Proceeds are used for scholarships, teacher supplements, and other improvements for the University.

The Association is organized nationally. It is governed by a 33 -member Board of Directors elected by the general alumni membership and alumni chapter presidents on a geographical basis and by special interest.

The Alumni Association coordınates all university events involving alumni. It publishes The Columns magazine six times a year.


## 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 with three-week, five to six-week, nineweek, 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 regulations, and registration procedures. Students are assigned advisors who aid them in selecting appropriate courses. Assistance from the advisor, however, does not relieve the student of the responsibility of studying the Bulletin himself and fulfilling all of the requirements therein for his particular goal. It is expected that by 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. All courses for which the student is registered are recorded as passed (with a letter grade), "T," credit, failed, satisfactory, unsatisfactory, incomplete, dropped, or withdraw. No student will be granted credit for a course which is not properly entered on his official registration material. Registration is not complete until all fees for the semester have been paid.

## APPEALS TO UNIVERSITY POLICY

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

## CLASS ATTENDANCE

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

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

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

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

## Adding and Dropping Courses

After the official registration period is over, the student may make adjustments in his schedule through the process of adding and/or dropping courses. Courses may be added only during the first five days of classes (three days in the sixweek summer term and four days during the extended term). Courses dropped during this same period will not be shown on the student's permanent record. Courses dropped after the period to add classes will be indicated on the record as dropped. A student may drop any course or courses up to the middle of the semester on the date specified in the University Calendar for that term. Exceptions are made only on the basis of such unusual circumstances as serious personal illness, relocation because of employment, et cetera. A fee is charged for courses added or dropped. See the section of the Bulletin pertaining to fees and charges. To stop attending a class without officially dropping the course incurs the grade of $F$.

## Withdrawal From University

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

Withdrawal is not permitted after the date specified in the University Calendar for that term (the date on which one-half of the term is completed). Exceptions are made to this policy only in cases of such extreme circumstances as serious personal illness, relocation because of employment, et cetera.

## CLASSIFICATION OF STUDENTS

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

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

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

## Credit Hours and Maximum Load

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

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

## ACADEMIC FULL-TIME CLASSIFICATION AND MAXIMUM LOAD

| Term | Minimum Maximum |  |
| :---: | :---: | :---: |
|  | Hours | Hours |
| all or Spring | 12 | *18 |
| 're-Summer | 3 | 4 |
| irst or Second Summer | 4 | 7 |
| Nine-Week Summer only | 8 | 9 |
| Extended Summer only | 8 | 14 |
| Nine-Week and First or Second | 8 | 10 |
| Extended and First or Second | 8 | 10 |
| Vine-Week and First and Second | 9 | 14 |
| Extended and First and Second | 9 | 14 |
| Extended, Nine-Week, First, and Second | 9 | 14 |

This does not include the required physical educaion activity course. 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-tıme 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 PreSummer 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 <br> 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 sometımes given for courses graded on $\mathrm{S} / \mathrm{U}$ basis. The $\mathrm{S} / \mathrm{U}$ 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. No student
will be granted credit for a course which is not properly entered on his official registration card.

## GRADE OF INCOMPLETE

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

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

## 'T' GRADE

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

1. Prior to the registration period, the professor obtains approval of his chaırman 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 " 1 " grade is awarded, a runner with the student's name on it will be sent to the faculty member at the end of 45 days. The faculty member must record etther 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 GPA.

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

Persons who are not enrolled for credit courses may register for 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.

Students enrolled for credit courses may take no more than one audit course per semester. Persons who are not enrolled for credit courses may register for a maximum of three courses with the approval of the department chairman. 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 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.

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 page 138.) 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-no-credit basis must be obtained from the advisor and the dean of the student's degree granting college. Credit hours earned on a credit-no-credit basis will be accepted toward degrees within the following limitations:

The College of Arts and Sciences accepts hours earned on a credit-no-credit basis in any course which is not required for the student's degree.
The 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 accepts hours earned on a credit-no-credit basis in any course which is not required for the student's major.
The College of Education accepts hours earned on a credit-no-credit basis in any course which is not required for the student's major, professional education requirements and endorsement requirements.
The College of Engineering accepts hours earned on a credit-no-credit basis in any course which is not specifically required for the student's dearee.
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-no credit basis only during the add period. A student making such a change will be charged as if he were dropping and add ing a course. The student who success fully completes a credit-no-credit cours will receive the appropriate number o hours as credit toward his graduation These hours will not be used in the computation of his quality point average

## STUDENT GRADE APPEAL PROCEDURE

This appeal procedure is designed to provide any undergraduate or graduat student at Memphis State University with a clearly defined avenue for appealing the assignment of a course grade which heo she believes was based on prejudice discrimination, arbitrary or capriciou action, or other reasons not related to academic performance. In all cases the complaining student shall have the burden of proof with respect to the allegations in his complaint and in hi request for a hearing. If any party fails th pursue timely any step of the procedure the disposition of the student's complain made in the last previous step shall b final. The procedure will be terminated a the level at which the instructor and th student are brought into agreement or the appealed grade. All correspondenc and records will be retained in the offic in which the complaint is finally resolved
Step 1 The student shall first consult with th instructor in an effort to provide a satisfactor resolution of his complaint. In the event the studen cannot schedule a meeting with the instructor, he may contact the department chairman who wil schedule the meeting between the student and the instructor. The only exception to this procedure is the case where the instructor has been terminated by the University or is unavailable so that it is impossible t complete Step 1 within the allotted forty-five days. In this case the student may proceed directly to Step 2
Step 2 If the complaint is not resolved in Step 1, the student may present his complaint in writing to the chairman of the department in which the course wa: offered within forty-five days from the end of the term during which the grade was received. For th purposes of the grade appeal procedure, all summe sessions collectively (including the pre-summe term) will constitute a single term. (Students enrolle in courses during any summer term shall have forty five days following the end of the last summer term in which to file a grade appeal. The departmen charman will attempt to resolve the complaint in consultation with the instructor and the studen within a fifteen-day period dating from the forma presentation of the written complaint. The depart ment chairman may, at his discretion, counsel witl the faculty of the department.

If the department chairman was the instructor o the course involved in the complaint or if for an reason the chairman disqualifies himself, the writter complaint of the student shall be submitted to the dean of the college.
The student's grade may be changed in Step 20 the appeal procedure by the written consent of th instructor and the student.
Step 3 If the complaint cannot be resolved at the level of Step 2 within the prescribed fifteen-day time period, the student within five days following the en
of such period, may request in writing that the chairman forward his complaint to the dean. The chairman must forward the student's complaint to the dean within five days. The chairman will provide the dean with a copy of all correspondence and records pertaining to the complaint.

The dean may utilize any resources available to his office to resolve the grade conflict within a fifteen-day period. The dean's decision in this matter will be formally announced at a meeting of the dean, the chairman, the instructor, and the student. If the dean and chairman are in agreement that the grade should be changed, either raised or lowered, the oean shall be empowered to change the grade without the instructor's consent. Otherwise the grade shall remain as recorded

Either the student or the instructor may appeal the decision made under Step 3 within fifteen days by filing a written request for a hearing before the University Grade Appeals Committee. In the event of such an appeal the decision shall be stayed pending the completion of the procedure in Step 4. The dean must be provided a copy of the hearing request.

Step 4 The written request for a hearing before the University Grade Appeals Committee should state the factual basis for the appeal of the dean's decision. If the committee finds the student's or the instructor's request merits a hearing, the committee shall notify the student, the instructor, the chairman and the dean of the time and location of the hearing. If the committee finds that the request does not merit a hearing, the student and the instructor shall be so notified.
The University Grade Appeals Committee shall function as a review board. Based on its appeal review process, the committee shall make the final decision unless there is an appeal of the committee's decision, by either party, to the Vice President for Academic Affairs for final determination. The committee shall have the power to allow the assigned grade to stand or to raise or lower the assigned grade. Its decision must be formally announced to all parties. The time schedule allotted for completion of action by the committee shall be fifteen days

The University Grade Appeals Committee shall be composed of seven members and seven alternates constituted as follows

A chairman designated by the Vice President for Academic Affarss, a faculty member and alternate designated by the dean of the college involved, two faculty members and two alternates elected by the Academic Senate, three students and three alternates selected through the Student Government Association.

Although the primary responsibility of the committee is to review appeals, the committee will report any obvious discriminatory or capricious conduct on the part of either the student or the instructor to the appropriate Vice President for his consideration and action.

## Quality Points

In computing a student's scholarship ratio, or quality point average, all courses attempted are included except credit-nocredit, audit, incomplete, and satis-factory-unsatisfactory courses and "T" grades. As an example: a student carrying five three-semester-hour courses for a total of 15 semester hours makes the following grades: $A, B, C, T, F$; he has thus accumulated quality points in the amount of $12,9,6,0,0$, for a total of 27 . In computing his quality point average, the number of hours attempted (except " T " grade (12) is divided into the quality points earned (27) for an average of 2.25 .

Graduation: A minimum of 2.0 quality point average on all work attempted is required for graduation.

## Academic Status and Retention

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

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

## GOOD STANDING

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

## ACADEMIC PROBATION

A student will be placed on academic probation at the completion of any regular semester or summer session when his cumulative OPA falls below the following:
HOURS ATEMPTED MINIMUM QPA
11.99 or less

No minimum
12.00-25.99
1.00-1.37
26.00-39.99
$1.40-1.67$
40.00-59.99
60.00-89.99
1.70-1.89
90.00 or more
1.90-1.99
2.00

For numbers of hours attempted which are not in the table, the minimum QPA 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 academic probation." Withdrawal by such a student from any subsequent probationary semester will be treated as an academic suspension requiring clear-
ance from the Academic Status and Retention Office for any future registration.

## ACADEMIC SUSPENSION

A student on academic probation who, during his next term of enrollment, fails to raise his grade point average to the acceptable minimum indicated above will be placed on academic suspension for not less than one regular semester or summer session. There is one exception to this policy. A student on academic probation will not be placed on academic suspension at the end of any semester or summer session during which he earns twice as many grade points as hours attempted for that tefm. This is equivalent to a term average of 2.00 .

Following his second academic suspension, a student will be readmitted only on special approval by the Committee on Readmission on the basis of adequate evidence of ability, maturity, and motivation; this student must be out of Memphis State University one calendar year before his application for readmission will be considered.

## Recognition for Academic Performance

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

## The Dean's List

The Dean's List is composed of those students who complete a minimum of fifteen semester hours with a grade 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 QPA used for determination of distinction for the second degree will be calculated from all undergraduate courses taken.

Either the complete set of requirements governing graduation with distinction in the current 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 freshman must place in group three, four, or five of the CEEB Advanced Placement Tests.

## 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 page 22), the Office of the Dean of Admissions and Records will, at the time the student applies for admission, determine the acceptability of extension and/or correspondence credits earned at other institutions. After the student has been admitted as a regular undergraduate, whether he is a beginning freshman or a transfer student, he will not be given credit applicable to any Memphis State University degree for subsequent correspondence or extension courses unless he has obtained, prior to his enrollment in such courses, written permission from the dean of the college in which he is majoring.

No student is permitted to enroll for correspondence or extension courses while he is carrying a maximum load at Memphis State University.

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

A student who has completed thirtythree of the last sixty-six hours required residence and who lacks no more than four semester hours toward completion of degree requirements may earn these additional credits by acceptable correspondence or extension work, or by residence at another approved institution. (For details of residence requirements, see page 48.)

## University Credit by Examination CLEP Examinations

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

## Departmental Examinations

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

The following regulations govern the granting of credit by examination:

1. Any enrolled student-full-time, part-time, or extension-who has a 2.0 OPA may make application to take an examination for credit. A student who has been admitted but has not yet registered for courses at Memphis State will have the credit earned by examination posted after he has enrolled.
2. Permission to take a credit examination must be obtained from the chairman of the department in which credit is sought and from the dean of the college in which the student is seeking a degree. When permission is granted and after payment of the cost of the examina-
tion, the Dean of Admissions and Records will issue an official permit for the examination.
3. The form of the examination, the method of administerıng it, and the time of examination are left to the discretion of college departments.
4. To receive credit, the student's examination grade should be a grade equivalent of at least a C. There are no restrictions governing the number of credit hours which may be earned throuigh credit by examination. Credit is indicated on the student's record as Cr

## Credit By Placement Examination

In departments in which placement examinations are given, a student may elect to receive credit for certain sequential courses numbered lower than the course in which the student was placed.
(1) A student may take the proficiency test, which is given at the beginning of each semester, in order to best determine the initial course in which he should be placed. A student taking the proficiency test may apply im-
mediately for the hours of credit warranted by the test score. He must make written application to the chairman of the department and make payment of appropriate fees for such credit to be recorded.
(2) A student may enroll in a course at the level for which he feels previous training qualifies him. In the Department of Foreign Languages, recording of credit for the lower numbered course may be requested by the student upon completion of the course in which he was enrolled and is contingent upon his having earned a grade of $C$ or higher in the course. Written application to the chairman of the department and payment of appropriate fees is required for such credits to be recorded.

There is no fee charged for taking placement examinations; however, there is a fee for all placement credits which are
recorded For information on the fees, see page 27.

## University College Credit for Experiential Learning

Students seeking degrees in the University College may be granted credit for college-level knowledge and understanding gained from work experience, life experience, or for certain nontraditional instruction. The student who wishes an assessment of such learning prepares a detalled 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.

# Bullelin <br> Memphis State University 



6 Graduation from the University

## 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 Science 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 Engineering, Bachelor of Science in Engineering Technology, Bachelor of Science in Technology, Bachelor of Science in Geology.
The University College: Bachelor of Liberal Studies, Bachelor of Professional Studies.
The Graduate School: Doctor of Philosophy, Doctor of Education, Doctor of Musical Arts, Doctor of Business Administration, Specialist in Education. Master of Arts, Master of Arts in Teaching, Master of Business Administration, Master of City and Regional Planning. Master of Education, Master of Fine Arts, Master of Music, Master of Public Administration, Master of Science.
The 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 the sections of the Bulletin devoted to a description of the undergraduate colleges. Requirements for the Juris Doctor degree will be found in the Bulletin of The School of Law; requirements for graduate degrees will be found in the Bulletin of The Graduate School.

## GENERAL REQUIREMENTS

The following requirements have been established 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.

## 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 or 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 must successfully complete a minimum of three semester credits in mathematics or Philosophy 1611.

## 4. Science

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

## 5. Physical Education

Two semesters of physical education activity courses are required of all regular undergraduate students during the first four semesters in the University. The regular undergraduate student who is part-time or who is taking the majority of his hours in the evening is not required to take the courses during the first four semesters but is encouraged to schedule these courses as early as possible during his college residency. The student may select the activity courses of his choice. With the exception of Physical Education 1001 (Conditioning), the student may not take the same activity course for credit
more than once. He may receive credit in Physical Education 1001 for one or two terms, but he may not receive more than two semester hours of credit for this course during any one term.

A student unable, for medical or other reasons, to take regular physical education is required to register for an adaptive class, or otherwise follow recommendations of the Chairman of the Department of Health, Physical Education and Recreation.

A student may reduce the number of required physical education credits by the number of credits in Air Force ROTC completed with a passing grade. Two semester hours of physical education may be waived for students who earn two semester hours as members of the Memphis State University Marching Band. Band members are required to take a minimum of one semester of physical education and may not receive waivers for both band and Air Force ROTC.

No student other than a physical education major or minor or a recreation major may apply more than eight semester hours of physical education to the minimum degree requirement of 132 semester hours. (See specific college limitations.) A veteran receiving as many as six semester hours of health and physical education for service experience may apply two extra credit hours toward the minimum of 132 semester hours required for graduation.

## 6. Quality Point Average

To receive a bachelor's degree from any of the colleges in the University, a student must have a quality point average of at least 2.000 (i.e., two quality points for every semester hour attempted); for the method of computing the quality point average, see page 43. If for any reason a student offers more than 132 semester hours credit for graduation, the ratio of two quality points to one semester hour of credit must be maintained. To attain this standard the candidate must have a C average on all courses attempted in the University. Students who enter Memphis State University with advanced standing are required to maintain an average of $C$ on all courses taken here.

## 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 senicr institution.) In addition, the student mustmeet 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 the section of the Bulletin beginning on page 51 . 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, receive a baccalaureate degree from Memphis State University. The following provisions must be met before enrollment in the professional school:

1. The candidate must complete a minimum of 99 semester hours of pre-professional coursework; at least 24 semester hours of this coursework must be numbered above 2999.
2. The last two semesters of pre-professional coursework must be done at Memphis State University.
3. The candidate must meet all lower division requirements for the given baccalaureate degree.
4. The candidate must complete a minimum of 24 semester hours in a major area; at least 6 of these hours must be taken in residence at Memphis State University.
5. Formal application for the Memphıs State University degree must be made to the dean of the college in which the candidate is enrolled. The dean must also approve in writing the choice of professional school.
a. Minimum entrance requirements to the professional school must be 60 semester hours of undergraduate work
b. The professional school must be accredited by the appropriate recognized natıonal association.
The candidate in the pre-professional degree program should notify the dean of his college of his intentions no later than the beginning of his sophomore year and should, with the guidance of his advisor, plan his program at that time.

## REQUIREMENTS FOR TEACHER CERTIFICATION

An undergraduate student can receive 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 on page 74.

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, consistıng 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 $V$ beginning on page 75 .
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 (see page 72); (2) fulfill the requirements and application procedures for the student teaching program (see page 73); (3) register in the Teacher Certification and Placement Office, and (4) have a cumulative GPA in all courses of at least 2.25 and a minimum GPA of 2.25 in all Professional Education courses, required or elective (see page 75) and in the endorsement area. For the method of computing the required 2.25 grade point average(s) in the endorsement(s), see page 43.

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.

## CATALOG APPLICABILITY

The degree requirements published in the undergraduate catalog issue of the Memphis State University Bulletin are valid for seven years from the beginning of the academic year to which the catalog applies. A student may complete the requirements for his initial degree under the provisions of any valid MSU catalog provided the effective date of that catalog is not earlier than his initial admission to MSU or some other accredited institution of higher learning. (This issue of the catalog is valid until fall of 1986).

## SECOND BACHELOR'S DEGREE

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

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

## Bulletin <br> Memphis State University



7 Colleges and Divisions

# The College of Arts and Sciences 

WALTER RHEA SMITH, Ph.D., Dean<br>JAMES F. PAYNE, Ph.D.,<br>Associate Dean

Room 217, 219, Mitchell Hall

## 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 medicine, dentistry, nursing, teaching, law, and other professions; specific pre-professional programs, designed to prepare students to qualify for admission to professional schools, are available.

## ORGANIZATION OF THE COLLEGE Departments

The College of Arts and Sciences comprises fourteen departments: Anthropology, Biology, Criminal Justice, English, Foreign Languages, Geography, History, Mathematical Sciences, Philos-
ophy, Physics, Political Science, Psychology, and Sociology and Social Work. Requirements for the majors and minors offered by these departments are listed in the section beginning on page 56 .

## CONCENTRATION GROUPS

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

## Lower and Upper Divisions

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

## The Institute of Governmental Studies and Research (Department of Political Science)

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

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

This prehistoric Indian village and the museum are operated by the Department of Anthropology as an educational and research facility. The indoor and outdoor exhibits are designed to reconstruct prehistoric Indian life in the Mid-South.

Students are trained in the techniques of excavation, restoration and museum operations. The courses taught are listed in the Department of Anthropology offerings. Chucalissa is located 17 miles from the main campus, west of Highway 61 South, off Mitchell Road. The facility is open to the public throughout the year except during Christmas-New Year and University holidays.

## ADMISSION

Requirements for admission to The College of Arts and Sciences are those set up for the University as a whole; see page 22.

## RESIDENCE REQUIREMENTS

University residence requirements are explained in detail on page 48. 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.

## FOREIGN LANGUAGE REQUIREMENTS

Specific requirements in foreign language for the degrees offered by The College of Arts and Sciences are as follow:
A. BACHELOR OF ARTS AND BACHELOR OF SCIENCE: Twelve semester hours or the equivalent, in one foreign language.
B. BACHELOR OF SCIENCE IN CHEMISTRY: German 1101, 1102, 2201 and 2203.
C. BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY: Six semester hours in one foreign language.
A student already having proficiency in a foreign language taught at Memphis State University (attained through high school or college courses, military service, private study, foreign residence, etc.) should enroll in a course at the level for which his training qualifies him. He can best determine this initial course by taking the placement test which is given at the beginning of each semester. (Detailed information is available from the
chairman of the Department of Foreign Languages.) A student taking the placement test can apply immediately for the hours of credit warranted by the test score. Information pertaining to the charges for placement credit is given on page 27. 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: Lower-division credit in the native language will be given when he has demonstrated the English proficiency required for graduation (see page 48 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.

## PRE-PROFESSIONAL TRAINING

Standing committees of the faculty are available to advise students interested in preparing for careers in various professional areas; committee members, representing departments of the University in which pre-professional training is given, advise students concerning specific programs required by the various pro-
fessional 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 pre-professional degree program described on page 49 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.

## ACADEMIC PROGRAMS 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. Requirements for these degrees are outlines in the section beginning on page 54.

The following is an outline, by uepartments, of all majors and concentration areas offered by The College of Arts and Sciences.
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 | Brology | (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.) |
| Institute of Criminal Justice | Criminal Justice | (1) Corrections <br> (2) General Crimınal Justice <br> (3) Police | Bachelor of Arts (BA) |
| Economics | Economics |  | Bachelor of Arts (B.A.) |
| English | English |  | Bachelor of Arts (B.A.) |


| Department | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Foreıgn Languages | Foreign Languages <br> (With single <br> language concentration <br> from the frrst <br> five or multiple <br> fanguage concentration <br> from total (1st) | (1) French <br> (2) German <br> (3) *Russian <br> (4) Spanish <br> (5) Latın <br> (6) Greek <br> (7) Italıan | Bachelor of Arts (B.A.) |
| Geography | Geography | (1) No Concentration OR <br> (2) Cartography <br> (3) Earth Science | 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 Mathematıcs <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 | Physics |  | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| Political Science | Political Science | (1) Political Science <br> (2) Public Administration | Bachelor of Arts (B.A.) |
| Psychology | Psychology |  | Bachelor of Arts (B.A.) Bachelor of Science (B.S.) |
| Sociology and Social Work | Sociology | (1) General Sociology <br> (2) Manpower <br> (3) Social Research <br> (4) Urban Sociology | Bachelor of Arts (8 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
Foreıgn Languages

## INTERDEPARTMENTAL PROGRAMS

## Comparative Literature

The program in Comparative Literature is conducted through the cooperation of the Departments of English, Foreign Languages (Classics, French, German, Italian, Russian, and Spanish), History, Philosophy, and Theatre and Communication Arts. The program gives qualified students the opportunity to study Western Literature within an international context while developing simultaneously a particular competence in two specific literatures. The program offers a broad range of courses and allows the individual student considerable freedom in structuring his major. While studying the two literatures of his choice, the student may wish to concentrate on an aspect of Western Literature common to both. He might, for example, concentrate on a period (e.g., the Renaissance) or a movement (e.g., Naturalism) or a genre (e.g., the epic). Whatever the student's program in Comparative Literature, he can expect to acquire a broader sense of literary history and tradition than may be derived from the study of a single literature.

Courses offered by the program fall into four general classes:

1. Courses in foreign literature read in English translation. These courses are taught entirely in English and do
not require the use of a foreign language.
2. Courses in foreign literature read in the original language. Proficiency in the foreign language is required.
3. Courses in English and American Literature.
4. Special courses related to literature in the areas of history, philosophy, and theatre.
For the major in comparative literature, see page 56.

## International Studies

See Independent Programs on page 93.

## Urban Studies

The program is offered through the cooperation of the Departments of Anthropology, Economics, Geography, History, Political Science, and Sociology and Social Work. The program provides students with opportunities to study the city within a multi-disciplinary framework. See Independent Programs on page 95.

## 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 beginning on page 49. An application to enter the teacher education program must be filed with the education analyst, room 211-A, The College of Education.

## DEGREE REQUIREMENTS 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 (on a scale in which the grade of $A$ has a quality point value of $4 ; B, 3 ; C, 2$; and $D, 1)$. Of the 132 semester hours required for graduation, at least 42 semester hours must be in courses from the Upper Division (those numbered above 2999). 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:

ENGL 1101, 1102 with a minimum grade of C ; and two of the following: $2101,2102,2103,2104$, 2105, 2106.
oreign language: 12 semester hours, or the equivalent, in one foreign language; for details see page 53.
IST 2601, 2602.
atural 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 PYSC 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 $2511,2512$.
ocial science: 15 semester hours with no more than 6 semester hours in a single discipline. Courses from which these must be selected are ANTH 1100 or 1300 , and ANTH 1200 or 1400 ; CJUS 1100; ECON 1010, 2110,2120 ; GEOG 2301, 2311; HIST 1301, 1302; International Studies 1101, 1102; POLS 1101, 2211, 2301, 2501; PSYC 1101, 1102; SOCI 1111, 1112; no more than 6 hours from the following courses; JOUR 1011, 1012; COMM 1781, 1782.
Mathematics/Philosophy: 9 semester hours as follow: 3 or mathematics plus 3 of philosophy plus 3 of either. The following courses are acceptable: MATH 1181, 1182, 1203 or 1211; 1212, 1312, 1321, 1401, 1402,2291, 2321, 2322, 2401, 2402, 2581; PHIL 1111, 1611.
wo of the following courses: ART 1101; MUHL 1101; THEA 1551.
Physical Education: for details see page 48
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.
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 (on a scale in which the grade of $A$ has a quality point value of $4 ; B, 3 ; C, 2$; and $D, 1$ ). Of the 132 semester hours required for graduation at least 42 semester hours must be in courses from the Upper Division (those numbered above 2999). No more that 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:

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; for details see page 53.
HIST 2601, 2602.
Mathematics: 6 semester hours selected from the following: MATH 1181, 1182, 1203 or 1211, 1212, 1312, 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 1300 , and ANTH 1200 or 1400, CJUS 1100; ECON 1010, 2110, 2120 , GEOG 2301, 2311; HIST 1301, 1302; INTS 1101, 1102; PHIL 1111, 1611; POLS 1101, 2211, 2301, 2501; PSYC 1101, 1102; SOCI 1111, 1112 ; no more than 6 hours from the following courses: JOUR 1011, 1012; COMM 1781, 1782.
Two of the following courses: ART 1101; MUHL 1101 THEA 1551.
Physical Education: for detalls see page 48.
(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.)
Completion of the requirements for a major in one of the following disciplines: anthropology, biology, chemistry, geography, mathematics, physics, or psychology.
Students majoring in anthropology, geography, or psychology (for a Bachelor of Science degree) must complete a minor in either biology, chemistry, mathematics, or physics.
Electives to bring the total to 132 semester hours.

## Bachelor of Science in Chemistry

To qualify for the degree of Bachelor of Science in Chemistry, the student must complete a minimum of 132 semester hours with a quality point average of 2.0 (on a scale in which the grade of A has a quality point value of $4 ; B, 3 ; C, 2$; and $D$, 1). Of the 132 semester hours required for graduation, at least 45 semester hours must be in courses from the Upper Division (those numbered above 2999). No more than 18 semester hours may be in courses outside The College of Art and Sciences except for courses required for teacher certification. The required or optional courses included in the degree requirements are not a part of these 18 semester hours. Detailed requirements are as follow.
ENGL 1101, 1102 with a minimum grade of $C$; and two of the following 2101, 2102, 2103, 2104. 2105, 2106
Foreign language: GERM 1101, 1102, 2201, and 2203.

HIST 2601, 2602,
MATH 1212, 1321, 2321, 2322.
PHYS 2511, 2512, or 2111,2112 (by permission) CHEM 1111, 1112, 3200, 3301, 3311, 3312, 3411 , 3412, 3601, 3602, 3603, 4111, 4220, 4900, and five additional hours in senior chemistry courses. A maximum of three hours credit in advanced
electives in physics or mathematics can be substituted for equal credit in senior chemistry courses.
Three semester hours from one and six semester hours from another of the following areas: anthropology, economics, geography (excluding earth science courses and GEOG 3501, 3502, and 3511), history (excluding HIST 2601 and 2602), philosophy, political science, psychology, and sociology
One of the following courses: ART 1101; MUHL 1101; THEA 1551.
Physical Education: for detatls see page 48
(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.)
Completion of the requirements for a minor in biology, physics or mathematics.
Electives to bring the total to 132 semester hours.

## Bachelor of Science in Medical Technology

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

Specific requirements for the preparatory curriculum in medical technology and the additional requirements for those working toward a baccalaureate degree are as follow:

ENGL 1101, 1102 with a minimum grade of $C$; and two of the following: $2101,2102,2103,2104$, 2105, 2106
Foreign Language: 6 semester hours in one language HIST 2601, 2602
PSYC 1101 or SOCI 1111 or PHIL 1111
PSYC 1102
MATH 1212

BIOL 1600, 2000, 3070, 3500, 3730, 3800, 4440
CHEM 1111, 1112, 3301, 3302, 3311, 3312, 3400 PHYS 2111, 2112
Two of the following courses Art 1101, MUHL 1101, THEA 1551
Physical Education: see page 48 for details
(NOTE The College of Arts and Sciences accepts a maximum of four semester hours in physical education activity courses toward the fulfillment of its degree requirements.)
(Courses strongly recommended are PSYC 2301. BIOL 4444, COMM 1311, CHEM 4511, MGMT 3110 and 4210)
IMPORTANT NOTE: The preparatory curriculum in medical technology does NOT qualify a student for the three-year pre-professional degree program described on page 49 of this Bulletin. Only those students who enroll in the Schools of Medical Technology of the Baptist Memorial Hospital, the Methodist Hospital, or St. Joseph Hospital, all Iocated in Memphis, can qualify for the degree of Bachelor of Science in Medical Technology from Memphis State University.

## DEPARTMENTAL REOUIREMENTS FOR MAJORS AND MINORS

Listed below are the specific course requirements for all majors and minors offered in The College of Arts and Sciences. A minimum grade of C is required in every course applicable toward a major or minor (including corequisites), except in beginning courses and in sophomore English.
Every student should be aware that the mere completion of courses outlined below with a grade of C or better does not guarantee him classification as a major or minor in the discipline concerned; he must be recommended by the chairman of the department in which the major or minor is sought. If, in the opinion of the chairman, the quality of the student's work is not high enough, he may require additional work, the repetition of courses, or other evidences of acceptable scholarship.

## AFRICAN STUDIES

See /ndependent Programs, page 93

## ANTHROPOLOGY

The Major. 30 semester hours in anthropology courses, including ANTH 1100 or 1300,1200 or 1400, 3200, 4065; and 18 additional semester hours, at least 6 of which must be at the 4000 level.
The Minor: 18 semester hours in anthropology courses, including ANTH 1100 or 1300, 1200 or 1400, 3200, and 4065
Honors Program: see page 99
BIOLOGY
The Major: 36 semester hours in Biology courses, including BIOL 1200, 1600, 2000, 3070, CHEM $1111,1112,3301,3302,3311$, and 3312, and the election of one of the following areas of concentration and the meeting of the specific requirements for that area Completion of both

BIOL 1200 and BIOL 1600 shall be required before enrolling in any upper-division course at 3000 level, or above, which is acceptable for a major
a. BOTANY

BIOL 3240, 3500 and biology electives (chosen in conference with the advisor), including one field course, to bring the total semester hours in Biology to 36 .
b. MICROBIOLOGY

BIOL 3500, 3800, and bioloay electives (chosen in conference with the advisor), to bring the total semester hours in Biology to 36
c. INVERTEBRATE ZOOLOGY OR ENTOMOLOGY
BIOL 3800, 3900, and biology electives (chosen in conference with the advisor), to bring the total semester hours in Biology to 36.
d. VERTEBRATE ZOOLOGY

BIOL 3610. 3620, and biology electives (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 from the upper division. Completion of both BIOL 1200 and 1600 shall be required before enrolling in any upper division course at 3000 level, or above, which is acceptable for a minor. Either 3100 or 4100 may be included in meeting requirements, but not both.

## CHEMISTRY

(The requirements listed below are for majors and minors for the Bachelor of Arts or Bachelor of Science degrees; for detailed requirements for the Bachelor of Science in Chemistry, a professional degree, see page 55.)

## 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 semester hours from the upper division.
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 a three-or-foursemester hour course from the upper division

## PHYSICAL SCIENCE

A major in physical science is suggested for those students who plan to teach the sciences in high school but do not desire to major in either chemistry or physics.

The Major: 32 semester hours in chemistry and physics courses, including CHEM 1111, 1112; PHYS 2511, 2512 (or PHYS 2111, 2112); and additional hours in chemistry and/or physics courses from the upper division 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 division 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 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
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, SOCI 1111 and 3521, PSYC 1101 and 3102, plus courses from one of the following areas of concentration:
a. CORRECTIONS: CJUS $3128,3424,3521$, 4425 , and 4532 plus 6 additional upperdivision hours of criminal justice courses.
b. POLICE: CJUS 3226, 3521, 3522, and 4231; POLS 3211 , plus 6 additional upper-division hours of criminal justice courses
c. GENERAL CRIMINAL JUSTICE: CJUS 3226, $3326,3426,3521$; POLS 4215 ; plus 6 additional upper-division hours of criminal justice courses.
The Minor: 18 hours of criminal justice courses including CJUS 1100.

## ECONOMICS

The Major: 30 semester hours including ECON 1010 or $2110,2120,2130,3310,3320$, MATH 1203, and 15 additional semester hours in economics courses from the upper division as approved by the department chairman. The student has the option of substituting 6 semester hours in approved upper-division social science courses for 6 semester hours in economics from the upper division.
The Minor: 18 semester hours in economics courses, including ECON 1010 or 2110,2120 , 3310,3320 , and 2 additional courses from the upper division as approved by the department chairman.

## ENGLISH

The Major: 24 semester hours in upper-division English courses, 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. Three additional upper-division English courses (9), selections to be made with approval of advisor in light of choices made from first four groups.

The Minor: 15 semester hours in upper-division English courses, including hours as specified from each of the following groups

1. Special Studies (3):
A. Language: ENGL 3501, 4501, or 4602. or
B. Genre: ENGL 3341, $3342,3441,4241$, 4242, 4251, 4252, or 4351
2. American Literature (3): ENGL 3321 or 3322.
3. English Literature (3): ENGL 3211, 3212 , 3213, 3214, 3221, 3222, 3223, or 3224
4. Major Authors (3): ENGL 4231, 4232, 4233. or 4234 .
5. 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 English 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 I as indicated above).

Honors Program: see page 104

## FOREIGN LANGUAGES:

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

1. A single-language concentration in French, German, Latin, Russian*, or Spanish: 18 upper division semester hours
2. A two-language concentration chosen from French, German, Greek, Italian, Latin, Russian, and Spanish: 24 upper division semester hours with a minımum of 9 semester hours in each language.
3. A three-language concentration: All three-language concentrations require prior consultation with and approval of the department charman. 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.
The Minor: 21 semester hours from A and B , below
A Courses numbered 1101, 1102, 2201, and etther 2202 or 2203 (or their equivalents) in the foreign language in which upper division courses are to be taken.
B. 9 upper division semester hours in one of the following languages: French, German, Latın, Greek, Italian, Russian, or Spanısh.

## GEOGRAPHY

The Major: 32 semester hours in geography courses, including GEOG 1101 and 1102 (or Geology 1101), and completion of the re-
*A concentration in Russian requires a collateral foreign language concentration or a collateral major outside the Department of Foreign Languages.
quirements in one of the following areas of concentration:
(a) GEOGRAPHY: 24 semester hours, at least 18 of which must be taken from the upper division. Credit must be shown in each of these areas: regional, topical (systematic), and technique.
(b) CARTOGRAPHY: 24 semester hours, including GEOG 3501, 3502, 4501, 4502, 4511,4521 ; plus 6 hours in regional and/or topical courses.
(c) EARTH SCIENCE: 24 semester hours, including GEOG 4111, 4121, 4122, 4131, 4501,4511 . plus 6 hours in regional and or topical courses.
The Minor: Geography 20 semester hours in geography courses, at least 9 of which must be taken from the upper division.

## HISTORY

The Major. 30 semester hours in history courses, including HIST 1301, 1302, 2601, 2602, and 18 additional semester hours from the upper division with a maximum of 12 semester hours in any one field (United States, Latın American, European, African, Far Eastern)
The Minor. 24 semester hours in history courses, including HIST 1301, 1302, 2601, 2602, and 12 additional semester hours from the upper division.
Honors Program: see page 109

## INTERNATIONAL RELATIONS

See Independent Programs, page 93

## LATIN AMERICAN STUDIES

See Independent Prograrns, page 94

## MATHEMATICAL SCIENCES

The Major 36 to 46 semester hours in mathemati cal science courses including MATH 1321, 2321 , 2322, and 4241 (for departmental honors students, 38 semester hours including MAIH 1401, 1402, 2401, and 2402), CHEM 1111 and 1112 or 2511 and 2512 (for honors students, two approved one-semester courses containing significant mathematical applicatıons, 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 coursesMATH 4261, 4351, 4361 and 4411; and 9 semester hours of upper-division electives in the mathematical sciences
(b) APPLIED MATHEMATICS

MATH 3391, 4350, 4392, and 9 semester hours of upper-division electives in the mathematical sciences.
(c) COMPUTER SCIENCES

MATH 4611 or 4631 plus 24 semester hours from a list which includes all MATH 47courses and the following courses from outside the department. ELEC 3220, 4222; MGMT 4780, 4790.
(d) STATISTICS

MATH 4611, 4612, 4613, 4631, 4710; and 6 semester hours of upper-division electives in the mathematical sciences
The Minor. 18 semester hours in mathematical science courses, comprised of MATH 1321, 2321 , and 2322, and 6 semester hours of upperdivision courses in mathematical sciences
Honors Program: For additional requirements, see page 110

## PHILOSOPHY

The Major: 30 semester hours in philosophy courses including PHIL 1111, 1611, 3001, 3002 and 18 additional semester hours.
The Minor: 18 semester hours in philosophy courses, including PHIL 111, 1611, and 12 additional semester hours.
Honors Program: see page 112

PHYSICAL SCIENCE (See Chemistry)

## PHYSICS

The Major. 32 semester hours in physics courses, including PHYS 2511, 2512 (PHYS 2111, 2112 are acceptable but not recommended) and additional upper-division courses.
CHEM 1111 and 1112.
MATH 1321, 2321, 2322, and 3391, or equivalent courses.
The Minor: 20 semester hours in physics courses, including PHYS 2511, 2512 (PHYS 2111, 2112 are acceptable but not recommended), and additional upper-division courses

## POLITICAL SCIENCE

The Major
POLITICAL SCIENCE: 30 semester hours in political science courses, including POLS 1101. 2211, etther 2301 or 2501, 3100, and a minımum of 18 addrional semester hours at least 15 of which must be from the upper division. Only 9 semester hours of internship courses may be counted toward the 30 semester hour requirement
CONCENTRATIONS No Concentration

## or

PUBLIC ADMINISTRATION 30 semester hours in political science courses, including POLS 1101, 2211, ether 2301 or 2501 , either 3211 or 3224,4101 , and a mınımum of 9 additional semester hours in political science, at least 3 of which must be upper division. Only 9 semester hours of internship courses may be counted toward the 30 semester hour requirement.
The 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 2211, 3213, 3601 and 9 additional semester hours to be selected from the following POLS 3211, 3224, 4213, 4214, 4221, 4224, 4231. 4321, 4602, 4603, 4604, 4611, and 4702.
Honors Program. see page 113

## PSYCHOLOGY

The Major 32 semester hours in psychology courses, including PSYC 1101, 1102, 2301, 2302, 4101, and 16 additional semester hours, of which at least 6 must be from other 3000 level courses and at least 4 must be from 4200 level courses. It is strongly recommended that psychology majors complete all lower division courses prior to enrolling in any upper-division course
The Minor: 20 semester hours, including PSYC 1101, 1102, 2301 (or its equivalent), 2302, and 7 additional hours.
Honors Program. see page 115

## SOCIOLOGY AND SOCIAL WORK

## SOCIOLOGY

IMPORTANT NOTE. The social research mınor 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.
MANPOWER. This concentration is open to the student who majors in socıology 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: $\mathrm{SOCl} 4340,4632$, 4730,4912 ; plus 9 additional semester hours in socrology
URBAN SOCIOLOGY. This concentration is open to the student who elects a double major in Socıology 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. including SOCI 1111

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

## SOCIAL WORK

The Major 30 semester hours including SOCl 1111. SWRK 2911, 3901, 3902, 3903, 3904, 4830; one course in social research and at least six additional hours in Social Work or related fields, to be approved in advance by advisor.

The Minor: 18 semester hours in Socrology and Social Work courses, including SOCI 1111. SWRK 2911, 3901, 3902, and six additional semester hours in Social Work courses

## URBAN STUDIES

See Independent Programs, page 95.

# The College of Business Administration 

JAMES THOMAS THOMPSON, M.B.A., C.P.A., Acting Dean

Room 432, The College of Business
Administration Building

## PURPOSES

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

## Areas of Professional Training

The College of Business Administration offers a wide selection of general and specialized fields, each of which has programs designed to prepare students for a variety of careers:
CAREERS IN ACCOUNTANCY: Accounting is a vital activity in any business. The increased complexity of financial records resulting from federal regulations and the expanded use of automation necessitates a highly technical background for persons who prepare financial reports. It admınisters the testing program of The American Institute of Certified Public Accountants, the national scope of which enables students to check their individual ratings with national averages. Graduates with a major in accounting are qualified to take the Certified Public Accountants' examination in Tennessee; students desiring a career in public accounting are encouraged to intern with a public accounting firm in their senior year.
CAREERS IN ECONOMICS: A sound understanding of our economic system is essential for today's businessman. In addition, business employs the professional economist for forecasting and explaining the effect of changing economic variables. Many economists are employed by government for comparable reasons. Training in economics is designed to increase awareness of eco-
nomic 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: One of the phenomena observed among college graduates is their frequent gravitation toward careers in marketing despite the field for which they prepared while in college. 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 logis-
tics, 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 on page 77 . For information concerning careers in this field students should see the chairman of the Department of Distributive Education.

CAREERS AS PROFESSIONAL SEC. RETARIES AND OFFICE MANAGERS: The value of a secretary, either man or woman, with a university degree is receiving increasing recognition by business executives; the same thing is true in the field of office management. 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, by completing the certification requirements as outlined on page 77 of this Bulletin, qualify for a high school teaching certificate.

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 in the section beginning on page 62. 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 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 particular goal.

## 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 equipped with electronic calculators which are used by students when studying business statistics; and one up-todate, modern, electronic, computerlinked 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 CossittGoodwyn Technical Library of Memphis can be obtained on a loan arrangement.

## Center for Manpower Studies

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

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

## ADMISSION

Requirements for admission to The College of Business Administration are those set up for the University as a whole; see page 22.

## RESIDENCE REQUIREMENTS

Residence requirements for a degree in business administration are as follow: The senior year must be in residence; at least 33 hours of upper-division business courses must be taken at Memphis State University; 12 of these hours must be in the major field.

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

University residence requirements are explained in detail on page 48.

## ACADEMIC PROGRAMS

The following outline lists the major and areas of concentration for each department in The College of Business Administration.

THE COLLEGE OF BUSINESS ADMINISTRATION

| Department | Major | Concentration Within Major | Degree Offered (B.B.A.) |
| :---: | :---: | :---: | :---: |
| Accountancy | Accounting |  | Bachelor of Business Admınıstration |
| Economics | Business Economics |  | Bachelor of Business Administration |
| Finance, Insurance, Real Estate | Finance |  | Bachelor of Business Administration |
|  | Insurance |  | Bachelor of Business Administration |
|  | Real Estate |  | Bachelor of Business Administration |


| Department | Major | Concentration Within Major | Degree Offered (B.B.A.) |
| :---: | :---: | :---: | :---: |
| Management | Management | (1) General Management <br> (2) Manpower Management <br> (3) Production Management <br> (4) Personnel Administration and Industrial Relations <br> (5) Quantitative Methods and Business Systems | Bachelor of Business Administration |
| Marketing | Marketing | (1) Advertısıng (Marketıng Communications) <br> (2) Marketıng Management <br> (3) Retailing <br> (4) Sales <br> (5) Transportation and Logıstics | Bachelor of Business Admınıstration |
| Office Administration | Office Administratıon | (1) Secretarial <br> (2) Office Management | Bachelor of Business Administration |
| Interdisciplinary Program | International Business |  | Bachelor of Business Administration |

## Degree Requirements

The College of Business Administration offers the degree of Bachelor of Business Administration. To qualify for this degree the student must complete 132 semester hours with a quality point average of 2.0 (on a scale in which A counts as 4 quality points; B, 3; C, 2; and D, 1). A grade of C or better must be earned for each course required for the major. A student majoring in The College of Business Administration is not required to have a minor.

All courses used to satisfy specific degree requirements of this college must be taken on a "letter-grade credit" basis or "credit by examination." Hours earned on a "Credit-No-Credit" basis are accepted only in courses which are designated as electives in the student's degree program (see page 42). Courses taken on an "Audit" basis cannot be used to satisfy college requirements.

A student transferring credits from a two-year collegiate institution must complete a minimum of 60 semester hours in an accredited senior institution (see page 48). If a student transfers credit on business courses which are classified as upper division level courses at this college, but were taken as lower division credit or taken at a two-year institution, these courses will be repeated, validated by examination, or replaced with cther upper division business courses.

Application for graduation must be submitted to the Graduation Analyst of the College soon after the student enrolls for his or her last semester before graduation (See Schedule of Classes for final date).

General Requirements for the degree include the successful completion of the following:
I. Required Courses in the Lower Division.

A student majoring in The College of Business must have earned a minimum of 55 hours of course work before he or she may be allowed to take any upper
division courses in The College of Business Administration.

## II. Required Core Courses in the Upper Division.

## III. Required Courses for a Major in the College of Business Administration.

A minimum of $40 \%$ ( 53 courses) of the 132 semester hours required for the degree must be from outside business and economics (except for the Principles of Economics) and a minimum of $40 \%$ (53 hours) of the 132 semester hours required for the degree must be taken within the college. At least 51 hours must be in business courses from upper division or other approved business related upper division courses (those numbered above 2999).

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

## I. REQUIRED COURSES IN THE LOWER DIVISION (Courses numbered 1000 through 2999):

(Figures in parentheses indicate semester hours credit. One-semester courses may be taken either semester.)

## First Semester

See Note A
English 1101 (3)
Speech 1311 (3)
Science (See Note B)
Management 1010 (3) (See Note C)
P.E. Activity (2) (See Note D)
A Non-Business
elective course (3)

## Second Semester

English 1102 (3)
Mathematics 1203 (3) (See Note E)
Science (See Note B)
See Note F. (3)
P.E. Activity (2)
(See Note D)
A Non-Business
elective course (3)

Third Semester
Accounting 2010(3)
English 210-(3) (See Note G) History 2601 (3)
Economics 2110 (3)
A Non-Business elective course (3)

Fourth Semester
Accounting 2020 (3)
English 210- (3) (See Note G) History 2602 (3) Economics 2120 (3) Management 2750 (3) (Data Processing)
A Non-Business elective course (3)

Notes:
A. It is recommended that all business students have a typewriting ability. Those who do not have this skill are strongly encouraged to enroll in a typewritıng course.
B. The two science courses required do not have to be in the same discipline, but must have laboratory hours. (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 hours required for the BBA degree.
E. 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, should start with MATH 1000
F. One of the following is required. PSYC 1101, SOCI 1111 or POLS 2211.
G. Any two courses from English 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:

## (PREREQUISITE: JUNIOR STANDING)

ECON 3610
FIR 3011
FIR 3130

FIR 3410
MGMT 3710
GMT 3711
MGMT 3110
MGMT 4710
MKTG 3010
OFAD 3510

## III. THE MAJOR

With the assistance of his advisor, each student, not later than the beginning of his funior 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.THE MINOR

A student majoring in the College of Busıness Administration is not required to have a minor; however, he or she 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 page 48.)

## PRE-PROFESSIONAL BUSINESS ADMINISTRATION MINOR

The College of Business Administration offers a pre-professional minor ( 24 hours) for students whose major is in another College of the University. Requirements are as follow

ACCT 2010, 2020-Fundamentals of Accountıng I and II
ECON 2110, 2120-Principles of Economics I and II FIR 3011-Business Law or FIR 3130-Legal,

Social and Political Environment of Busıness FIR 3410-Business Finance
MGMT 3110-Organization and Management MKTG 3010-Basic Marketıng

Prerequisites: Accounting. Economics, and Junior standing are prerequisites for 3000 level courses

## Departmental Requirements for Majors and Minors <br> DEPARTMENT OF ACCOUNTANCY

The objective of the Department of Accountancy is to provide the graduate with a substantial background in accountancy which will enable him to adjust himself to any accounting situation and to advance rapidly in government, industry, or public accounting practice. The curriculum is designed to enable the student to achieve mastery of the generally accepted accounting principles and procedures as they are applied in all fields of accounting trends and techniques and the current controversial topics in his profession.

An accounting major or minor must have a grade of $C$ or better in every course attempted in The Department of Accountancy.

The Major. ACCT 2720 (Laboratory) and 24 semester hours in upper-division accounting courses as follow:
3110 and 3128, Intermediate Accounting 1 and II
3310, Cost Accounting
3510, Federal Income Tax I
4210, Advanced Accountıng
4240, Auditing
4450. Accounting Systems
4610. Seminar in Accountıng

The Minor:
For the student whose major is in another college of the University:
2010 and 2020, Fundamentals of Accountıng
2720, Accountıng Laboratory
3110, Intermediate Accounting I
3120, Intermediate Accounting II
Select one of the following
3010. Managerial Accountıng or

3310, Cost Accounting

## 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

The Major in Economics (THE COLLEGE OF
BUSINESS ADMINISTRATION): a minımum of
21 semester hours in upper-division courses,
as follows
3210, Labor Economics
4111, Economics of Business Enterprise
3310, Microeconomic Theory
3320, Macroeconomic Theory
Three additional upper-division courses se-
lected with the approval of the department chairman
The Major in Economics (THE COLLEGE OF ARTS AND SCIENCES) The student will be required to meet the requirements for the Bachelor of Arts degree plus the specific major requirements:

## 1010 or 2110,2120

3310, Microeconomic Theory
3320, Macroeconomic Theory
Six additional upper-division courses, for a total of 30 semester hours, selected with the approval of the department chairman.
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 2 additional courses from the upper division as approved by the department chairman
For students whose majors are in the College of Business Administration:
Three additional upper division courses in Economics approved by the department chairman.

## DEPARTMENT OF FINANCE, INSURANCE, AND REAL ESTATE

The primary objective of the department is to provide the student 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 give each student a broad background to function effectively 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 to
assist students in passing 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 minimurn of 21 semester hours in upper division courses as follows:
FIR 3710, Investments
FIR 3720, Financial Markets
FIR 4440, Managerial Finance
FIR 4610, Cases in Managerial Finance
Three additional upper division courses selected with the approval of the advisor.
The Minor
For the student whose major is in the College of Business Administration:
Three upper division courses in Finance approved by the department chairman.
For the student whose major is within another college of the University:
ACCT 2010 and 2020, Fundamentals of Accountıng
ECON 2110 and 2120 , Economics I and II
ECON 3610, Money and Banking
FIR 3410, Business Finance
FIR 3710, Investments
One additional upper division course approved by the department chairman.

## INSURANCE

The Major A minimum of 21 semester hours in upper-division courses, as follows:
FIR 3810, Principles of Risk and Insurance FIR 4810, Property and Casualty Insurance FIR 4820, Life and Health Insurance
A minimum of 4 additional upper division courses selected with the approval of the advisor.
The Minor
For the student whose major is in the College of Business Administration:
FIR 3810, Princıples of Risk and Insurance
Two additional upper division courses in Insurance approved by the department chairman.
For the student whose major is within another college of the University:
ACCT 2010, Fundamentals of Accounting
ECON 2110 , Economics I
FIR 3011 , Business Law
FIR 3130, Legal, Social and Political Environment of Business
FIR 3810, Principles of Risk and Insurance
Two additional upper division courses in Insurance approved by the department chairman.

## REAL ESTATE

The Major: A minimum of 21 semester hours in upper-division courses, as follows:
FIR 3310, Real Estate
FIR 4310, Real Estate Law
FIR 4320, Real Estate Finance
FIR 4340, Real Estate Appraisal
A minimum of 3 upper division courses selected with the approval of the advisor.
The Minor:
For the student whose major is in the College of Business Administration:

## FIR 3310, Real Estate

Two additional upper division courses in Real Estate approved by the department chairman. For the student whose major is within another college of the University:

ACCT 2010, Fundamentals of Accounting
ECON 2110 , Economics I
FIR 301 1, Business Law
FIR 3130, Legal, Social and Political Environment of Business
FIR 3310, Real Estate
Two additional upper division courses in Real Estate approved by the Department chairman.

## DEPARTMENT OF MANAGEMENT

he effective manager of today must have -ompetence in many disciplines, an inderstanding of a wide variety of relaionships, and the ability to analyze evolving management requirements. Repardless of his functional speciality, the brofessional manager must also be a eader of people who knows how to put ogether 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, oopulations, 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; (4) quantitative methods and business systems, and (5) manpower management.
Students selecting the area of general management will focus on integration of operations and environments. This option is designed for those students who desire a program which allows for flexibility in the choice of careers in management.
The personnel administration and industrial relations option covers the traditional areas of personnel, collective bargaining, labor legislation, wage and salary administration. Also developments in the behavioral sciences are included in this area.
The production and operations management option is concerned with planning and operations systems to yield products and services. Production operations in non-manufacturing industries are considered as well as those of manufacturing firms.
Quantitative methods and business systems involve the use of mathematical and statistical techniques to solve business problems. Such techniques often require the utilization of computers for their solution. Thus this curriculum incorporates three related areas of study: Statistics, mathematical methods (operations research), and computer utilization.
The manpower management program sponsored by the Department of Manage-
ment and the Center for Manpower Studies is designed for those students whose career objectives encompass public administration of human resource programs. The manpower management option is concerned with the planning, administration and effective management of public manpower policy and the optimum use of human resources in the private sector.

The Major in Management. a minimum of 21 semester hours in upper division courses as described in the following concentration areas

## GENERAL MANAGEMENT

MGMT 4210, Personnel Admınistration
MGMT 4420, Human Relations in Organizations MGMT 4510, Production Management
ACCT 3010, Managerıal Accountıng
FIR 4440, Managerial Finance
The remaining 6 hours of the 21 hours minımum for the major may be selected from any upper division courses in the Department of Management OR approved upper division courses in The College of Business Admınıstration.

## PERSONNEL ADMINISTRATION AND INDUSTRIAL RELATIONS

MGMT 4210, Personnel Admınistration
MGMT 4220, Collective Bargaınıng
MGMT 4230, Labor Legislation
MGMT 4240, Wage and Salary Administration MGMT 4420, Human Relations in Organizations
The remainıng 6 hours of the 21 hour minimum for the major may be selected from any upper division courses in the Department of Management OR other approved upper division courses.
Recommended courses include:
MGMT 3215, Industrial Relations
ECON 3210, Labor Economics
FIR 4440, Managerial Finance
PSYC 3301, Industrial and Organızatıonal Psychology
PSYC 4301, Psychological Testıng
TECH 3386, Industrial Safety
The Major in Management a mınımum of 21 semester hours in upper division courses as described in the following concentration areas:

## GENERAL MANAGEMENT

MGMT 4210, Personnel Administration MGMT 4420, Human Relations in Organizations MGMT 4510, Production Management ACCT 3010, Managerıal Accountıng FIR 4440, Managerial Finance
The remaining 6 hours of the 21 hours minımum for the major may be selected from any upper division courses in the Department of Management OR approved upper division courses in The College of Business Admınistration.

## PERSONNEL ADMINISTRATION AND <br> INDUSTRIAL RELATIONS

MGMT 4210, Personnel Administration
MGMT 4220, Collective Bargaining
MGMT 4230, Labor Legislation
MGMT 4240, Wage and Salary Admınıstration MGMT 4420, Human Relatıons in Organizations The remaining 6 hours of the 21 hour minımum for the major may be selected from any upper division courses in the Department of Management OR other approved upper division courses.
Recommended courses include
MGMT 3215, Industrial Relatıons
ECON 3210, Labor Economics
FIR 4440. Managerial Finance
PSYC 3301, Industrial and Organizatıonal Psychology
PSYC 4301, Psychologica! Testıng
TECH 3386, Industrial Safety

PRODUCTION MANAGEMENT
MGMT 4420, Human Relations in Organizations MGMT 45 10, Production Management I ACCT 3010, Managerial Accountıng
The remaining 12 hours of the 21 hour minimum for the major may be selected from any upper division courses in the Department of Management OR other approved upper division courses.
Recommended courses include
MGMT 4760, Operations Research
ACCT 3310, Cost Accounting
MKTG 4200, Purchasing
Up to two courses from the following:
TECH 4460, Motion and Time Analysis
TECH 4462, Inspection and Quality Control
TECH 4464, Production Control
TECH 4466, Plant Layout

## QUANTITATIVE METHODS AND BUSINESS SYSTEMS

MGMT 4420, Human Relations in Organizations MGMT 4790, Information - Systems for Management
At least 6 hours must be selected from
MGMT4711, Intermediate Statistical Analysis
MGMT4750, Computer Programming Principles and Applications
MGMT4760, Operations Research
MGMT4780, Systems Design for Business Activities
The remaining 9 hours of the 21 hour minımum for the major may be selected from any upper division courses in the Department of Management OR other approved upper division courses
Recommended courses include
ACCT 3010, Managerial Accounting
ACCT 3310, Cost Accountıng
ECON 4111, Managerial Economics
ECON 4120, Economic Forecasting
MKTG 4080, Marketing Research

## MANPOWER MANAGEMENT

ECON 3810, Manpower Program Planning
ECON 3811, Manpower Program Administration MGMT 4210, Personnel Administration
MGMT 4420, Human Relations in Organizations
The remaining 9 hours of the 21 hour mınimum for the major may be selected from any upper division courses in the Department of Management OR other approved upper division courses.
Recommended courses include
MGMT 4220, Collectıve Bargaınıng
MGMT 4230, Labor Legislation
MGMT 4240, Wage and Salary Administration
ECON 3210, Labor Economics
POLS 3601, Public Administration
SOCI 4610, Population
The Minor in Management.
For the student whose major is within another

## college of the University.

ACCT 2010 and 2020, Fundamentals of Accounting
ECON 2110 and 2120, Economics I and II
FIR 3410 , Business Finance
MGMT 3110 , Organization and Management
One approved upper-division course in Management approved by the department chaıman.
For students whose major is in other departments in The College of Business Administration:
Three additional upper division courses in Management approved by the department chaıman.

## DEPARTMENT OF MARKETING

The objective of the Department of Marketing is to provide the student with a broad concept of the marketing process and to develop an understanding of all the factors involved in the assembly and
distribution of goods and services.
Marketing majors may choose from among five areas of a concentration as outlined below. Four of the areas lead to specific career areas in the field of marketing. Emphasis is placed upon the practical application of marketing concepts. This approach provides market majors with entry level skills while preparing them for future advancement to top positions in marketing management.

The Major: a minimum of 21 semester hours in upper division marketing courses, as follows 3012, Consumer Behavior
3610, Transportation Fundamentals
4080, Marketıng Research
4901, Marketıng Strategies
Three additional courses in one of the marketıng areas listed below

ADVERTISING (Marketıng-Communicatıons) designed to provide an understanding of mass communication media, advertisıng agencies, advertising departments, advertising decisions, and other advertising activities.

3140, Advertising Fundamentals
3170, Advertısing Problems
4150, Advertısing Medıa and Campaıgns
TRANSPORTATION ANDLOGISTICS. designed to provide a background for students desiring careers with transportation companies, industrial firms or governmental agencies Courses develop an understanding of the interfaces among the nation's transportation system, the firm's logistics network, and public policy Total of nine hours selected from these courses
3-6 hours from:
3620, Logistics Plannıng and Analysis (3)
3630, Traffic Management (3) plus
3-6 hours from
4610, Transportation and Policy Alternatives (3)
4620, Carrier Management (3)
4692, Seminar in Transportation and Logistics (3)

MARKETING MANAGEMENT. allows a concentration in marketing without specialization (A mınımum of 9 semester hours, at least 3 hours at the 4000 course level).

3140, Advertising Fundamentals
3320, Retailing Fundamentals
3620, Logistics Planning and Analysis
4410, Sales Management
4530, Internatıonal Marketıng
RETAILING This concentration gives the student a background in the operation and management of retail establishments 3320, Retailing Fundamentals
3330, Retail Merchandisıng Management 4330. Credit and Collections

SALES This concentration gives the student a thorough grounding in the field of sales from basic salesmanship through sales management, the subject matter is approached from both theoretical and practical aspects.

3410, Sales Fundamentals
4410. Sales Management

4420, Sales Traınıng
ELECTIVES
3430, Sales Promotion
3510, Marketıng of Services
3520, Contractual Marketıng Systems 4910, Problems in Marketıng 4991, Marketıng Internshıp

## The Minor.

For the student whose major is in another college of the University:
ACCT 2010 and ECON 2110, and etther
(1)MKTG 3010 and the 12 -semester hour marketing core; and one course from a specıal area; or
(2)MKTG 3010, 6 semester hours from the marketıng core, and 9 semester hours from a specific area

## DEPARTMENT OF OFFICE ADMINISTRATION

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

The student planning to major in office administration will take in his freshman year OFAD 1210 and 1220. Elementary Typewritıng and Intermediate Typewriting. If he has had previous training in typewriting, he will omit 1210 and take 1220 and a higher-numbered typewriting course, or one semester of an approved elective.

The student planning an area of concentration in office administrationsecretarial will take in his sophomore year OFAD 2120 and 2130 , Fundamentals of Shorthand and Intermediate Shorthand. If he has had previous training in shorthand, he will omit 2120 and take 2130 and a higher-numbered shorthand course, or one semester of an approved elective. Students planning an area of concentration in office adminis-tration-management may omit shorthand from their programs.
No more than three courses ( 9 semester hours) in typewriting may be applied toward satisfaction of the degree requirements by a student with high school credit in typewriting.

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

The Major in Office Administration-Secretarial Concentration. a minimum of 21 semester hours of upper division office administration courses, as follows:
3140. Advanced Shorthand I

3250, Advanced Typewriting
4270, Secretarial Typing and Office Machines 4320, Applied Secretarial Practice
4330, Records Management and Control
Two of the following courses, selected in conference with advisor.
4161-63, Technical Dictation (4161, Legal; 4162, Medical; or 4163 . Scientific)
4340, Office Model Simulation
4400, Data Processing for Secretaries and Education
4410, Office Management

The Minor in Office Administration-Secretartal Concentration:
For the student whose major is in another college of the University:
1210 and 1220, Elementary Typewriting and Intermediate Typewriting
2120 and 2130 , Fundamentals of Shorthand and Intermediate Shorthand
3140, Advanced Shorthand
Two or three additional approved upper division courses in office admınıstration approved by the department chairman.
(If the student can demonstrate proficiency in ether typewriting or shorthand, he may omit ether OFAD 1210 or 2120 , thus reducing the hours required for the minor from 21 to 18; a minımum of 18 semester hours is required)

For the student with a major in other departments of The College of Business Administration:
Three additional upper division courses in Office Administration approved by the department chairman.
The Major in Office Administration-Managerial Concentration: a mınımum of 21 semester hours of upper-division courses as follows. 4320, Applied Secretarial Practice
4330, Records Management and Control
4400, Data Processing for Secretaries and Educators
4410, Office Management I
ACCT 3010, Managerıal Accountıng
Two of the following courses, selected in conference with advisor:
MGMT 4210, Personnel Administration
MGMT 4420, Human Relatıons in Organızations
MGMT4750, Computer Programming Principles and Applicatıons
FIR 4610 , Cases in Managerial Finance
MKTG 4330, Credit and Collections
ECON 4111 , Managerial Economics
The Minor in Office Administration-Management Concentration:
For the student whose major is in another college of the University.
ACCT 2010 and 2020, Fundamentals of ACcounting
ECON 2110 and 2120, Economics I and II OFAD 3510, Business Communicatıons OFAD 4410, Office Management
Two additional upper division 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 the participating student with a broad interdisciplinary background which will prepare him 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.

The Major in International Business
The student majoring in Internatıonal Business must complete the same courses required of all students working toward the B B.A. degree. For additional requirements during the sophomore and junior years, see the International Business advisor It is recommended that he plan his program so as to acquire a working knowledge of a foreign language.
In his senior year, the student will take 21 semester hours in courses offered by The

College of Busıness Admınıstratıon, distributed as follow: 15 semester hours ( 5 courses) from the following group:
ACCT 4310, Internatıonal Accounting 8A 4000, Internship in International Business ECON 4340, Comparative Economic Systems ECON 4350, Internatıonal Economics
FIR 4550, International Finance
MGMT 4810, Internatıonal Management
MKTG 4530. International Marketıng
6 semester hours ( 2 courses) from the following
group.
ECON 4111 , Managerial Economics
ECON 4120, Economic Forecastıng
FIR 4440, Managerial Finance
MGMT4760, Operatıons Research
MGMT47B0. Systems Design for Business Activities
MKTG 4080, Marketıng Research
Two courses from the College of Arts and Sciences are also required in the senior year See the advisor

# The College of Communication and Fine Arts 

RICHARD R. RANTA, B.S., M.A., Ph.D. Dean

## PHILOSOPHY

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

The kind of symbolic experience which communicates, emerges when, in Ruskin's phrase, "the hand, the head and the heart of man go together." Students in The College of Communication and Fine Arts receive individual and small group instruction toward this end. In the hope of furthering the capacity to impose a pattern on experience and to recognize the patterns offered by others, students of the college are additionally exposed to courses drawn from a broad base of the liberal arts
The faculty of the college represents a diversity of academic and artistic backgrounds and interests, reflected not only in its teaching, but also in research and creative activities. It is a faculty united in the attempt to maintain the highest standards in both classroom and studio work, standards which find their limits at last only in the mystery and wonder of the human experience from which they rise.

## PURPOSES

The College of Communication and Fine Arts has four primary functions. First, it offers courses of study aimed at preparing its students to work toward careers in the fine or applied arts, communications, or the performing arts, whether as practitioners, teachers, artists, or consultants. Second, the college affords broad exposure and instruction in fine arts and communication to students of other colleges in the University whose
degree programs may be enhanced by such exposure. Third, with a view toward individual professional growth as well as general cultural enhancement, the college vigorously promotes both scholarly research and artistic production on the part of its faculty. Finally, the college seeks to enrich the cultural atmosphere of both the University and the community at large through a continuing variety of public programs, to include art exhibitions, media presentations, dramatic productions, concerts, recitals, lectures, seminars, debates, workshops, festivals, and the like.

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

## ORGANIZATION

The College of Communication and Fine Arts comprises four academic departments: Art, Journalism, Music, and Theatre and Communication Arts. The requirements for the majors and minors offered by these departments are listed in the section beginning on page 67 .

## ADMISSION

The requirements for admission to the College of Communication and Fine Arts are those established by the University as a whole; see page 22. See the descriptions of the specific degree requirements for any special admissions requirements.

## RESIDENCE REOUIREMENTS

University residence requirements are explained in detail on page 48. A transfer student in The College of Communication and Fine Arts must earn at least 6 semester hours in residence in his major subject and at least 3 semester hours in
his minor. These credits may be earne only through regular class enrollment fo a letter grade.

## ACADEMIC PROGRAMS <br> Degrees Offered

A student may earn a Bachelor of Fin Arts, Bachelor of Music, or Bachelor Arts, by majoring in one of the fot departments which comprise The Colleg of Communication and Fine Arts. Re quirements for the Bachelor of Fine Art and the Bachelor of Music degrees ar outlined in the section beginning on pag 67. The Bachelor of Music Educatio degree is jointly administered with Th College of Education. Requirements for this degree are outlined on page 80 . Th following is an outline by departments " all majors and concentration areas o fered by the departments in the College Communication and Fine Arts.

A minimum grade of $C$ is required $i$ every course applicable toward a major o minor (including corequisites), except $i$ beginning courses and in sophomor English.

Every student should be aware that th mere completion of courses outline below with a grade of $C$ or better does n guarantee him classification as a major minor in the discipline concerned; must be recommended by the chairma of the department in which the major o minor is sought. If, in the opinion of th chairman, the quality of the student' work is not high enough, he may requir additional work, the repetition of course or other evidences of superior scholar ship.

The college requires a minimum of fou semester hours of physical educatio activity courses, one-half of which min imal requirement may be satisfied by tw semester hours of Marching Band. student may elect to take the courses on credit/no credit basis. No student ma count more than eight physical activit credit hours toward the completion of hi degree.

## THE COLLEGE OF COMMUNICATION AND FINE ARTS

| Department | Major | Concentration Within Major | Degree Offered |
| :--- | :--- | :--- | :--- |
| Art | Art | (1) Art Educatıon <br> (2) Graphic Design <br> (3) Interior Design <br> (4) Ceramics, Paıntıng, Sculpture, <br> Printmaking <br> (5) Design | Bachelor of Fine Arts (B.F.A.) |
|  |  |  |  |
|  |  | Art History |  |


| Department | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Journalism | Journalism | (1) Advertising <br> (2) Broadcast Journalism <br> (3) News Editorial <br> (4) The Magazıne <br> (5) Press Photography <br> (6) 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 (Vorce) (Opera) <br> (11) Woodwinds | Bachelor of Music (B.M.) |
|  | Applied Music |  | Bachelor of Arts (B.A.) |
| Theatre and Communication Arts | Theatre and Communication Arts | (1) General Speech <br> (2) Radı-TV-Film <br> (3) Rhetoric and Communication Arts <br> (4) Theatre | Bachelor of Arts (B.A.) |
|  | Theatre | (1) Performance <br> (2) Production | Bachelor of Fine Arts (B.F.A.) |

## 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 beginning on page 49. An application to enter the teacher education program must be filed with the education analyst, room $211-\mathrm{A}$, The College of Education.

## DEGREE REQUIREMENTS

## Bachelor of Fine Arts (in Art)

The Bachelor of Fine Arts in Art is a professional degree, the requirements for which provide the student with a greater opportunity for specialization in art than he has under the other baccalaureate programs; for this degree a total of 142 semester hours is required for graduation, 90 of which must be in professional course work. A minimum of 42 upper division semester hours is required for this degree. A minimum grade of C is required in all art courses; the student must maintain an overall quality point average of 2.0 (on a scale in which a grade of $A$ has a quality point value of $4 ; B$, 3; C, 2; and D, 1). 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

ENGL 1101,1102 with a mınımum grade of C; and two of the following 2101, 2102,2103, 2104, 2105, 2106
Foreign language: 6 semester hours in one language.
HIST 2601, 2602
Two-semester sequence course 16 semester hours or more) in biology, chemistry. GEOG 1101, 1102, GEOG 1101, GEOL 1101, GEOL 1101, 1201; PSCI 1031, 1032, or physics
One-semester course ( 3 semester hours) MATH 1181, 1182, 1203. 1211, or 1212.
Physical Educatıon. for detaıls see page 48
(Art education majors must also complete all general education courses outlined in section II of the Requirements for Teacher Certification as listed on page 75
2. BASIC ART COURSES

ART 1311, 1314, 2313 (Drawing).
ART 1201, 1204, 2201, 2202 (Design).
ART 2101, 2102 (Art History)
Art History 12 semester hours in upper division art history courses. (Students in Interior Design are required to take ART 3101, 3102, in Art Education, students are required to take only ART 4167 and 4168 .)
3. CONCENTRATION AREAS:
a. Ceramics, Painting, Printmaking, and Sculpture:
ART 2314, 4321 (Drawing and Paıntıng).
ART 3523, 3524, 4521, 4522 (Ceramics)
ART 2351, 3351, 4351 (Prıntmakıng).
ART 2511, 3511, 4511 (Sculpture).
ART 3331, 3332, 4331, 4332 (Painting)
ART 4621, 4622 (Workshop)
ART 4611 (Senior Problem).
NOTE: Selection of fourteen (14) appropriate courses from the nineteen (19) courses listed above
b. Graphic Design:

ART 2213 (Lettering and Layout).
ART 2221 (Graphic Production). ART 2311 (Perspective)

ART 2351 (Printmaking)
ART 3221, 3222, 4221, 4222 (Graphıc Desıgn).
ART 3223 and 3541 (Packaging and Display)
ART 4321 (Drawing and Painting).
ART 4341, 4342 (IIlustration).
ART 4611 (Senior Problem).
c. Interior Design:

ART 2311 (Perspective).
ART 2231, 2232, 3231, 3232, 4231, 4232 (Interıor Design).
ART 4233, 4234 (Interior Rendering)
ART 4235, 4236 (Interıor Design Research)
ART 4551, 4552 (Working Drawings).
ART 4611 (Senior Problem).
d. Art Education:

ART 2314, 3523, (Drawing and Ceramics)
ART 3411, 3413, 3412, 4421, (Art Education) ART 4424 (Fibers).
EDFD 2011, EDPS 2111 and 3121, ELED 4821 , SCED 4441 and 4841.

## e. Design:

ART 4201-4202 (Advanced Design-Plastics)
ART 4203-4204 (Advanced Design-Kinetics) ART 4205-4206 (Advanced Design-Continuous Pattern Design)
4. ART ELECTIVES to complete the total of 90 semester hours.
5. ELECTIVE COURSES other than art to complete the total of 142 semester hours. These courses will be chosen by the student in consultation with his advisor and the chairman of the Department of Art.

## Bachelor of Fine Arts (in 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 student will normally begin his specialized training at the beginning of his junior year

## ADMISSION

Admission to the B.F.A program in Theatre Arts is based on selective procedures.

Entrance into the Performance area is based on auditions and interview. The audition/interviews are held twice yearly, near the end of each semester. The audition will consist of two scenes of approximately two minutes duration each for a total of no more than five minutes. The scenes should be from plays of distinctly different styles and / or periods.

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

An interview is also required for admission to the Production area. The student will submit a portfolio of his graphic work. This may consist of sketches, costume plates, elevations, light plots, ground plans, etc. Should the student not possess such a portfolio, the student may be requested to execute a relatively simple design project in his selected area of study.

## REMAINING IN THE B.F.A. PROGRAM

The fact must be emphasized that admission to the B.F.A. curriculum does not imply a student's permanent tenure in the program. At the end of each semester the student is expected to audition and his work will be assessed by the theatre faculty. His artistic growth, his development of technical facility, his continuing commitment to creative excellence-all will be evaluated. Permission to continue in the program will be based upon this evaluation.

## TRANSFER OF CREDIT

In certain cases students may be admitted to an advanced level of the B.F.A. trainıng program. Such admission will be based upon: (1) an audition and interview; (2) the student's previous course work in theatre, particularly in the area of his special interest; (3) the student's previous
involvements in production experience; (4) letters of recommendation from former Theatre Arts instructors and/or dırectors. Even if admitted to an advanced standing, the student will be required to remedy previous course deficiencies.

## ADVISING

Upon admission to the B.F.A. program, each student will be assigned a faculty advisor.

For this degree, 146 semester hours are required for graduation, at least 97 of which must be in theatre courses. A minimum grade of $C$ is required in all theatre courses; the student must maintain an overall quality point average of 2.0.

1. GENERAL EDUCATION COURSES:

ENGL 1101, 1102 with a minimum grade of C ; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106
Humanities
HIST 2601, 2602
Natural/Physical Sciences
Mathematics or PHIL 1611
Physical Education (THEA 2501 or 2502 may be substituted for one (1) PE. course)
2. BASIC THEATRE CORE COURSES:

COMM 1211 Voice and Articulation
THEA 1411 Interpretation of Literature
(3)

THEA 1561 Introduction to Design (3)

THEA 2501 Stage Movement
THEA 2511 Crafts
(3)

THEA 2512 Introduction to Theatre Graphics
THEA 2531 Basic Acting Techniques
(3)

THEA 3521 Directing
THEA 3541 Performance Lab (3)
(3)

THEA 3541 Performance Lab (1)

THEA 3542 Production Lab
THEA 4551 Theatre History-Classic
THEA 4552 Theatre History-Modern (3)

THEA 4582 Analysis of Dramatic Literature
3. 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 (actıng, stage movement and dance, directıng, oral interpretation, playwriting, design, theatre technology, management) will determine sequence structure. FOR EXAMPLE:
a. Performance (Actıng Sequence)

THEA 2502 Theatre Dance
THEA 2532 Character Development
THEA 2515 Stage Makeup
THEA 3542 Performance Lab
THEA 3411 Performance of Poetic Forms
THEA 3451 Directing Interpreter's Theatre
THEA 3505 Stage Combat
THEA 3506 Mime Basics
THEA 3531 Scene Study
THEA 3532 Advanced Scene Study THEA 4541 Internship
THEA 4502 Ensemble Movement
THEA 4531 Actıng Styles
THEA 4581 Dramatic Theory and Criticism(3)
b. Production (Design/Theatre Technology Sequence)

$$
\begin{equation*}
\text { THEA } 3542 \text { Production Lab } \tag{3}
\end{equation*}
$$

THEA 3511 Stagecraft I
THEA 3512 Stagecraft II
THEA 3513 Lighting and Sound Mechanics
THEA 3561 Scene Design
THEA 4562 Costume Design
THEA 4567 Lighting Design
THEA 4569 Styles of Design
THEA 4564 Scenography
THEA 4541 Internship
THEA 4565 Applied Design
THEA 4515 Scene Paintıng
THEA 4516 Technical Direction THEA 4517 Materials and Technology
THEA 4518 Special Technologies THEA 4591 Theatre Management

## 4. ELECTIVES

Elective courses chosen in conference with the student's advisor to complete the total of 146 semester hours.
NOTE: THEA 4541 Internship (see course description on page 132). The intent of this degree requirement and course is to provide the student experience in a full time theatre production situation. Off-campus participation (usually following the junior year) is an essential element of the B.F.A. degree program. Detalls are to be planned in advance in conference with the student's advisor.

## Bachelor of Music

The Bachelor of Music is a professional degree, the requirements for which provide the student with a greater opportunity for specialization in music than he has under the other baccalaureate programs; as many as 92 of the 132 semester hours required for graduation may be in music. A minimum grade of C is required in all upper division music courses; the student must maintain an overall quality point average of 2.0 (on a scale in which a grade of $A$ has a quality point value of $4 ; B, 3 ; C, 2$; and $D, 1$ ). The specific degree requirements are divided into five groups: (1) general education, (2) basic music courses, (3) courses required for one of the eleven concentrations as outlined, (4) music electives and (5) elective courses other than music and music education to bring the total to 132 semester hours.

## ADMISSION

Applicants seeking admission as music majors must complete and submit to the Admissions Office of Memphis State University a formal application form. In addition to academic considerations, admission to the music degree program requires a personal interview (where applicable) and an audition of all candidates. The audition consists of (1) performance in the student's major applied area and (2) a music theory examination (written and aural). Candidates are accepted on the basis of accomplishment, future promise, and suitability for the program in which they wish to enroll.
fandidates audition at designated locaions on Saturdays, November through April, or by appointment. Students seekng admittance as music majors in the fall Bemester are required to audition no later han June 15. Students seeking admitance as music majors in the spring semester are required to audition no later han December 1. Additional information egarding admittance as a music major may be obtained through the office of the Department of Music.
Detailed degree requirements are as ollow: figures in parentheses indicate semester hours credit.

## . GENERAL EDUCATION COURSES (34-36

 semester hours)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).
HIST 2601, 2602 (6).
Atwo-semester sequence course $(6$ semester hours or more) in biology, chemistry, GEOG 1101, 1102,; geology, or physics (6-8).
Mathematics: three semester hours from the following: 1181, 1182, 1203, 1211, 1212, 1312, 1321, 2291, 2321, or 2611.
Physical Education: for details see page 48 .
BASIC MUSIC COURSES ( 36 semester hours) Music Theory and Cómposition 1004, 1005, 1006. 3001, 3002, 3003 (22)
Music History and Literature 3301, 3302, History of Music (6)
Major ensembles; for details see page 128 .
Piano proficiency; for detalls see page 125 .
Applied Music Workshop; for details see page 127

## MAJOR: Music

## Concentration Areas (choose one)

Brass Instruments (44 semester hours)
Individual instruction in major instrument (32)
Individual instruction in two secondary brass instruments (4)
MUSE 1104, Class Instruction in Woodwind Instruments (2)
MUSE 3700, Basic Conductıng (2)
Junior and Senior Recitals (nc)
Small Ensembles, 4 semester hours required to be chosen from those listed on page 128. (4)

## Church Music

Chorale Emphasis (43 semester hours)
Individual instruction in vorce (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 Conductıng (3)
MUSE 3700, Basic Conducting (2)
Senior Recital (MUSA 4998) or MUAP 4339) (nc)
MUSA 4001, Judeo-Christıan Music (3)
MUSA 4002, History of Liturgies (3)
MUSA 4003, Hymnology (3)
MUSA 4201, Church Choir Organization and Training (3)
Small Ensembles, 4 semesters required; to be chosen from those listed on p. 128 (4)
Organ Emphasis (52 semester 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 (3)
MUSA 4102, Church Choir and Console Conducting (3)
MUSA 4201. Church Chorr Organization and Training (3)
Senior Recital (MUSA 4998 or MUAP 4339) (nc)
Small Ensembles, 4 semesters required, to be chosen from those listed on p. 128. (4)
c. Composition (49 semester hours)

Individual instruction is 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, Advanced Orchestration (3)
MUSE 3700, Basic Conducting (2)
MUSE 3702, Score Reading (3) or
MUHL 4406, Music of the Twentieth Century (3)
Senior Composition Recital (nc)
MUAP 3403, Contemporary Chamber Players (2)
d. Music History (52 semester 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)
One course in mathematics or philosophy (3)
Collegium Musicum (4)
e. Music Theory ( 50 semester hours)

Individual instruction in applied music (12). At least 8 of these hours must be in piano.
MUTC 4502, Composition for Non-composition majors (3)
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 4102, Analytıcal Techniques (3)
MUSE 4701, Choral Conducung (3)
MUTC 4203, Pedagogy of Theory (3)
Upper Divisıon Music Hıstory (6)
f. Organ (56 semester hours)

Individual instruction in organ (40)
Junior and Senior Recitals ( nc )
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 on p. 128. (4)
g. Percussion (44 semester hours)

Individual instruction in percussion (32)
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 3700, Basıc Conducting (2)
Junior and Senior Recital (nc)
Small Ensembles, 4 semesters required, to be chosen from those listed on p. 128. (4)
h. Piano and/or Harpsichord

Chamber Music Emphasis ( 52 semester hours).
Individual instruction in piano (32)
MUSE 4501 Basic Piano Pedagogy (3)
MUHL 4001 Piano Repertory (3)
MUAP 3301 Chamber Music for Pıanists (6)

MUHL 4002, 4003, OR 4004. Song Repertory 1, Song Repertory II, or Survey of Chamber Music or Piano (2)
MUAP 4348 Junior Accompanying Recital (nc)
MUAP 4349 Senior Accompanying Recital (nc)
Pedagogy Emphasis (53 semester hours)
Individual instruction in prano (32)
MUSE 4501, Basic Piano Pedagogy (3)
MUSE 4503 Advanced Piano Pedagogy (3)
MUHL 4001 Piano Repertory (3)
MUAP 3301 Chamber Music for Pianists (6)
EDPS 2111 Human Growth and Development (3) Junior Recital ( nc )
MUSE 4505 Principles of Accompanying (3)
Performance Emphasis (51 semester hours)
Individual instruction in piano and/ or harpsichord (36)

Junior and Senior Recitals (nc)
MUSE 4503 Advanced Piano Repertory (3)
MUHL 4001 Piano Repertory (3)
MUAP 3301 Chamber Music for Pianists (6)
MUSE 4504 Principles of Accompanying (3)
i. Strings ( 45 semester hours)

Individual lessons in major instrument (32)
Individual instruction in two secondary string instruments (4)
MUTC 3103, Advanced Orchestration (3)
MUSE 3700, Basic Conducting (2)
Junior and Senior Recital (nc)
Small Ensembles, 4 semesters required, to be chosen from those listed on p. 128. (4)
j. Voice/Opera

Voice OR Opera Emphasis ( 52 semester hours)
Individual instruction in voice: voice (24) opera (16)
MUHL 4002, 4003 Song Repertory (4)
MUHL 4407 Opera and Music Drama (3)
MUSE 4701 Choral Conducting voice (3) opera (0)
Junior and Senior Recitals ( nc )
NOTE: The junior recital may be satusfied by public performance in a major opera role.
Theatre: voice ( 0 ), opera (6) from the following THEA 1551, 2501, 2515, 2531, 3511.
Foreign Language: 12 hours in addition to general education requirements (6) totaling 6 hours each in French, German, and Italian (12)
Small Ensembles: voice (6), opera (11)
MUAP 3602 Opera Workshop: voice (2), opera (4)
MUAP 3603 Opera Soloists: voice (0), opera (4)
MUAP 3604 Opera Production: voice (2), opera (3)
Voice (2) to be chosen from list on p 128
k. Woodwinds: (49 semester hours)

Individual instruction in major instrument (32)
Individual instruction in three instruments (2)
MUSE 1101. Class instruction in Brass Instruments (2)
MUTC 3103, Advanced Orchestration (3)
MUSE 3700, Basic Conducung (2)
Junior and Senior Recitals (nc)
Small Ensembles, 4 semesters required, to be chosen from those listed on p. 128. (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 minımum 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 (on a scale in which the grade of $A$ has a quality point
value of $4 ; B, 3 ; C, 2$; and $D, 1$ ). Of the 132 semester hours required for graduation, at least 42 semester hours must be in courses from the Upper Division (those numbered above 2999). Not more than 42 semester hours in any one subject will be counted toward a degree.
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; for details see page 53
HIST 2106, 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 semester hours in a single discipline. Courses from which these must be selected are ANTH 1100 or 1300 , and ANTH 1200 or 1400; CJUS 1100, ECON 1010, 2110, 2120; GEOG 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 1011, 1012, COMM 1781, 1782.
Mathematics/Philosophy: 9 semester hours as follow 3 of mathematics plus 3 of philosophy plus 3 of either. The following courses are acceptable MATH 1181, 1182, 1203 or 1211, 1212, 1312, 1321, 1401, 1402, 2291, 2321, 2322, 2401, 2402, 2581, PHIL 1111, 1611
Two of the following courses: PHIL 1101; MUHL 1101; THEA 1551
Physical Education: for details see page 48
Completion of requirements for one of the majors listed below
Electives to bring the total to 132 semester hours

## MAJORS (Choose one)

1. 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.
The Minor in Art. 24 semester hours in art courses, 9 of which must be from the upper division.
2. Journalism
(The following areas of concentration are available):

## ADVERTISING

33 semester hours in journalism courses, including JOUR 1011, 1012, 2111, 2211, 2300. $3210,3221,3222,4100,4101$, or 4222 , and 3 additional hours in Journalism.

## BROADCAST JOURNALISM

JOUR 1011, 2111, 2112, 3331, 3332, 3340, 4001, 4030; COMM 3823, 3824.

THE MAGAZINE
30 semester hours in journalism courses, including, JOUR 1011, 1012, $2111,2211,2300$, $3111,3116,3117,3121$, and three additional semester hours from the upper division.

NEWS-EDITORIAL
30 semester hours in journalısm courses, including JOUR 1011, 1012, $2111,2112,2300$, 3112, $3113,4001,4005$, and 3 additional semester hours from the upper division

PRESS PHOTOGRAPHY
33 semester hours in journalism courses, including JOUR 1011, 2111, 2112 or 3121, $3011,3111,3340,4001,4008,4009,4222$. and 3 additional hours in Journalism.

PUBLIC RELATIONS
30 semester hours in journalism courses, including JOUR 1011, 2111, 2112 or 3121, 3111 or $3340,3112,3221,4001,4222,4232$, and three additional semester hours to be chosen from 3113, 4002, 4003, or 4242

The Minor: Students may qualify for a minor in general journalism by completing 18 semester hours in journalism courses, including JOUR 1011, 2111, 2300, and nine additional semester hours selected from the upper division.

Note: All Journalism students must have typing proficiency before admission to courses numbered 2000 and above.

Practical experience is available to all journalism students on The Helmsman, a semi-weekly newspaper; The Statesman, a weekly departmental publication; The DeSoto, University yearbook; or in one of the following activities: University Public Information Office, Athletic Publicity Office, Alumni Publicity Office, Photo Service Department. Qualified majors will be chosen for senır-year internships with Memphis newspapers, magazines, advertisingpublic relations agencies, and broadcasting stations.

## 3. Applied Music

The Major: 32 semester hours in basic musid courses plus the completion of the requirements for a major; specific courses are outlined below
Basic music courses ( 32 semester hours)
MUTC 1004, 1005, 1006, 3001
MUHL 3301, 3302
Applied Music, 3 semester hours
Music ensemble, 4 semester hours
Applied Music Workshop (see p. 127 for details).
Applied Music (8 semester hours). 8 semester hours of individual instruction in upper-division courses.
4. Theatre and Communication Arts

## Concentration Areas

GENERAL SPEECH: 36 semester hours, including THEA 1411, 1551, COMM 1781, and at least six hours of upper-division courses approved by the department chairman from each of the three concentration areas, (1) radio-television-film, (2) rhetoric and communication arts, and (3) theatre; and three additiona upper-division hours from any concentration area.
RADIO-TELEVISION-FILM: 34 semester hours, including THEA 1551, COMM 1781, 1782 3823 3881, and 18 additional hours of upper division courses approved by the chairman.
RHETORIC AND COMMUNICATION ARTS: 33 semester hours, including THEA 1551. COMM 1781, 1782, 2321 or 2322,2781 , and 18 additional hours of upper division courses approved by the chairman.

THEATRE: 36 semester hours in theatre courses:
Core ( 24 semester hours): THEA 1411,1561 2501, 2511 OR 2512, 2531, 3541 (1), 3542 (2), 4551 OR 4552, COMM 1781

Electives in Theatre (12 semester hours) specific courses for emphasis (acting, stage movement and dance, directing, oral inter pretation, playwriting, history and criticism design, theatre technology, management) to be chosen in conference with student's advisor.
Minor in Theatre: 18 semester hours in theatre courses to be chosen in conference with appropriate theatre faculty advisor.
Minor in Communication Arts: Minor for Business Administration: 18 semester hours in communication arts courses, including COMM 1211, 1311, 2322, 3011, 3341, 4341

# The College of Education 

ROBERT L. SAUNDERS, B.S., M.S.<br>Ed.D., Dean

DEVOY A. RYAN, B.S., M.Ed., Ed.D., Associate Dean

BARBARA A. BURCH, B.A., M.S., Ed.D., Associate Dean

ELBERT A. NOTHERN, B.S.E., Ed.M., Ed.D., Assistant Dean<br>Room 215, The College of Education Building

## PURPOSES

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

The College of Education provides curricula leading to the degrees of Bachelor of Science in Education, Bachelor of Science in Home Economics, and Bachelor of Music Education. Candidates for these degrees take required and elective courses within The College of Education. They also take courses in the other colleges of the University in general education and in preparation for teaching in their subject matter fields. Students who wish to matriculate in the teacher education program must satisfy the special criteria of that program in addition to the general University admission require-
ments. Applications for admission to the teacher education program 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. For details see page 72.

## ACCREDITATION

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

## ORGANIZATION OF THE COLLEGE

The College of Education offers programs in the following areas: Adult Education; Distributive Education; Educational Administration and Supervision; Elememtary Education; Foundations of Education; Guidance and Personnel Services; Health, Physical Education, and Recreation; Home Economics; Library Service; Secondary Education; and Special Education and Rehabilitation. The College of Education offers a program in Business Education through The College of Business Administration; Industrial Arts Education through Industrial Technology; and Music Education through the Department of Music. The detailed requirements for these programs are listed in the section beginning on page 74 .

The University Campus School (a public school comprising grades 1 through 6) and the Children's School (a pre-school for children three to six years of age) are operated under the supervision of The College of Education

## Bureau of Educational Research and Services

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

Through the Bureau, the faculty of the college serves the community, state, region, and nation by participating in joint ventures with local school systems, institutions of higher education in Tennessee, the State of Tennessee, the U.S. Office of Education, the armed forces, and other organizations of local, regional, and national agencies.

Research projects involving faculty members relate to delivery systems, testing and test development, faculty improvement, surveys, and assessment efforts. Evaluation activities center on learning disabilities, pre-vocational education, science, social science, Title I projects, and school systems. Field services, including institutes and workshops, inservice 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.

Representatives of school systems and other interested individuals should contact the Director of the Bureau for further information.

# 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 midSouth 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 Children's School

The Children's School, for children three to six years of age, is administered by the Department of Curriculum and Instruction. The school is a non-profit institution. Tuition charges are determıned by the cost of operation

## Division of Professional Laboratory Experiences

This division is a college-wide 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 organizatıons 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 buildıng, 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 offeredUniversity 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 page 22.

## Admission to the Teacher Education Program

Students who enter MSU for the first time after September 1, 1962 and who wish to prepare themselves for careers as teachers must make formal application for admission to the Teacher Education Program. 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 the Assistant Dean for Student Personnel Services.)
(3) 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
(4) speech and hearing - acceptable scores on tests administered by Memphis State University Speech and Hearing Center.
*(5) health
*(6) social adjustment
*(7) communication skills
*(8) interest in teaching
*(9) the desire to work effectively with students
(10) Completion of 36 semester hours of the 45 semester hours in the general education program.
(11) Completion of at least 9 semester hours in the major teaching endorsement.
(12) Completion of EDFD 2011 and/or EDPS 2111 [or equivalent(s)].

[^2](13) Evidence of satisfactory perfor mance in an early related fiel experience.
(14) Specific recommendations from faculty members - professor un der whom applicant complete EDFD 2011 or EDPS 2111 and professor under whom applican has completed a course in the major endorsement, as well as the advisor.
(15) Transfer student who transfers 4 or more semester hours to have recommendation from former col lege or university advisor, instruc tor, department chairman, or other official.

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 Depart ment of Special Education and Rehabilitation.

Students must be admitted to the Teacher Education Program at least one semester prior to enrolling for student teaching. Students who enroll for student teaching for the fall semester must have been admitted by the end of the immediately preceding spring semester Students who enroll for the spring semester must 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 cducation 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 abtained from Room 211A, 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 arrange-
ment 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 SCHEDULED TO MEET AT A TIME WHICH WOULD CONFLICT WITH THE STUDENT TEACHING ASSIGNMENT.

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

Elementary Education:
Methods: ELED 4243
Student Teaching: ELED 4821
Kindergarten:
Student Teaching in Elementary and Kindergarten may be taken during the same semester.
Early Childhood Education (K-3)
Student Teaching ELED 4821 and ELED 4811
NOTE: Both must be taken during the first semester of the senior year.
Secondary Education:
SCED 4441 and appropriate elective in professional education, If not already completed Student Teaching SCED 4841
Distributive Education:
DTED 4630, 4641
Student Teachıng: DTED 4871
Special Education :
Student Teaching SPER 4541
NOTE Student Teaching in Special Education and in Elementary or Secondary Education may be done during the same semester.
Grades in student teaching are reported as "S" (satisfactory) or "U" (unsatisfactory).

THE COLLEGE OF EDUCATION

Requirements for enrolling for student teaching are as follow:

1. Filing of application with the director of student teaching during the semester prior to the one in which the student teaching is to be done. Applications for student teaching to be done in the fall semester must be filed by March 1; for the spring semester by October 1
2. Admitted to and in good standing with the Teacher Education Program. (See page 72.)
3. Classification as a senior or graduate student
4. Completion of at least one semester of residence at Memphis State University (minımum of twelve semester hours).
5 An over-all average of at least 2.25; an average in the endorsement area(s) of at least 225 ; an average of 225 in all professional education courses
6 Completion of EDFD 2011, EDPS 2111, 3121. and SPER 2000
7 Completion of ELED $3241,3251,3261,3271$, 4242, and EDUC 3301, 4344 for those preparing to teach in elementary schools, ELED 2211 and 4212 for kindergarten; or the appropriate secondary methods course(s) for those prepar ing to teach in secondary schools.
8 Completion of ether the elementary or secondary endorsement(s) is expected. Exceptions must be approved by the Director of Profes sional Laboratory Experiences after consultation with the major advisor and department charperson
5. Approved by the applicant's advisor and by the director of student teaching

## RESIDENCE REQUIREMENTS

Residence requirements in The College of Education are the same as those of the university as explained in detail on page 48.

## ACADEMIC PROGRAMS

## Degrees Offered

The College of Education offers the Bachelor of Science in Education, Bachelor of Science in Home Economics, and the Bachelor of Music Education degrees. The following outline lists the majors and areas of endorsement for each department.

| Department | Major (Concentration) | **ENDORSEMENTS |  | Degree Offered |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Major Endorsement | Minor Endorsement |  |
| Curriculum and Instruction | Elementary Education | Elementary Education | Kındergarten | Bachelor of Science in Education (B.S.Ed) |
|  | Early Childhood Education (K-3) |  |  |  |
|  | Secondary Education | Art Education Business Education <br> Distributive Education English | Business Education <br> Secretarial Practice <br> Bookkeepıng, <br> General Business <br> Typewriting <br> Economics, Consumer <br> Educatıon, General <br> Business, <br> Business Law <br> Driver Education <br> English |  |

[^3]| Department | Major (Concentration) | **ENDORSEMENTS |  | Degree Offered |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Major Endorsement | Minor Endorsement |  |
| Curriculum and Instruction (contınued) | Secondary Education (contınued) | Foreign Languages <br> French <br> German <br> Latın <br> Spanısh <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> Bıology <br> Chemistry <br> Earth \& Space Sciences <br> General Science <br> Physics <br> Socıal Studies <br> Economics <br> Geography <br> Government <br> History <br> Sociology <br> Special Education <br> Speech and Drama <br> Vocational Home <br> Economics | Foreign Languages <br> French <br> German <br> Latin <br> Russian <br> Spanish <br> Health Education <br> Elementary Pnysicat <br> Equcation <br> Secondary Physical Education <br> Industrial Arts Education <br> Library Service <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 <br> *Drama | Bachelor of Science in Education (B.S Ed.) |
| 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 Educatıon <br> Secondary Physical Educatıon | Elementary Physical Education <br> Secondary Physical Education |  |
|  | *Recreation and Park Administration |  |  |  |
| Home Economics | * Home Economics <br> (Child Development) (Dietetics) (Food Administration) (Merchandising-Fashion) (Merchandising-Home furnishings) |  |  | Bachelor of Science in Home Economics (B.S.H.E.) |
|  | Vocational Home <br> Economics (Occupational Child Care Services) (Occupational Clothing Services) (Occupational food Services) | Vocational Home Economics |  | Bachelor of Science in Education (B.S.Ed.) |
| Library Science |  |  | Library Service |  |
| Music <br> (College of Communication and Fine Arts) | Music Education (Instrumental Music) (School Music) | Music Education Instrumental Music School Music |  | Bachelor of Music Education (B.M.Ed.) |
| Special Education and Rehabilitation | Special Education | Special Education | Special Education | Bachelor of Science in Education (B.S.Ed.) |
|  | *Rehabilitation Education (No Concentration) OR (Rehabilitation of the Public Offender) (Vocational Evaluation) |  |  |  |

"Not approved as a valid certification area in Tennessee


## Degree Requirements

To qualify for a degree from The College of Education, the student must complete 132 semester hours with an overall grade point average of 2.0 (on a scale in which $A$ has the quality point value of $4: B, 3 ; C, 2$;
and $D, 1$ ). For those degree programs leading to teacher certification, an overall grade point average of 2.25 is required for all credit earned at Memphis State University, with all transferred credit from other institutions excluded.

Of the 132 semester hours required fo graduation, at least 45 must be in course from the upper division. The lowe division comprises the freshman an sophomore years, the first four semester of University work; courses offered in th
lower division are numbered 1000 through 2999. The upper division comprises the junior and senior years, the last four semesters of undergraduate work; courses offered in the upper division are numbered from 3000 through 4999. An overall average of 2.25 in all professional education courses, required or elective, is required. (In a course where the grade " $S$ " or " $U$ " is assigned the grade of " $U$ " will not be accepted.) Professional education courses are all undergraduate courses offered by the departments of Curriculum and Instruction, Distributive Education, Foundations of Education, Guidance and Personnel Services, and Special Education and Rehabilitation.

At least 60 semester hours of the credit applied on the degree must be of liberal content. Courses in the following fields will meet this requirement: anthropology, art (non-applied), biology, chemistry, economics, English, geography, geology, history, journalism (non-applied), languages, mathematics, music (nonapplied), philosophy, physics, political science, psychology, sociology, and speech. The following courses offered in The College of Education will meet this requirement: EDFD 2111, 4012, and 4021; HLTH 1102 and 1202; HMEC 1101, 1104,2101 , and 2202.

General requirements for the degree include the successful completion of (I) the general education program, (II) the professional education program, (III) physical education activity courses, (IV) a major in The College of Education, and $(\mathrm{V})$ endorsement in one or more teaching areas. Majors in Home Economics with concentrations in Child Development, Dietetics, Merchandising, and Food Administration in the Department of Home Economics; majors in Recreation and Park Administration in the Department of Health, Physical Education, and Recreation; and majors in Rehabilitation Education with concentrations in Rehabilitation Education, Rehabilitation of the Public Offender, and Vocational Education in the Department of Special Education and Rehabilitation complete only those professional education courses (II) specified in their programs and do not complete an endorsement ( $V$ ) since they are not qualifying for a teaching certificate. These requirements are outlined in detail in the sections which follow.

## I. THE GENERAL EDUCATION PROGRAM (45

 semester hours)(Courses taken to meet the requirements of this section may, if applicable, be used to meet the requirements of Section $V$ below)
English (12 semester hours): ENGL 1101, 1102, and any two of the following 2101, 2102, 2103, 2104, 2105.
Health and Personal Development: HLTH 1102, and one of the following: HMEC 1101, PSYC 1101.

Humanities: Elective from one of the following art (non-applied), 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 for secondary certification, COMM 1211, 1311, or 2911 for special educa. tion certification.
Natural Sciences: 9 semester hours (including one two- semester laboratory sequence) in two of the following 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 REOG 1101 and 1102 , or GEOG 1101 and 1201, or GEOG 1101 and GEOL 1101.

Social Sciences: HIST 2601, 2602 (6 semester hours), and an elective from one of the following: anthropology, economics, geography (other than the earth science courses listed above), political science, and sociology.
Mathematics: (3 semester hours) MATH 1181 for elementary, early childhood or special education certification; MATH 1181 or any higher-numbered mathematics course for secondary certification.
II. THE PROFESSIONAL EDUCATION PROGRAM ( $30-45$ semester 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 semester hours), and EDUC 3301 and 4344, for a total of 45 semester hours.
2. FOR THE EARLY CHILDHOOD (K-3) CER TIFICATE: ELED 3412, 4212, 4242, 4821 ( 6 semester hours) and 4811 ( 9 semester hours) for a total of 36 semester hours.
3. FOR ENDORSEMENT IN DISTRIBUTIVE EDUCATION:
MAJOR-DTED 3010, 4630, 4641, 4871 (9 semester hours) and one education elective applicable for secondary teachers, for a total of 33 semester hours.
MINOR-DTED 4630, 4641, 4871 ( 6 semester hours)
4 FOR THE SECONDARY CERTIFICATE; SCED 4441, 4841 ( 9 semester hours), appropriate secondary school methods course(s), and one elective applicable for secondary school teachers, for a total of 30 semester hours MUSE 4401 may be used to satisfy the secondary education elective for students completıng a major endorsement in Music Education.
4. FOR SPECIAL EDUCATION CERTIFICATE: SPER 3012, 4012, 4541 ( 9 semester 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 Education (SPER 4541) and six (6) semester hours in elther Elementary (ELED 4821) or Secondary Education (SCED 4841). The Special Education student completing requirements for a Secondary Certificate may use the method course SPER 3012 to satisfy the Secondary elective.
NOTE: Students will be required to take appropriate specialized methods course in each endorsement area, major or minor. In several endorsement areas, additional professional courses are required. The following list identifies
the methods course and additional professional education courses required for each subject area: Art: SCED 3321 (same as ART 4421)
Business: For Major Endorsement, SCED 3381 and 3382
For Minor Endorsement, SCED 3381 OR 3382; special section of EDUC 3901 (1 semester hour) For Specific Endorsements, SCED 3381 OR 3382, 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 satisfy the secondary education elective.)
Foreign Language: SCED 3342 (French), 3343 (German), 3344 (Latın), 3345 (Spanish), 3347 (Russian)
Health Instruction: HLTH 3102
Home Economics: (Vocational Home Economics): SCED 3383
Industrial Arts: SCED 3384
Library Service: 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
Physical Education: PHED 3803
Psychology: SCED 3372
Science: SCED 3361 (Biology), 3362 (Chemistry, Physics, General Science, and Earth and Space Science)
Social Studies: SCED 3371
Speech: SCED 3346
III. PHYSICAL EDUCATION ACTIVITY COURSES

Four semester hours of physical education activity courses; for exceptions and detals see pages 48 and 138.
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
Recreation and Park Administration
Rehabilitation Education
Secondary Education
Special Education
Vocational Home Economics
V. SPECIFIC SUBJECT ENDORSEMENT

Students must complete requirements in at least one major endorsement area The student may elect to complete requirements for more than one major endorsement or for a major endorsement and one or more minor endorsements. The minimum number of hours required for a major or minor endorsement varies according to the characteristics and needs of different subject areas. Students will be required to take an appropriate specialized methods course in each endorsement area, major or minor. In several endorsement areas additional professional courses may be required as needed to meet recommendations of varıous 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 endorsement. Semester hours completed as electives in excess
of the number of hours required in each endorsement shall be included EXCEPTION: For endorsement in Elementary Education only the required courses shall be included (Choose A, B, C, D, E, F, or $\mathrm{G}, \mathrm{H}$, 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 semester hours) ART 3411
BIOL 2001 and 2002 OR BIOL 1200 and 1600 and 3050
GEOG 2301, 2311
HLTH 3306
LIBS 4111
MATH 1182, 2581
MUSE 3001
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 combina tion from the areas of astronomy, chemistry, earth science, geology, or physics instead of PSCI 1031 and 1032.
Social Science - Two courses ( 6 semester hours) from the following social sciences: cultural anthropology, economics, history (other than HIST 2601, 2602), political science, or sociology COMM 2911 OR 1411
B. Kindergarten through Grade 3 Endorsement

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

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

1. Supportive Content ( 30 hours)

HLTH 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
2. Early Childhood Education ( 15 hours) HMEC 2101 and 4101; ELED 2211, 3212, and 4411.
3. *Area of Specialization (6-12 hours) A minimum of six hours constitutes a specialization area. Some areas require more than six hours. The areas of specialization presently identified are: Elementary Education, Library Service, Mathematics, Child Development, Geography, Biology, Special Educatıon, Physical Education, Health, Reading and Language, and Psychology
4. *Electives (5-11 hours)

[^4]Major Endorsement: (42 semester hours), SPER 2000, 3003, 3013, 3014, 3201, 3401, 3501, $3516,3901,4002,4013$, ART 3411 or TECH 4375, MATH 1182 , PHED 3303 or 3806.
Minor Endorsement: ( 33 semester hours), SPER
2000, 3003, 3013, 3014, 3201, 3401, 3501, 3516, 3901, 4002, 4013.
Minor Endorsement can be taken only when combined with a major endorsement area which is certifiable by the State of Tennessee.
E. Library Service

Major Endorsement - Not available
Minor Endorsement ( 21 semester hours).
LIBS $4111,4121,4131,4401,4232,433 i$, EDUC 4301
For certification in Library Service, 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 Physical Education (Grades K-9)

Major Endorsement: ( 58 semester hours)
PHED 1103, 1581, 1621, 1713, 1813, 2003, 2903, 3303, 3403, 3703, 3816, 3826, 3836. 3846, 4204
Four two-hour activity electives, to include one team sport activity and one individual and dual activity.
BIOL 1631, 1632
Electives ( 6 semester hours) to include no more than 2 activity courses
Minor Endorsement: 34 semester hours, as follow:
PHED 1103, 1581, 1621, 1713, 1813, 2903, 3303, 3403, 3703, 3846, 4204
One of he following courses: PHED 3816, 3826, 3836
Four two-hour activity electives
BIOL 1631, 1632

## G. Vocational Certificates

1. DISTRIBUTIVE EDUCATION

Major Endorsement: (33-36 semester hours)
ECON 2110, 2120
DTED 4621
MKTG 3010, elective (3 semester hours)
6 semester hours from the following: marketing electives, HMEC 3700, 3705, 4604
12 semester hours of electives in Business Administration and/or journalism directly related to the distributive education curriculum (to be chosen in consultation with advisor)
2 years of acceptable work experience in one or more marketing occupatıons OR HMEC 4705 (or HMEC 4804) plus one year of acceptable work experience. ( 4000 clock hours part time experience equals 2 years.)
Minor Endorsement: (21-24 semester hours) Requires completion of a major endorsement (712)

ECON 2110
MKTG 3010, elective ( 3 semester hours)
6 semester 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 occupations OR HMEC 4705 (or HMEC 4804) plus one year of acceptable work experience ( 2000 clock hours equal one year)

## 2. VOCATIONAL HOME ECONOMICS

Major Endorsement ( 41 semester hours)
HMEC 1100, 1101, 1104, 1105, 2101, 2102, 2202, 3004, 3305, 3405, 4100, 4103, 4104, 4203, electives ( 6 semester hours).
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).
a. Occupational Child Care Services (additional 21 semester hours)
HMEC 3393, 4101, 4301, 4401
ELED 3212, $3412,4411$.
b. Occupational Food Services \{additional 21 semester hours)
HMEC 3302, 3393, 3602, 3702, 3802, 4402, 4502.
c. Occupational Clothing Services (additional 21 semester hours)
HMEC 2205, 3305, 3393, 3505, 4305, 4315.
Minor Endorsement-Not Available
H. Certificates for Grades K-12

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

## 1. ART EDUCATION

Major Endorsement (36-39 semester 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 semester hours)
HLTH 1102, 1202, 1302, 2102, 2202, 3202 4102, 4702
BIOL 1631, 1632, 3400

## CHEM 1000

## HMEC 2202

Electives ( 3 semester hours) to be chosen from the following academic areas in consultation with advisor. Biology, Educational Foundations, Elementary Educatıon, Guidance, Health Educatıon, Home Economics, Physical Educatıon, Psychology, Secondary Education, Sociology, and Special Education. Courses required in general education and professional education programs cannot be used to satisfy health education electives.
Minor Endorsement: (33 semester hours)
HLTH 1102, 1202, 1302, 2102, 3205, 4102 BIOL 1631, 1632, 3400

## HMEC 2202

Electives ( 3 semester hours) to be chosen from the areas listed for Major Endorsement electives.
NOTE: It is recommended that CHEM 1000 be taken to satisfy the second area of science required in General Education.

## 3. MUSIC EDUCATION

Major Endorsement. (46-50 semester 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 semester hours)

MUTC 1004, 1005, 1006, 3001 (14 semester hours)
MUSE 3700, (2 semester hours)
Music Elective ( 3 semester hours)
Music ensembles (4 hours of large ensembles)

## b. Areas of Emphasis

(1) School Music (vocal emphasis) 122 semester hours)
MUED 4202, 4203, 4701
Applied Music ( 14 semester hours)
MUED 1101 OR 1104
Piano-Class Instruction or Individual Lessons (4 semester hours)
Voice-Class Instruction or Individual Lessons (4 semester hours)
Additional individual lessons above the Preparatory Level in either Piano or Voice (4 semester hours)
(2) Instrumental Music ( 26 semester hours) MUSE 1103, 4203, 4204, 4700
Applied Music (17 semester hours) Music Education 1101, 1104, 1109, 1110 Piano-Class Instruction or individual Lessons (4 semester hours)
Voice-Class Instruction or Individual Lessons (2 semester hours)
Individual lessons on one band or orchestral instrument of major emphasis ( 6 semester hours)
Minor Endorsement-Not Available

## Secondary Certificate

1. BUSINESS EDUCATION

Students seeking endorsement in Business Education must complete a Business Education Core (a) of 18 semester hours, and complete either the requirements for a Major Endorsement (b) or a Minor Endorsement (c). 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 semester hours)
ACCT 2010, 2020, ( 6 semester hours)
ECON 2110, 2120 ( 6 semester hours)
MGMT 1010 ORFIR 3011 ( 3 semester hours) OFAD 3510 OR MATH 2291 (3 semester hours)
b. Major Endorsement (22 semester hours plus 18 hours core)
ACCT 3010 OR $3110 ; 2720$
OFAD 4270; 4320 OR 4330 OR 4400 OR 4410
Six semester hours in shorthand, including one course in advanced shorthand
Six semester hours in typewriting, including one course in advanced typewriting
NOTE: MATH 2291 must be added, if not taken as part of core.
c. Minor Endorsements (10-18 semester hours plus 18 hour core)

1. Secretarial Practice ( 18 semester hours) OFAD 4270; 4320 OR 4330 OR 4400 OR 4410
Six semester hours in shorthand, including one course in advanced shorthand
Six semester hours in typewriting, including one course in advanced typewriting
2.Bookkeeping-General Business-Typewriting ( 10 semester hours)
ACCT 2720, 3010 or 3110
Six semester hours in typewriting, including one course in advanced typewriting
NOTE: MATH 2291, MGMT 1010 and FIR 3011 must be added, if not taken as part of core.
3.Economics - Consumer Education General Business - Business Law
(15 semester 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 hours core must also be completed)
2. Bookkeeping ( 4 semester hours)

ACCT 2720; 3010 OR 3110
2.Business Arithmetic (3 or 6 semester hours)
MATH 1211 and 2291 (may be included in core)
3. Business English (O or 3 semester hours) OFAD 3510 (may be included in core)
4. Business Law ( 3 or 6 semester hours) FIR 3011 (may be included in core), 3130
5. Business Machines ( 3 semester hours) OFAD 4270
6. Consumer Education (3 semester hours) HMEC 4103
7. Economics ( 6 semester hours) ECON 3610, FIR 3410
8. General Business ( 6 semester 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 Clerical Practice ( 3 semester hours)
OFAD 4320 OR 4330 OR 4400 OR 4410
10. Salesmanship ( 6 semester hours) MKTG 3010, 3410
11. Secretarial Practice ( 15 semester hours) Endorsement in Office and Clerical Practice, Shorthand and Typewriting
12. Shorthand (6 semester hours)

Six semester hours in shorthand, including one course in advanced shorthand
13 Typewriting ( 6 semester hours)
Six semester hours in typewriting, including one course in advanced typewriting
2. DRIVER EDUCATION

Major Endorsement-Not available
Minor Endorsement-21 semester hours
HLTH 2102, 2202
SCED 3335, 3336, or 4337
Electives-9 semester hours selected from the following:
Advanced driver education
Multi-media instruction
Special education
3. ENGLISH

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

## * 4. FOREIGN LANGUAGES

Endorsement may be obtaıned in French, German, Latin, Russian and/or Spanish. Two or more high school units of one foreign language may be used in lieu of freshman level courses in that language. Credit in any of the lower division courses may be earned by proficiency.

## a. French

Major Endorsement ( 33 semester hours) Lower division French, or the equivalent (12 semester hours)
FREN 3301, 3302, 3411, 3412, 4301, 4305, 4501

Minor Endorsement (24 semester hours)
Lower division French, or the equivalent (12 semester hours)
Four upper division courses, selected from the following:
FREN 3301, 3302, 3411, 3412, 4301,
4305, 4501
b. German
*Major Endorsement (33 semester hours)
Lower division German, or the equivalent (12 semester hours)
GERM 3301, 3302, 3410, 3411, 3412 , 4501
Minor Endorsement ( 24 semester hours)
Lower division German, or the equivalent ( 12 semester hours)
Four upper division courses, selected from the following
GERM 3301, 3302, 3410, 3411, 3412 . 4501
*Students electing"a Major Endorsement in German must complete requirements for another Major Endorsement or Minor Endorsement in a complementary teaching area.
c. Latin
**Major Endorsement (33 semester hours)
Lower division Latin, or the equivalent (12 semester hours)
LATN 3111, 3211, 3411, 3511, 3811, 3912, 4711
Minor Endorsement ( 24 semester hours) Lower division Latın, or the equivalent (12 semester hours)
Four upper division courses, selected from the following
LATN 3111, 3211, 3411, 3511, 3811, 3912, 4711
**Students electing a Major Endorsement in Latin must complete requirements for another Major Endorsement or Minor Endorsement in a complementary teaching area.

## d. Russian

Major Endorsement-Not available
Minor Endorsement ( 24 semester hours) Lower division Russian, or the equivalent (12 semester hours)
Four upper division courses, selected from the following
RUSS 3301, 3302, 3411, 3412, 3441 , 3442, 3443
e. Spanish

Major Endorsement ( 33 semester hours) Lower division Spanish, or the equivalent (12 semester hours)
SPAN 3301, 3302, 3411 and 3412 OR 3511 and 3512, 4301, 4302, 4501
Minor Endorsement ( 24 semester hours) Lower division Spanish, or the equivalent (12 semester hours)
Four upper division courses, selected from the following:
SPAN 3301, 3302, $3411,3412,3511$. 3512, 4301, 4302, 4501
5. INDUSTRIAL ARTS EDUCATION

Major Endorsement (45 semester hours)
TECH 1511, 1611, 1711, 1811, 1821, 2555, $2911,3350,3601,3718,4355$ Six semester hours from the following ART 2213, 2221 or JOUR 3111 . Six semester hours electives in technology

* Minor Endorsement (39 semester hours)

TECH 1511, 1611, 1711, 1811, 1821, 2555. 2911, 3350, 3601, 3718, 4355. Six semester hours from the following: ART 2213, 2221 or JOUR 3111
Completion of the specified courses required for the major and the minor endorsements
leads toward certification in Industrial Arts. Additional certification in the following single subjects may be earned by completing 3 additional hours in each area desired
Drafting (TECH 2511 or 2512 is recommended) Electricity/Electronics (TECH 2821 or 3841 is recommended)
Metals (TECH 3781 is recommended)
Plastics (TECH 3410 is recommended)
Wood (TECH 2611, 2651, or 3611 or 3631 is recommended)
*Students seekıng endorsement in Industrial Arts should take the following courses, which may be used to fulfill General Education requirements:

MATH 1213, CHEM 1051, PHYS 1111 and 1112.
6. MATHEMATICS

Major Endorsement ( 32 semester hours)
MATH 1213
MATH 1321, 2321
One course in each of the following areas Geometry (MATH 2581 is recommended) Probability (MATH 4631 is recommended) Computer Programming (MATH 4710 is recommended)
Theory of Numbers (MATH 4221 is recommended)
History of Mathematics (MATH 4251 is recommended)
Six semester hours from the following courses:
MATH 2322, 2611, 3111, 3241,4261,4111, 4171, 4241, 4411, 4611
Minor Endorsement ( 20 semester hours)
MATH 1213
MATH 1321, 2321
Nine semester hours from the following courses:
MATH 2322, 2581, 2611, $3111,3241,3162$,
4111, 4151, 4171, 4221, 4241,4411,4611. 4631, 4710
If a student's performance on the Mathematics Department Placement Test makes it possible for him to receive credit for MATH 1213, then he is advised to pay the required fee $(\$ 1500)$ and get the credit for the course.
NOTE: Students in the Honors Program in Mathematics may use MATH 1401, 1402, 2401 , and 2402 to satisfy the following requirements: MATH 1213, 1321, 2321, 2611. and 3241
7. MATHEMATICS AND PHYSICAL SCIENCE

Major Endorsement (52 semester hours)
MATH 1212, 1321, and 7 hours of electives in mathematics
CHEM 1111, 1112
PHYS 2111 and 2112 OR 2511 and 2512 Physical Geography or Geology ( 8 semester hours)
Mathematics and/or Physical Science electives ( 14 semester hours)
Minor Endorsement-Not available
8. PHYSICAL EDUCATION (Secondary) Grades 7 12
Major Endorsement. (55-56 semester hours) HLTH 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 courses: PHED 2103, 2203, 2303, 2403, 2503, 2803
For Women: PHED 1821, 1921, 3103
BIOL 1631, 1632

Minor Endorsement: (43-44 semester hours) PHED 1103, 2903, 3303, 3403, 3703, 4204, 4503
Choose alternative $A$ or $B$
A. Two of the following courses: PHED 2103, 2203, 2303, 2403, 2503, 2803
B. One of the following courses: PHED 3103, 3203, 3503
Eight activity courses:
For Men: PHED 1431, 1502, 1572, 1621, 1713, 1813, 1923, 1941
For Women: PHED 1502, 1572, 1621, 1713,
1813, 1821, 1921, 1923
BIOL 1631, 1632
9. PSYCHOLOGY

Major Endorsement-Not available
Minor Endorsement-(21-22 semester hours)
A.PSYC 1101; PSYC 2302 or PSYC 3302; SOCI 3701; SOCI 3322; PSYC 4101
B. Six semster hours chosen from the following areas: Developmental Psychology (PSYC 3103); Abnormal Psychology (PSYC 3102); Personality Dynamics (PSYC 3101); Child Psychology; Adolescent Psychology (EDPS 4112 or SOCI 4760).
C. Three semester hours of electives: The electives may be selected from any undergraduate courses taught in the Department of Psychology; taught in the Department of Educational Foundations (EDPS): or SOCI 4760. The student may not count both PSYC 3302 and SOCI 3701, or both EDPS 4112 and SOCI 4760, in meeting endorsement requirements. Courses taken in Educational Psychology (EDPS) may not be counted toward fulfilling both professional education and endorsement requirements.

## 10. SCIENCE

a. Biology

Major Endorsement (35 semester hours) BIOL 1200, 1600, 2000, 3050, 3070, 3100, 3500
CHEM 1111, 1112 (Corequisite: MATH 1211, 2212 , or 1321)
Minor Endorsement ( 23 semester hours) BIOL 1200, 1600, 2000, 3070
CHEM 1111, 1112 (Corequisite: MATH 1211, 1212, or 1321)
b. Chemistry

Major Endorsement (32 semester hours) CHEM 1111, 1112, 3301, 3302, 3311, $3312,3400,3401,3404,3407$ PHYS 2111, 2112 (Prerequisite: MATH 1212)

Minor Endorsement ( 20 semester hours) CHEM 1111, 1112, 3301, 3302, 3311, 3312, 3400, 3404
c. Physics

Major Endorsement ( 33 semester hours) PHYS 1811, 1812, 2111, 2112 (Prerequisite: MATH 1212), 3010, 3211, 3510 CHEM 1111, 1112
Minor Endorsement ( 26 semester hours) PHYS 1811, 1812 (or an approved Physics elective), 2111, 2112 (Prequisite: MATH 1212), 3010 CHEM 1111, 1112
d.General Science

Major Endorsement ( 37 semester hours) BIOL 1200, 1600, 2000, 3070 CHEM 1111, 1112 (Corequisite: MATH 1211, 1212 or 1321) PHYS 1811, 2111 and 2112 (Prerequisite: MATH 1212)
Earth Science elective ( 3 semester hours)

Minor Endorsement (23 semester hours) BIOL 1200, 1600
CHEM 1111, 1112, (Corequisite: MATH 1211, 1212 or 1321)
PHYS 2111 (Prerequisite: MATH 1212)
e. Earth and Space Sciences

Major Endorsement ( 33 semester hours) GEOL 1101, 1201, 2312, 3100 PHYS 1811
GEOL 1101, 3502, 4111, 4122, 4131
Minor Endorsement ( 23 semester hours) GEOL 1101, 2312,3100 PHYS 1811
GEOL 1101, 4111, 4131

## 11. SOCIAL STUDIES

a. Economics, Geography, Government, and Sociology
Major Endorsement ( 30 semester hours) 24 semester hours of work in the designated major area, selected in consultation with advisor, of which at least 18 hours must be in upper division courses.
Up to 6 hours may be taken in cognate social science areas supportive to the major (excluding HIST 2601, 2602), and selected in consultation with advisor.
NOTE: These four areas maybe 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 semester hours) 12 semester hours of upper division courses in the designated major area, selected in consultation with advisor. Up to 6 hours may be taken in cognate social science areas supportive to the minor (excluding HIST 2601, 2602), and selected in consultation with advisor.

## b. History

Major Endorsement (36 semester hours) HIST 2601, 2602
European and / or World History courses (6 semester hours)
Upper division History courses, selected in consultation with advisor (12 semester hours)
Electives, selected in consultation with advisor (12 semester hours), may be additional history courses, or in the following areas:
Up to 6 hours may be taken in historical courses which do not have to be offered by the History Department (excluding History of Education).
Up to 6 hours may be taken in cognate social science areas supportive to the major (economics, sociology, political science, geography, anthropology).
Minor Endorsement ( 24 semester hours) HIST 2601, 2602
European and/or World History courses (6 semester hours)
Upper division history courses, selected in consultation with advisor $(6$ semester hours)
Electives, selected in consultation with advisor ( 6 semester 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 semester hours)
COMM 1211; 1311 and 2781 OR COMM 1781 and 2321; 3371 OR 3372 OR 3881; OR 4361 OR 4362 OR 4366; 4101 OR 4341 OR 4371; 4922; THEA 1411; 2511; 3521; 1555 or 4551 OR 4552; 4921
Minor Endorsement in Speech (21-22 semester hours)

COMM 1211 or $3823 ; 1411 ; 1311$ or 1781; 2321 or 4922; THEA 1411; 1551; 3411 or 3461, 4921 or 3521.
*Minor Endorsement in Drama (21 semester hours)

COMM 1211, THEA 1411, 4551 OR 4552,
2511, 3521, 4921
*This area is not presently an approved certification area by the State of Tennessee.

## Requirements for Majors and Minors

ADULT EDUCATION. No courses are offered in adult education at the undergraduate level. Students who plan graduate study in this area should consult the Bulletin of the Graduate School.
DEPARTMENT OF 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 semester hours as follow: EDFD 2011; EDPS 2111, 3121; and ELED 3241, 3251, 3261, 3271, 4242, 4243, 4821 ( 9 semester 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 semester hours, as follow:
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 semester hours as follow: EDFD 2011; EDPS 2111, 3121; and ELED 3412, 4212, 4242, 4821 ( 6 semester hours). 4811 ( 9 semester hours), and SPER 2000.
The following must also be completed

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

HLTH 2102, humanities 3 hours (elective from applıed 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.
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 constitutes a specialization area. Some areas require more than six hours. The areas of specialization presently identified are: Elementary Education, Library Service, Mathematics, Child Development, Geography, Biology, Special Education, Physical Education, Health, Reading and Language, and Psychology
5. Electives (5-11 hours)
*At least nine (9) hours of upper division courses must be included in the area of specialization and/or from the electives.

DEPARTMENT OF DISTRIBUTIVE EDUCATION. The Department of Distributive Education offers a major and a minor in distributive education.
distributive education:
The Major: (33-36 semester hours)
ECON 2110, 2120
DTED 4621
MKTG 3010, elective (3 semester hours)
6 semester hours from the following: marketing electives, $\mathrm{HMEC} 3700,3705$, 4604.

12 semester hours of electives in Business Administration and/or journalism directly related to the distributive education curriculum (to be chosen in consultation with advisor)
2 years of acceptable work experience in one or more marketing occupations OR HMEC 4705 (or HMEC 4804) plus one year of acceptable work experience. ( 4000 clock hours part tıme experience equals 2 years.)
The Minor: (21-24 semester hours) Requires completion of a major endorsement (7-12) ECON 2110
MKTG 3810, elective ( 3 semester hours) 6 semester 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 occupations OR HMEC 4705 (or HMEC 4804) plus one year of acceptable work experience ( 2000 clock hours equal one year)

DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND SUPERVISION. The Department of Educational Administration and Supervision does not offer courses at the undergraduate level leading to a degree program. Students who plan graduate study in this area should consult the Bulletin of The Graduate School.
DEPARTMENT OF FOUNDATIONS OF EDUCATION. The Department of Foundations of Education does not offer a major or minor at the undergraduate level. Students who plan graduate study in this area should consult the department chairman.
DEPARTMENT OF GUIDANCE AND PERSONNEL SERVICES. The Department of Guidance and Personnel Services offers majors at the graduate level only.

DEPARTMENT OF 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.

THE MAJOR IN PHYSICAL EDUCATION (Choose concentration in Elementary or Secondary Physical Education)
Concentration in Elementary Physical Education: (58 semester hours)

PHED 1103, 1581, 1621, 1713, 1813, 2003,
2903, 3303, 3403, 3703, 3816, 3826, 3836, 3846, 4204
Four activity electives, to include one team sports activity and one individual and dual sports activity.
BIOL 1631, 1632
Electives ( 6 semester hours) to include no more than 2 activity courses
Concentration in Secondary Physical Education: (55-56 semester hours)
HLTH 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 courses: PHED 2103, 2203, 2303, 2403. 2503. 2803

For Women: PHED 1821, 1921, 3103
BIOL 1631, 1632
THE MINOR IN PHYSICAL EDUCATION (Choose concentration in Elementary or Secondary Physical Education)
Concentration in Elementary Physical Education: (43 semester hours)

PHED 1103, 1581, 1621, 1713, 1813, 2903. 3303, 3403, 3703, 3846, 4204
One of the following courses: PHED 3816, 3826, 3836
Four two-hour activity electives
BIOL 1631, 1632
Concentration in Secondary Physical Education: (43-44 semester hours)

PHED $1103,2903,3303,3403,3703,4204$, 4503
Choose alternative $A$ or $B$
A. Two of the following courses: PHED 2103, 2203, 2303, 2403, 2503, 2803
B. One of the following courses. 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 semester hours, as follow
HLTH 1102, 1202, 1302, 2102, 2202, 3202,
4102,4702
BIOL 1631, 1632, 3400 or 1400
CHEM 1000
HMEC 2202
Electives (3 semester hours) to be chosen from the following academic areas in consultation with advisor. Biology. Educational Foundations, Elementary Education, Guidance, Health Education, Home Economics, Physical Educatıon, Psychology, Secondary Education, Sociology,
and Special Education. Courses required in general education and professional education programs cannot be used to satisfy health education electives.
The Minor: 33 semester hours, as follow:
HLTH 1102, 1202, 1302, 2102, 3202, 4102
BIOL 1631, 1632, 3400 or 1400
HMEC 2202
Electives (3 semester hours) to be chosen from the areas listed for Major Endorsement electives
NOTE: It is recommended that CHEM 1000 be taken to satısfy the second area of science required in General Education

## THE MAJOR IN RECREATION AND

 PARK ADMINISTRATIONGeneral Education Program ( 61 semester hours)
ENGL 1101, 1102, and any two of the following 2101, 2102, $2103,2104,2105$, 2106
Natural Science: 9 semester hours (including one two-semester laboratory sequence) in two of the following sciences: biology, chemistry, physics, earth sciences (defined for purposes of this requirement to include GEOG 1101, 1102, $4111,4121,4122$, 4131, and any course in geology.)
HIST 2601, 2602
PSYC 1101, 1102
SOCI 1111, elective (3 semester hours)
ANTH 1200
MATH 1181, or any higher number Humanities one course from two of the following areas: Art, Music, Drama
COMM 1211 or 1311
Journalism elective (3 semester hours)
Physical Education Activities (4 semester hours)
Related Areas of Study (12 semester hours)
HLTH 1102, 2102
EDPS 2111, 3121
Professional Areas of Study (38 semester hours)
RECR $2105,3105,3205,3305,3405,3605$, 3705, 4105, 4405, 4505, 4605 19 semester hours)
Electives ( 21 semester 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-Palmer 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 Merrill-Palmer with the semester hours earned being transferred toward graduation at Memphis State.

A cooperative relationship also exists with the Fashion Institute of.Technology in New York City, whereby Home Economics-Merchandising majors may enroll for one semester of study in New York with the semester hours earned being transferred toward graduation at Memphis State University.

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.

## HOME ECONOMICS

Core Requirements: (17 semester hours):
HMEC 1100, 1101, 2101, 2202, 3405, 4100, 4103
Concentrations:
a. Child Development ( 63 semester hours): HMEC 4101, 4201, 4301, 4401, 4402 ART 3411
PSYC 1101, 1102, 3103, 3302
EDFD 2011; EDPS 2111, 3121
ELED 2211, 4212, 4811
Electives in Home Economics (12 semester hours)
For those students wishing to complete the requirements for $\mathrm{K}-3$ 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 Education major program.
b. Dietetics ( 64 semester hours):

HMEC $2102,3302,3602,4102,4203,4402$,
4502 and 6 hours of electives in Home Economics
CHEM 1111, 1112, 3311, 3312, 4511
BIOL 1632 and 3500
ACCT 2010 and 2020
MGMT 4210
EDPS 3121
c. Food Administration ( 54 semester hours): HMEC 2102, 3302, 3602, 3702, 3802, 3902, 4402, 4502
ACCT 2010, 2020
ECON 2110, 2120
MGMT $3110,3710,4210,4420$
MKTG 3010, 3410,4220
d. Merchandising-Fashion $(51$ semester hours):
HMEC 1104, 1105, 2205, 3004, 3305, 3700, 3705, 4705
ECON 2110, 2120
Six of the following courses ( 18 semester hours): MGMT 3110, ACCT 2010, 2020 MKTG 3010, 3140, 3320, 3410
e. Merchandising-Home Furnishing (57 semester hours):
HMEC $1102,3004,3104,3700,3704,4203$, 4204, 4604, 4804
ECON 2110,2120
Six of the following courses ( 18 semester hours): MGMT 3110; ACCT 2010, 2020; MKTG 3010, 3140, 3320, 3410

## VOCATIONAL HOME ECONOMICS

Major Endorsement (41 semester hours) HMEC 1100, 1101, 1104, 1105, 2101, 2102, $2202,3004,3305,3405,4100,4103,4203$, electives ( 6 semester hours)
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). Prerequisite: All occupational major subject matter courses must be completed prior to internship.
a. Occupational Child Care Services (ad ditional 21 semester hours). HMEC 339 4101, 4301, 4401; ELED 3212, 341 4411.
b. Occupational Food Services (addition 21 semester hours). HMEC 3302, 339 . 3602, 3702, 3802, 4402, 4502.
c. Occupational Clothing Services (ad ditional 21 semester hours). HMEC 220 3305, 3393, 3505, 4305, 4315.
NOTE: These requirements are in addition University requirements and required courses The College of Education.)

DEPARTMENT OF LIBRARY SCIENCE The Department of Library Science offer no major in Library Service. For certifica tion in Library Service, a student mus complete requirements for endorsemen in Elementary Education or a majo endorsement in Secondary Education, it addition to completing LIBS 4111, 4121 4131, 4232, 4331, 4401; EDUC 4301

For non-certification, a student whos major is in another college of the Univer sity will meet requirements for a minor i library service by completing the course listed above.

## DIVISION OF MUSIC EDUCATION

Studies of the Division of Music Educa tion qualify students for teaching schor music or instrumental music in the publi schools. Two degree plans are offereo the Bachelor of Music Education with concentration area in (1) School Music (2) Instrumental Music or the Bachelor o Science in Education with endorsemen in (1) School Music, (2) Instrumenta Music.

## BACHELOR OF MUSIC EDUCATION:

## THE MAJOR IN MUSIC EDUCATION

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

1. Basic Music ( 46 semester hours)

MUTC 1004, 1005, 1006, 3001, 3002, 300 (22 semester hours)
MUHL 3301, 3302 (6)
MUSE 1101, 1104, 1109, 1110, 3700, 420 (11)

Music ensembles: one large ensemble fo every semester of residence except for th semester of student teaching (7 semeste hours). For details see p. 128
Music 0001: each semester of residence except for the semester of student teaching or for each semester of individual lessons ir applied music (no credit). For details see page 127.
2. The Concentration Areas:
a. School Music-vocal emphasis semester hours)
MUSE 4202, 4701 (5)
Class or Individual instruction in voice o piano (4)
Individual lessons in major areas including at least four semester hours of uppe division credit (14)
Recital: MUAP 4318 for piano major o MUAP 4618 for voice major ( nc )
b. Instrumental Music ( 26 semester hours) MUSE 1103, 4204, 4700 (6)
Class or individual instruction in piano (4) Class or individual instruction in voice (2) Individual lessons in major area, including at least four semester hours of upper division credit (14)
Junior recital: brass, percussion, strings, or woodwind

## EPARTMENT OF SPECIAL EDUCATION

 AND REHABILITATIONIOTE: Effective September 1, 1980, cerification in Educable Mentally Retarded vill be discontinued. The following rograms lead toward certification in pecial Education (grades K-12). The Department of Special Education and Rehabilitation offers a major and a minor in special education and a major in ehabilitation education.

Honors Program; See page 141
SPECIAL EDUCATION
Major Endorsement (42 semester hours) SPER 2000,3003, 3013, 3014, 3201, 3401, 3501, 3516, 3901, 4002, 4013, ART 3411 or TECH 4375, MATH 1182, PHED 3303 or 3806
Minor Ëndorsement ( 33 semester hours)
SPER 2000, 3003, 3013, 3014, 3201, 3401, 3501, 3516, 3901, 4002, 4013
Minor Endorsement can be taken only when combined with a major endorsement area which is certifiable by the State of Tennessee

THE MAJOR IN REHABILITATION EDUCATION

1. Rehabilitation Core: ( 48 semester hours): SPER 3901, $3911,3912,4902,4903,4941$ (6 semester hours)
SWRK 3902, 3903, 3904
PSYC 3101
DTED 3010
SOCI Twelve semester hours from the following 4631 or $3841,3831,4420$ or 3422 , 3501, 3521 or 4522, 4851, 4852.

## 2. Concentration Areas:

a. Rehablitation Education (36 semester hours):
SPER 2000, 3002, 3003, 3201, 3401 3501, 4904 or 3012, 4905 or 3014
GUID 4621
EDPS 2111, 3121, 4112
b. Rehabilitation of the Public Offender (36 semester hours)
SPER 3201, 3401, 3501, 4904 or 3012. 4905 or 3014
PSYC 3102
18 semester hours of work in the fields of Crimınal Justıce, Guidance, Psychology or Sociology selected in consultation with advisor
c. Vocational Evaluation (33 semester hours).
SPER 3002, 3501, 4904 or 3012, 4905 or 3014, 4913, 4914,4915, 4916
PSYC 3102, 3301
SOCI 4842

# The Herff College of Engineering 

ORVILLE EUGENE WHEELER, B.E., M.S.C.E. Dean

Room 201-D Engineering Building

## PURPOSES

The college's function is to serve the educational and research needs of the industrial community, the metropolitan area, the state, and the nation. It accomplishes this function by providing: (1) undergraduate professional education in the principal fields of engineering, (2) undergraduate instruction for majors and minors in geology, (3) undergraduate education in both technical and educational technology, (4) graduate education in all areas, (5) a program of continuing education for the engineering and technological practitioners of the area, (6) assistance in the solution of industrial problems through utilization of physical facilities and the professional talents of faculty and students (7) a forum for the interchange of ideas and experiences among members of the industrial community through conferences, institutes and short courses and (8) an increase in the accumulation of knowledge in special fields of interest by a continuing program of study and research.

## ORGANIZATION

The Herff College of Engineering is organized into Departments of Civil Engineering, Electrical Engineering, Geology, Mechanical Engineering, and the Division of 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 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 3story engineering library, administrative offices, auditorium, study lounges, and a hands-on 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 Division of Engineering Technology.

## ADMISSION OF FRESHMEN AND TRANSFER STUDENTS

Requirements for admission to The Herff College of Engineering for freshmen and transfer students are those for the University as a whole (described on page 22).

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

## ACADEMIC PROGRAMS

## Pre-Med Engineering

The Herff College of Engineering at Memphis State University has an option for students enrolled in an engineering program. This option is called "Pre-MedEngineering". It adds another degree of flexibility to the students' options as they approach the completion of their baccalaureate degree. The program was generated in response to the students' request to qualify for entrance into the medical school in conjunction with a back-up, and highly marketable, degree in an engineering field. This idea is in concert with the changing attitudes of medical schools, who are now encouraging a variety of carefully planned baccalaureate programs. They feel that such liberalization would improve the overall spectrum and qualifications of the medical profession in its attempt to handle the ever-increasing complexity
related to society's health care problems
The student interested in this pre-medengineering option should take the regular first two years of the common engineering core-including both semesters of general chemistry. As the student progresses through these firs two years, he should then contact the chairman of the engineering department of his choice who is authorized to substitute the courses in organio chemistry for certain technical courses normally taken in the junior and senior years. Organic Chemistry 3311 and Lab 3301 plus Organic Chemistry 3312 and Lab 3302 are the eight semester hours of organic chemistry, while BIOL 1200 (Botany) and BIOL 1600 (Zoology) are the courses recommended by the U.T. Medical Units admissions office and Memphis State's biology department These courses should be taken by the student as a junior so as to assist him in taking the medical entrance examinations, probably during the senior year. Depending upon the student's schedule, time required for the undergraduate engineering degree, etc., the pre-med-engineering student may take additional biology courses, such as Physiology 3730 or Comparative Anatomy 3620. Also courses in biochemistry are appropriate, but not required.

## Degrees Offered

The Herff College of Engineering comprises four departments: Civil Engineering, Electrical Engineering, Geology Mechanical Engineering, and the Division of Engineering Technology.

All have four-year programs leading to the following degrees: Bachelor o Science in Civil Engineering, Bachelor o Science in Electrical Engineering Bachelor of Science in Mechanical Engi neering, 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 recommend ed for those students who demonstrate high scholastic abilities. For more infor mation about graduate programs, refer to the Graduate School Bulletin.

The following outline lists the major and areas of concentration for each department in the Herff College of Engi neering.

## the herff college of engineering

| Department | Major | Concentration Within Major | Degree Offered |
| :---: | :---: | :---: | :---: |
| Civil Engineering | Civil Engineering* | (1) Environmental Engineering <br> (2) Foundation Engineering <br> (3) Structural Engineering <br> (4) Transportation Engıneering | Bachelor of Science in Civil Engıneering (B.S.C.E.) |
| Electrical Engineering | Electrical Engineering* | (1) Solid State Electronics <br> (2) Energy Conversion <br> (3) Control Systems <br> (4) Computer Science <br> (5) Microwave Antenna Systems | Bachelor of Science in Electrical Engineering (B.S.E.E.) |
| Geology | Geology |  | Bachelor of Science in Geology (B.S.G.) |
| Mechanical Engıneering | Mechanical Engineering* | (1) Design and Manufacturing <br> (2) Energy Systems <br> (3) Fluid Power Systems <br> (4) Mechanical Systems <br> (5) Aerospace Propulsion | Bachelor of Science in Mechanical Engıneering (E.S.M E.) |
| Engineering Technology | Architectural Technology* |  | Bachelor of Science in Engineerıng Tečhnology (B S.E.T.) |
|  | Computer Systems Technology* |  | Bachelor of Science in Engineering Technology (B.S E.T.) |
|  | Construction Technology* |  | Bachelor of Science in Engineerıng Technology (B.S.E.T.) |
|  | Electronics Technology* |  | Bachelor of Science in Engineerıng Technology (B.S.E.T.) |
|  | Manufacturing Technology* | (1) Draftıng 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.) |
|  | Industrial Arts |  | Bachelor of Science in Technology (B S.T.) |

*Note: Accredited by the Engineer's Council for Professional Development.

## Degree Requirements

The required curriculum, including elective specialties in each of the various 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 (on a scale in which the grade of $A$ has a quality point value of $4 ; B, 3 ; C, 2$; and $D, 1$ ).

## ENGINEERING CORE

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

## FRESHMAN YEAR

NGL 1101 English Comp.
AATH 1321
Anal. Geom. \& Cal. 4 NGR 1001 Intro. to Engr NGR 1011
Engr. Compt. Prog. NGR 1021
Engr. Graphics :HEM 1111
Gen. Chemistry HED 1 ---
Phys. Activityt or
KOTC 1111 Aerospace

2
4

ENGL 1102
English Comp. 3
MATH 2321
Anal. Geom. \& Cal. 4 PHYS 2511
1 Phys-Sci. \& Engr. 4 Natural Science
(See Note 1)

PHED 1---
Phys. Activity $\dagger$
or
ROTC 1112
Aerospace

## SOPHOMORE YEAR


*See page 48 for options.
$\dagger$ A minimum total of 4 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.)
NOTE 2: A 6 or 9 hour sequence termınatıng 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

## 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. Graduates are prepared to assume technical or
administrative positions in the areas of planning, design, construction, and maintenance of all types of public and private civil engineering projects.

Areas of specialization include sanitary engineering, structural analysis and design, soil mechanics and foundation engineering, transportation engineering, and water resource engineering.

> The Major 43 semester hours in Civil Engıneerıng courses including Civil Engineering 2131, 3101, $3111,3121,3122,3131,3141,4135$, 4141, 4151, 4161 and 9 hours of Civil Engineering elective courses. A student may select courses from the following concentrations to satisfy the required 9 semester hours of Civil Engineering electives and the 3 semester hours of technical electives required for a Bachelor of Science Degree.
> a. Environmental Engineering: CIVL 4142, 4145, 4147, 4152, 4191
> b. Foundation Engineering: CIVL 3135,4152 , 4191
> c. Structural Engineering: CIVL 3135, 4131, 4136, 4152, 4101
> d.Transportation Engineering: CIVL 3135. $3136,4152,4162,4164,4191$

To qualify for the degree of Bachelor of Science in Civil Engineering a student must complete the curriculum outlined below. (For the freshman and sophomore years, see the common engineering requirements previously listed)

## JUNIOR YEAR

| CIVL 3101 |  | CIVL 3111 |  |
| :---: | :---: | :---: | :---: |
| Comp. Meth | 3 | Field Measurem. | 3 |
| CIVL 3121 |  | Struct. Analysis II | 3 |
| Struct Analysis I | 3 | CIVL 3131 |  |
| MECH 3322 |  | Des. of Steel Struc. | 3 |
| Mech of MatI. | 4 | MECH 3361 |  |
| MECH 3311 |  | Matl. Science |  |
| Engr. Thermo. | 3 | H \& S Elective |  |
| MECH 3331 |  | (See Note 2) | 3 |
| Mech. of Fluids | 4 |  |  |
|  | 17 |  | 16 |
| SENIOR |  | YEAR |  |
| CIVL 4141 |  | CIVL 3141 |  |
| Hyd. \& Wat Sup. | 3 | Engr. Economics | 3 |
| CIVL 4151 |  | CIVL 4135 |  |
| Soil Mechanics | 4 | Reinforced Concrete |  |
| CIVL 4161 |  | Design | 3 |
| Trans. Sys. Engr. | 3 | Civil Engr Elec. |  |
| Civil Engr. Elec. | 3 | (See Note 4) | 6 |
| H \& S Elective |  | (See Note 3) | 3 |
| (See Note 2) | 3 |  |  |

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

## ELECTRICAL ENGINEERING

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

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

Graduates of this program may qualify for positions in development and design, research, sales, management, manufacturing, and construction. Some of the technical areas of opportunity lie in the design, development and use of analog and digital computers, communications systems, power generation and distribution systems, microwave and antenna systems, automatic control systems, and general instrumentation. An undergraduate student, with the approval of the department chairman, may also elect to take special technical and H \& S elec-
tives which satisfy the course entrance requirements for medical school.

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

The Major: 43 semester hours of Electrical Engineering courses including Electrical Engineering 2201, 2203, 3201, 3202, 3211 , 3212, 3213, 3221, 4201, 4203, 4211, 4212 and 4231. The remaining 10 semester hours of Electrical Engineering courses may be elected from one of the following areas of concentration. The program also includes 7 semester hours of technical electives which students may utilize to broaden their base of knowledge.
a. Solid State Electronics: ELEC 3222, 4221, 4222, 4240 and 4241.
b. Energy Conversion: ELEC 3222, 4202 and 4205.
c. Control Systems: ELEC 3220, 4215, 4216, 4251 and 4261.
d. Computer Science: ELEC 3220, 4215 , 4222, 4230, 4232, 4270 and 5205.
e. Microwave and Antenna Systems: ELEC 4213, 4230 and 4232.
NOTE: Projects I or II, ELEC 4991 or 4992 can be taken for 3 semester hours credit in any of the areas of concentration.
The minimum requirements for the degree of Bachelor of Science in Electrical Engineering are as follow (for the freshman and sophomore years, see the common engineering requirements previously listed):

## JUNIOR YEAR

ELEC 3201
Circuit Analysis II
ELEC 3211,3213
Electronics 1 MECH 3311 Engr. Thermo Technical Elective (See Note 3)

ELEC 3202
Transform Math. 3
ELEC 3212
Electronics II 4
ELEC 3221
Matrix Comput. 3
ELEC 4211
EM Field Theory 13
H \& S Elective
(See Note 2)
$\overline{17}$

## SENIOR YEAR

ELEC 4201, 4203
Energy Conv. I
ELEC 4212
EM Field Theory II
Elec. Engr. Elective (See Note 4)
H\&S Elective (See Note 2)

ELEC 4231 Commun. Theory Elec. Engr. Elective (See Note 4) Technical Elective
4 (See Note 3) H \& S Elective 3 (See Note 2)

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3

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

NOTE 4 Upper division courses in Electrical Engıneering, such as: ELEC 4202, Electrical Power Systems; ELEC 4205, Continuous System Simulation; ELEC 4213, Antenna Theory and Design; ELEC 4221, Pulse and Digital Circuits; ELEC 4222, Logıcal Design and Switching Circuits; ELEC 4240, Quantum Electronics: ELEC 4241, Physical Electronics; ELEC 4251, Control System Engineerıng, ELEC 4261, Network Synthesis; ELEC 4991-4992, Elec. Engr. Projects: ELEC 5205, Hybrid Simulation Techniques.

## 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 backgound 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.
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.

As part of the requirements for a degree of Bachelor of Science in Mechanical Engineering a student may choose one of the following concentration areas:
a. Design and Manufacturing:

MECH 4361, Metallurgy
MECH 4381, Manufacturing Operations I
MECH 4382, Manufacturing Operations II
3 semester hours Engineering or Math Elective
b. Energy Systems (4 of the following courses); MECH 4313, Heat Transfer II
MECH 4315, Ventilation and Aır Conditioning MECH 4316, Energy Conservation and Management
MECH 4317, Fundamentals of Solar Engineering
MECH 4351, Nuclear Engineering
c. Mechanical Systems:

MECH 4325, Advanced Mechanics of Materials
MECH 4334, Engineering Acoustics and Noise Control

MECH 4371, Mechanical Vibrations 3 semester hours Engineering or Math Elective
d. Fluid Power Systems:

MECH 4309, Gas Dynamics
MECH 4310, Fluid Power I
MECH 4331, Turbomachinery
MECH 4333, Fluid Power II
To qualify for the degree of Bachelor of Science in Mechanical Engineering the student must satisfy general University requirements and complete the following curriculum (for the freshman and sophomore years, see the common engineering requirements previously listed.)


| SENIOR YEAR |  |  |
| :---: | :---: | :---: |
| MECH 4311 |  | ELEC 4201 or |
| Heat Transfer 1 | 3 | MECH 4312 |
| MECH 4322 |  | Energy Convr. |
| Mech. Design |  | Power Gen. |
| Anal. II | 2 | MECH 4323 |
| MECH 4344 |  | Mech. Design |
| Dyn. \& Control of |  | Anal. III |
| Machines II | 3 | MECH ENGR ELEC |
| MECH ENGR ELEC |  | (See Note 4) |
| (See Note 4) | 3 | TECHNICAL ELEC |
| TECHNICAL ELEC3 |  | (See Note 3) |
| (See Note 3) | 3 | H \& S ELEC |
| H \& S ELEC |  | (See Note 2) |
| (See Note 2) | 3 |  |

NOTE 2: A 6 or 9 hour sequence terminating at the 3000-4000 level in humanities or social science is required. Of the total courses taken 9 semester hours must be humanities and 6 semester hours must be social sciences from an approved list.
NOTE 3: Upper division course in Engineering, Mathematics, Physics, etc., in support of concentration area. Advisor's approval required.
NOTE 4: A 6 semester hour concentration of upper division Mechanical Engıneering courses to gain depth in such areas as Energy Systems, Fluid Power Systems, Mechanical Systems, and Design and Manufacturing, is required.

## 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 page 48), detailed requirements are as follow:

[^5]mester hours from the upper division as approved by the advisor.
CHEM 1111 and 1112
MATH 1321
PHYS 2511, 2512 or 2111, 2112
Non-technical electives: 30 hours which include:
(a) Social Sciences: courses offered by the departments of sociology, anthropology, economics, geography (other than physical), history, political science and psychology
(b) Humanities: courses offered by the departments of art, English, foreign languages, music, philosophy, and communication and fine arts.
These non-technical electives must include:
(1)twelve semester hours in the Humanities, including at least six semester hours in one of the following languages: French, German, Japanese, Russian or Spanish.
(2) six semester hours in the social sciences and
(3) twelve 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.

## DIVISION OF 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 Division of Engineering Technology offers six 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 Division of Engineering Technology also offers a major in Industrial Arts leading to a Bachelor of Science in Technology degree. A complete outline of the Industrial Arts major can be found on page 86. A grade of $C$ or better must be attained in all upper division (3000-4000) Engineering Technology courses required in each major.

## ENGINEERING <br> TECHNOLOGY CORE

## FRESHMAN YEAR

ENGL 1101
Engl. Comp.
MATH 1213
Alg. \& Trig.
TECH 1411
Intro. to Tech.
TECH 1511 Graphics 1

ENGL 1102
Engl. Comp.
MATH 1321
Anal. Geom. \& Cal. 4
TECH 1811
Elect. Tech. I
TECH 2555 Arch. Design I

| TECH 1611 |  | ENGR 1011 |  |
| :---: | :---: | :---: | :---: |
| Wood Indust. | 3 | Engr. Comp. |  |
| TECH 1711 |  | Prog. | (2) |
| Mach. Prod. Tech. | 3 | or |  |
| *ROTC |  | TECH 1010 |  |
| Aerospace | 1 | Intro. to |  |
| or |  | Comp. Usage | 2 |
| *PHED |  | *ROTC |  |
| Phys. Activity |  | Aerospace | 1 |
|  |  | or |  |
|  |  | *PHED |  |
|  |  | Phys. Activity | 1 |
|  | 17 |  | 17 |
| SOPH | OM | RE YEAR |  |
| ENGL 21-- <br> (See page 48 .) | 3 | ENGL 21-(See page 48 .) | 3 |
| PHYS 2111 |  | PHYS 2112 |  |
| Gen. Phys. | 4 | Gen. Phys. | 4 |
| TECH 2944 |  | CHEM 1051 |  |
| Anal. for |  | Gen. Chem. | 4 |
| Engr. Tech. | 4 | TECH 3350 |  |
| TECH 1451 |  | Fluid Power |  |
| Intro. to Survey | 3 | (See Note 3) | 3 |
| (See Note 1) |  | TECH 2511 |  |
| COMM 1311 |  | Desc. Geom. |  |
| Public Spch. | 3 | (See Note 4) | 3 |
| (See Note 2) |  | *ROTC |  |
| *ROTC |  | Aerospace | (1) |
| Aerospace | 1 | or |  |
| or |  | *PHED |  |
| *PHED |  | Phys. Activity |  |
| Phys. Activity |  |  |  |
|  | 18 |  | 18 |

*A minimum total of 4 sem. hrs. of $P E$. and/ or ROTC is required for graduation.
NOTE 1: Electronics majors take TECH 1821
NOTE 2: Electronics majors take TECH 2821. Computer Systems majors take TECH 2251
NOTE 3: Electronics majors take COMM 1311 Architecture majors take TECH 1555. Construction majors take TECH 2431.
NOTE 4: Electronics majors take TECH 2831 Construction majors take TECH 3451 or TECH 3591. Forest Product students take TECH 2611 Computer Systems majors take ELEC 3220

## ARCHITECTURAL TECHNOLOGY

Architectural Technology is that branch of Engineering Technology that concerns itself with those phases of architectural and engineering design as related to buildings. The purpose of the program is to teach the student design principles and drafting techniques that will enable him to perform tasks that are now required of the architect and the engineer. The course offerings are engineering oriented with emphasis on architectural practices and principles.
HIST 2601
U.S History
TECH 3400
Forces \&
Forces Systems
TECH 3531
Mech. Equip. I
TECH 2556
Site \& Environ.
Planning
TECH 2431
Tech. Writ
TECH 3491
Estımating

HIST 2602
U.S. History
TECH 3521
Arch. Models
TECH 3532 Mech. Equip. II 3
TECH 3401 Strength
TECH 4525 BIdg Codes \& Regs
TECH 2561 Bldg. \& Const Systems

TECH 3471
Structural Design
TECH 3520
Arch. Design II
TECH 3411
Ind. Materials
TECH 4530
Arch. Specs. \&
Contracts
Elective (Tech)

TECH 4520
Const. Meth. \& Equip.
TECH 4515
Arch. Design II
TECH 4944 Prob. in Tech. 3
TECH 3472 Struc. Design II
Elective (Gen)

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## COMPUTER SYSTEMS TECHNOLOGY

This area of study is designed to prepare the student for positions that require a knowledge of programming and the application of computers in various industries. Electives may be selected to provide a strong background in one or more areas of study.

| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| HIST 2601 |  | HIST 2602 |  |
| U.S. History | 3 | U.S. History | 3 |
| Elective (General) | 3 | Elective (General) | 3 |
| TECH 4462 |  | TECH 3422 |  |
| Insp. \& Qual. |  | Metal Mfg. Proc. | 3 |
| Contr. | 3 | TECH 3271 |  |
| TECH 2431 |  | Comp. Sim. Tech. | 4 |
| Tech. Report |  | Electronics Elective | 3 |
| Writing | 3 |  |  |
| TECH 3251 |  |  |  |
| Data Structures | 4 |  |  |
|  | 16 |  | 16 |
| SENIOR YEAR |  |  |  |
| COMM 1311 |  | TECH 4381 |  |
| Pub. Speaking | 3 | Prin. of Supvr. | 3 |
| Elective (General) | 3 | TECH 4271 |  |
| TECH 4261 |  | Comp. Tech. |  |
| Compt. Appli. in |  |  |  |
| TECH 4251 |  | TECH 4834 |  |
| Assem. Lang. | 4 | Dig. Sys. in Tech. | 3 |
| TECH 4831 |  | TECH 4944 |  |
| Comp. Tech. 1 | 3 | Prob. in Tech. | 3 |
|  |  | Elective (General) | $3$ |
|  | 17 |  | 16 |

## 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.

HIST 2601 U.S. History

TECH 3400
Forces \& Sys.
TECH 3411 Ind. Materials
TECH 3387 Const. Safety
TECH 3531 Mech. Equip. I TECH 3491 Estumating

## JUNIOR YEAR

| TECH 3412 |  | TECH 3472 |  |
| :---: | :---: | :---: | :---: |
| Soil Tech. | 3 | Struc. Design II | 3 |
| TECH 3414 |  | TECH 4520 |  |
| Const. Adm. | 3 | Const Meth. | 3 |
| TECH 3471 |  | TECH 4510 |  |
| Struc. Design I | 3 | Const. Plan |  |
| Elective (Technical) | 3 | \& Sch. | 3 |
| TECH 3440 |  | MGMT 4420 |  |
| Proj. Cost Eval. | 3 | Human Rel. in Bus. | 3 |
|  |  | Elective (Technical) | 3 |
|  | 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, employing most modern equipment found in industry. Specific requirements for this area are as follow:

| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| HIST 2601 | HIST 2602 |  |  |
| U.S. History | 3 | U.S. History | 3 |
| TECH 3440 |  | TECH 2431 |  |
| Proj. Cost Eval. | 3 | Tech. Report Writ. | 3 |
| TECH 1451 |  | TECH 3822 |  |
| Intro. to Survey | 3 | Cont. Instru. | 4 |
| TECH 3811 |  | TECH 4801 |  |
| Elect. Commun. | 3 | Antenna Tech. | 4 |
| TECH 3821 |  | TECH 4832 |  |
| Indus. Elect. | 3 | Comput. Tech. II | 3 |
| TECH 4831 |  |  |  |
| Comput. Tech. I | 3 |  |  |
|  | 18 |  | 17 |
| SENIOR YEAR |  |  |  |
| TECH 3411 |  | TECH 4381 |  |
| Indust. Materıals | 3 | Prin. of Superv. | 3 |
| TECH 3841 |  | TECH 4811 |  |
| Adv. Appl. Elect. | 3 | Adv. Elec. Commun | . 3 |
| TECH 4821 |  | TECH 4841 |  |
| Microwave Tech. | 4 | Video Commun. | 3 |
| ECH 4834 |  | TECH (Elective) | 3 |
| Digital Syst. | 4 | 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 program are: Production Management, Forest Products, Industrial Safety, Drafting and Design, and Supervision. Areas of opportunity for a student having a background in Manufacturing Technology include production management and supervision or positions in specialized staff groups such as Industrial Engineering, Manufacturing Engineering, Quality Assurance, Process Engineering, or Safety Engineering.

```
JUNIOR YEAR
    3 HIST 2602
```

HIST 2601
U.S. History

TECH 2431
Tech. Report Writing
Elective (Technical)*
TECH 3400
Forces \&
Force Systems
TECH 3440
Proj. Cost Eval
TECH 3411
Indus. Material. $\qquad$
SENIOR YEAR
TECH 4462
Insp. \& Qual. Cont. 3
TECH 4464
Prod. Control
Elect (Technical)

TECH 3386
Indus. Safety TECH 3421
Mfg . Proc.
Elect (Technical)*
TECH $\ddagger 460$ Motion \& Time Analysis

TECH 4381
Prin. of Superv.
TECH 4466
Plant Layout Elect (Technical)* Elect (General)

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*Supervision Concentration take TECH 3401, 4468 , 4470, 4944; MGMT 3110, 3710, 4220, 4420 or PSYC 3301.
*Production Management concentration take TECH $3718,3401,3410,3505,3422,4591,4571$, 4468, 4844.
*Drafting and Design concentration take TECH 2512, 3401, 3471, 3505, 3572, 3573, 4571, 4591, 4944.
*Industrial Safety concentration take BIOL 1631; TECH 3387, 3921, 3931, 4470, 4951, 4952, 4961.
*Forest Products concentration take TECH 2651, 3611, 3601, 3631, 3931, 4944, 4661; MGMT 3110.

## INDUSTRIAL ARTS

This major is designed for students planning a teaching career in Industrial Arts, with the emphasis on the secondary school program. Specific requirements for this area are as follow:

## FRESHMAN YEAR

ENGL 1101

## Engl. Comp.

TECH 1411 Intro to Tech. TECH 1511 Graphics I
PSYC 1101 Gen. Psyc.
MATH 1213
Alg. \& Trig.
Elective
†PHED
†ROTC

ENGL 1102
Engl. Comp.
TECH 2911
Foun Ind. Arts Ed.
TECH 2555
Arch. Design 1
HLTH 1102
Personal HIth.
CHEM 1051
Gen. Chemistry
$\dagger$ PHED
or
$\dagger$ ROTC


SOPHOMORE YEAR

ENGL Any 2000
level course except 2601
TECH 1711
Mach. Prod. Tech. 3
TECH 1611
Wood Industry
PHYS 1111
Found. of Physics
COMM 1311
Public Speaking
$\dagger$ PHED
or
$\dagger$ ROTC

ENGL Any other 2000 level course except 2601
TECH 3718
Metal Form. \& Fab. 3 TECH 3601
Prin. of Bldg Const. 3 or
TECH 3611
Ind. Wood Proj. 3
PHYS 1112
Found. of Physics
EDFD 2011
Found. of Educ.
$\dagger$ PHED
or
$\dagger$ ROTC

THE HERFF COLLEGE OF ENGINEERING
minimum total of 4 semester hours of PHED and/or ROTC is required for graduation.

CH 1811 Elec. Tech. I CH 3350 Fluid Power CH 3410 Plastics Mater.
Proc.
DPS 2111
Human Growth $\& \mathrm{Dev}$ ST 2601 U.S. History BT 2213 Ltr. \& Layout

## SENIOR YEAR

## TECH 4362

 SCED 4841 Gen. Shop Appl. 3 Dir Student TECH 4361 TeachingOrg.-Gen. Shop
SCED 4441
Cur. Probs. \&
(Note 1) $3 \begin{gathered}\text { Trends } \\ \text { Educ Req }\end{gathered}$
3
Elective
Elective (Note 2) 3
3
*Electives
(Note 3) $\quad \frac{3}{15}$
JUNIOR YEAR
3 Pow. Tech. 3 SCED 3384 Mtl's. \& Methods* HSIA 3 EDPS 3121 Psyc. of Learning 3 HIST 2602 U.S. History 3
ART 2221
Graphic Prod. $\qquad$
TECH 1821 Elec. Tech. II 3 or
3 TECH 3831 Ind Arts Electr 3 TECH 4355 3

NOTE 1: One course ( 3 semester hours) in one of the following humanities: art, music, foreign languages, philosophy.
NOTE 2: One course ( 3 semester hours) in one of the following social sciences: anthropology, economics, geography, political science, sociology
NOTE 3 Elective must be applicable for secondary school teachers.
*Three (3) semester hours must be 3000-4000 level courses.

THE MINORS

## 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 

RObert J. hatala, B.S., Ph.D., Dean

Room G-1, Johnson Hall

## PURPOSE

The University College offers nontraditional degrees for those students whose experience, talents, and interests are best served through a program which emphasizes personally designed education. Through the University College, faculty, students, and off-campus professionals have the opportunity to work together unrestricted by departmental or college boundaries. The college provides individually designed programs for persons whose career goals, academic needs and interests are not met by existing majors, but by appropriate combination of integrative interdisciplinary courses offered by the University College, existing courses offered by other colleges, credit by examination, credit for non-traditional learning, and internship experiences. For faculty across the University, the University College provides the structure to explore and develop interdisciplinary ventures that may later be subsumed into other degree-granting units. The college seeks to create and maintain a spirit of academic community through careful and concerned advising, and interaction outside the classroom between students, faculty, and staff. The Bachelor of Liberal Studies and Bachelor of Professional Studies degree programs are complementary to the University's role of meeting the academic needs of a diverse population in an urban setting.

## ORGANIZATION

The University College both depends upon and contributes to existing programs at the University through creative use of existing faculty and programs to satisfy legitimate degree program needs which are not currently met. The college has no permanent or full-time faculty of its own, drawing instead on the faculty of other colleges of the University for instructors and advisors. These faculty members serve on a short-term basis while maintaining primary affiliation with their own departments. The knowledge and experience of the faculty from several disciplines enables the University College to offer truly interdisciplinary courses and a broader base for effectively advising students. At the same time, faculty serving the University College gain new perspectives and associations which they may contribute to their own colleges.

The Faculty Council is composed of twelve faculty members from the other five colleges of the University. The Council is jointly responsible with the Dean of the University College in establishing requirements for the selection of the faculty, determining admissions, curriculum and degree requirements, and approving group contract degrees designed for students with similar program needs. In addition, the Council gives advice and counsel to the dean. The students of the University College also serve an advisory role to the Faculty Council and the dean.

## ADMISSIONS

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 extention, correspondence or armed services courses, provided they are an integral part of the degree program. A minimum of 60 semester hours of the degree program must be received from a four-year institution.

## THE UNIVERSITY COLLEGE DEGREES

## The Contract Degree

Students enrolling in the University College may elect either of two degree programs: the Bachelor of Liberal Studies (BLS) or the Bachelor of Professional Studies (BPS). Both of these degrees must be awarded for programs which are systematic, yet are sufficiently flexible to permit students and advisors to design individual programs of study, i.e., learning contracts.

All contracts will be reviewed and approved by the administration of the University College, but individual contracts will be designed by a Contract/Advising Committee whose responsibility is to assist the student in the development and execution of a degree program which serves the student's needs and meets the academic requirements of the University College and of Memphis State University. The chairperson 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 also directs the student in the preparation of a portfolio to obtain credit for knowledge gained through experience or non-traditional instruction; see page 26 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
oasis of decisions and judgments. The Liberal Studies area is composed of six studies, plus Mathematics 1181 or another mathematics course at the same level or above. 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; see p. 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 department 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. This component of the program includes a Coordinated Study Program of at least 30 upper-division hours in at least two academic disciplines, plus a special synthesizing project ( 9 semester hours). Credit may be earned through courses offered by departments in the other degree-granting colleges, credit by examination, credit for experiential learning, internships or apprenticeships, independent studies, additional Thematic Studies courses, and the Special Project. For a University College student, the Coordinated Study Program corresponds to a departmental major. Students must average $C$ or above in 30 upper-division hours of their Coordinated Study Program.

Examples of Coordinated Study Program areas follow:

## B.P.S.

Aviation Administration
Commercial Music
Human Services
Health Care Education
Political Communications
Nuclear Industrial Operations

## B.L.S.

Language and Mind Black Studies
Cross-Cultural Comparison of Art Humanities
Fine Arts in Promotion
Women's Studies

The Special Project will be designed by the Contract/Advising Committee as a synthesizing activity, interdisciplinary in nature, by which the student demonstrates in a sustained manner comprehension and command of the complex skills and understanding encompassed in the degree program. The Special Project carries 9 semester hours credit.

## LIBERAL STUDIES



THEMATIC STUDIES
UNIV 3500-3599
(See note above)
for the BPS degree
6-9
for the BLS degree
semester hours
12.18
semester hours

INDIVIDUAL STUDIES
includes:
Coordınated Study Program, upper division hours
UNIV 4996 Special Project
for the BPS degree
for the BLS degree

## 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, etther COMM 2361 or POLS 4407
(b) Electives: ANTH 3422; CJUS 4531, MUHL 2101, POLS 4212; SOCI 3402, 3422, 4420 , COMM 3373, 4373, 4375, 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 guidelınes 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) (6) HIST 4010 History of Women (3)

B Additional Courses. Select 9 hours
ENGL 3100 Femınine Consciousness in Western Literature
HLTH 4204 Workshop in Human Sexuality HMEC 4201 Preparation for Marriage PSYC 4503 Psychology of Women PSYC 4503 Human Sexuality
SOCI 3432 Sociology of Sex Roles
SOCI 3831 Marriage and the Family ECON 4910 Women and Work UNIV 4380 Independent Siudy( 1-3)

## Evaluation

All members of the Contract/Advising Committee evaluate the student's performance, recognizing that each student enrolled in the University College must meet all University credit-hour and QPA requirements. The following methods are used to evaluate a student's perfor-
mance: the traditional grading systems, Pass/Fail and Credit/No Credit options supplemented by written narrative evaluations, credit or placement by examination, Advanced Placement examinations for degree credit where these are available, and credit for validated learning from experience or non-traditional instruction.

## Residence Requirements

The usual residence requirements Memphis State University obtain: 33 the final 66 semester hours required for the degree must be completed at Mem phis State University; see page 48.

# The Department of Nursing 

LOIS HOLLOMON, B.S.N., M.S.N., Chairman

Room 316, Manning Hall

## PURPOSE

he purpose of the nursing program is to rovide the opportunity for registered urses with associate degree or diploma ursing background to attain a broader oncept of nursing at the baccalaureate evel.
The student in this professional nuring program will work to develop the bllowing competencies:

1. Utilization of the nursing process in planning and providing care to clients in a variety of primary, secondary, and tertiary settings.
2. Application of a broad knowledge of bio-psychosocial principles in planning and providing client care.
3. Utilization of an expanded body of nursing knowledge in the care of clients with complex health problems and clients in need of health promotion and health maintenance.
4. Relationship with other health team professionals in a collaborative and interdependent manner and supervision of the less experienced nurse.
5. Utilization of values of self, individuals, families, and groups in the implementation of the nursing role in the health care delivery.
6. Demonstration of beginning leadership/management skills in the supervision of health care and health care providers.
7. Application of additional knowledge and proficiency in a selected
area of nursing relevant to the individual nursing practice.
8. Effective relationship with clients, families, groups, and other health professionals using more advanced communication skills.
9. Implementation of effective health teaching to individuals and groups.
10. Utilization of selected components of research, methodology, and application of research findings in nursing practice.
11. Recognition of the need for continuing education which is responsive to societal changes that have an impact on nursing.

The present associate degree nursing program will be phased out in the summer of 1980. See prior Bulletin for details regarding this program.

## ADMISSIONS

Application for admission to the Nursing Program is made directly to the Nursing Department at Memphis State University. Application must also be made to the Admission Office or Read mission Office.

## Admission Requirements

1. Graduation from an accredited associate degree or diploma nursing program.
2. Prerequisites. 73 semester hours distributed as follow

* Bıological Sciences (includıng human anatomy and physiology, and microbılogy) 12 Behavioral Sciences
Communication Skills
Chemistry (1051 and 1052 or equivalent)

Humanities Electıve (Art, Music,
Theatre and Communication Arts, Philosophy, Foreign Language)
** Nursing
3 Current Tennessee licensure as a registered nurse.
4. Minimal Q.P.A. of 2.00

5 In the event that there are more applications than spaces avaılable, acceptance of students for the entering nursing class will be granted on the basis of rank order. The rank order will be determined by a weighing of varıous factors.
6 All materıals must be on file by April 15, 1980 for consideration for admıssion to the Fa!l 1980 class.

* College credit with minimal grade of "C".
** Transcripts of diploma school graduates will be individually valuated. Ungraded nursing credit will be granted for the equivalency of lower division courses up to 35 total hours of credit.


## Degree Requirements

A total of 136 semester hours of credit is required for the Bachelor of Science degree in Nursing. A student must attain a minimum quality point average of 2.0 to graduate.

## Course Requirements

| Nursıng | 61 |
| :--- | ---: |
| Bıologıcal and Physical Science | 23 |
| Socıal Sciences | 12 |
| Mathematıcs | 3 |
| Statıstıcs | 3 |
| Communicatıon Skılls | 12 |
| American Hıstory | 6 |
| Research | 3 |
| Physıcal Educatıon | 4 |
| Electıves | 9 |
| Total | 136 |

The prospective student should seek advice from the Nursing Department regarding course selection.

# Memphis State University Honors Program 

JOSEPH R. RILEY, B.S., M.A., Ph.D., Director

Room 128, Old Brister Library

## WHAT THE HONORS PROGRAM IS

The Honors Program has been created to provide exceptional educational opportunities for exceptionally able students. It is expressly intended to nurture the highly motivated, independent individual who seeks a stimulating environment appropriate to his unusual potential. The Program offers a series of specially designed honors sections and courses, from which students may chose those courses which best suit their own interests and needs. In order to graduate with honors, a student must complete successfully a minimum of 18 semester hours of honors work, at least 12 hours of which must be upper-division (junior and senior level). Depending upon which honors track is chosen, a student who completes the Honors Program can be graduated with department, college, and/ or University honors. For example, a student might graduate "with honors in English (or economics, or psychology, etc.)," "'with honors in Business Administration (or Engineering, etc.)," "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, 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 offices of the Director and the

Secretary-Receptionist are located; as well as a seminar-conference room and an honors lounge, open to all students who are active in the Honors Program.

## ADMISSION TO THE PROGRAM

Incoming freshmen who score at least 26 on the ACT, or its equivalent on other tests, are invited to participate. Transfer students or students previously enrolled at Memphis State University are eligible for the program if they have an overall grade point average of 3.0 for freshmen and sophomores and of 3.25 for upperdivision students. Those who do not qualify in one of these ways will be considered upon direct application or receipt by the Director of a recommendation from high school or college faculty.

## CURRICULUM AND REQUIREMENTS

Description of a typical honors plan is as follows:

Lower Division: Honors students at this level take specially designated sections of freshman and sophomore courses offered by departments throughout the University. Enrollment is limited to fifteen honors students, and these sections are taught by specially selected honors faculty. 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 admit-
tance to advanced-level honors course
Upper Division: After the basic cours in honors have been completed, hong participants must opt for honors at $t$ department, college or University lev Regardless of the individual's choice pursue department or college hono (and regardless also of the availability such programs in his chosen field), may continue toward graduation wi University honors. This plan consists the upper division of four honors cours in which students from across University may participate. Topics interdisciplinary in nature and vary fro semester to semester. An honors thes or project may be substituted for one these courses. Descriptions of colle and departmental programs are availab in the appropriate college or departmer or in the office of the University Hond Program.

## REQUIREMENTS AND STANDARDS

During the freshman and sophomo years the honors participant must mai tain an overall QPA of at least 3.0 remain in good standing in the progran the minimum QPA for continuing at $t$ h junior and senior levels is 3.25 . There provision for a one-semester probatio ary period before a participant is disco tinued. A minimum grade of $B$ is requir in each honors course in order for it count toward fulfilling the honors cour requirement, but regular credit for th course will be earned if the grade is low than a B.

# The Office of International Studies 

J. REX ENOCH, B.S., M.A., Ph.D. Director

Room 130, Old Brister Library
he Office of International Studies coorinates and assists in the development of te University's teaching, research and ervice activities in the international eld.
Undergraduate interdisciplinary prorams for which the Office of Internaonal Studies has coordinating responbility are those in Latin American and frican studies, international relations nd international business. General desriptions of the programs appear elsehere in the Bulletin, and detailed inforlation on them may be obtained from the ffice of International Studies and rogram advisors.
With the Office of the Vice President for ublic Service and Continuing Education, his office is responsible for the conduct f Memphis State sponsored overseas tudy and work programs. Current inforlation on these programs and on many thers open to Memphis State students is vailable for reference in this office, and tudents will be assisted in selecting prorams which will best serve their educaonal needs. Participation in study-and ork-abroad programs is not limited to ose enrolled in the international stuies programs, but is open to all qualified ersons.
The Office of International Studies is Iso prepared to assist students who are iterested in participating in overseas xchange programs sponsored by govrnmental and private organizations. Adanced graduate students engaged in forign area and international research and tudy may obtain information about grant pportunities that may be available to hem. In cooperation with the Office of ponsored Programs, the Office of Interational Studies will give advice and ssistance to those interested in applying or financial aid from non-University ources.
The office has responsibilities in a road range of other international prorams in which the University is currentengaged or is prepared to engage. mong these activities are the following: evelopment and administration of inerinstitutional consortia in the fields of ternational studies and programs, inluding overseas development and techical assistance; the offering of nonredit courses, orientation seminars and
training programs for businesses and other organizations with international interests; maintenance of a "talent bank" file on University personnel possessing language skills and foreign area expertise; sponsorship of lectures and seminars on international topics of interest to the University and non-University communities; and dissemination of information about international programs of the University.

## INTERNATIONAL STUDIES African Studies

Memphis State University's interdisciplinary program in African Studies, coordinated by the University's Office of International Studies, is open to students majoring in another interdisciplinary field or in a traditional discipline in any of the undergraduate colleges. Those who successfully complete the program will be awarded the Certificate in African Studies. The student's record will reflect the award of this certificate.

The African Studies certificate program is designed to serve the needs of students seeking a general education that emphasizes knowledge of this important world area, those who plan to teach in the elementary or secondary schools, and those who plan to do graduate work in an African or Afro-American field.

The candidate for the Certificate in African Studies will take courses in the fields of African anthropology, geography, history, and politics. There are no special language requirements for the program, but students planning to do graduate work in the 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, 4740, GEOG 3301, 3302; HIST 4281, 4282, 4283 , 4284; POLS 3308, 3309, INST 4301, 4302. At
least one course must be taken within each of the four departmental areas (anthropology, geography, history, and political science), and the interdisciplinary sequence course, INST 4301-4302, is required of all candidates for the Certificate in African Studies.

## International Business

A program leading to the degree of Bachelor of Business Administration with a major in International Business is offered within 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 page 64 .

## International Relations

The International Relations program provides the opportunity to bring the knowledge of several traditional disciplines to bear upon a focal point of human relationships and problems which cross national and cultural boundaries. The program is designed to serve the student who seeks knowledge of the range of contemporary and possible future problems which confront international society and understanding of alternative national and cultural perspectives on solutions to those problems. The program also serves the needs of students planning a career in the Foreign Service or related agencies of the federal government and students preparing for employment abroad in the private sector, or in international organizations, private or public.

International Relations is offered as a major only. The program emphasis is on the course work in history, political science, economics, and geography, with contributions from other social science disciplines. Within the program the student is required to concentrate a part of his work in the field of American foreign policy or in one of six areas of the world. Students are encouraged to pursue the study of a foreign language and to seek opportunities for travel and study abroad. The student's program should beplanned in consultation with the International Relations Advisor. Course requirements are listed below. The International Relations Advisor is David G. Hoovler, Department of Political Science.

## INTERNATIONAL RELATIONS

The Major: 30 semester hours, including ECON 4340, 4350; POLS 2501, 4501, 4508, and 3505 or 4504; INTS 4601; and three courses, in at least two disciplines, from one of the following areas of concentration:
(a) American Foreign Policy: ECON 3508, GEOG 4421; HIST 3802, 4811; POLS 2301, 3506, 4302, 4506; ether POLS 3505 or 4504.
(b) Western Europe: GEOG 3401, 4304; HIST 3200, 4145, 4461, 4462, 4502, POLS 3302, 4507
(c) Latin American: ANTH 3930 or SOCI 3930; GEOG 3314, 3315, 4314, 4315; HIST 3212, 4230, 4240, 4250; POLS 3306. 4306, 4503.
(d) Asia: GEOG 4306; HIST 3291, 4292, 4294 , 4295; POLS 3307, 4307.
(e) Soviet Union: GEOG 4305; HIST 4162. 4163, POLS 4305, 4502, 4505.
(f) Sub-Saharan Africa: ANTH 3242, 4742; HIST 4281, 4283, 4248; POLS 3308.
(g) Middle East and North Africa: HIST 4282, 4284, POLS 3309.

NOTE: The student electing the major in International Relations is advised to take the following courses to insure that he has an adequate background for the required courses in the major: ECON 1010, 2110 ; GEOG 2301, 2311; HIST 1301, 1302.

## Latin American Studies

The Latin American Studies program offers an interdisciplinary approach to the study of Spanish and Portuguese America. It is designed primarily to serve the needs of students who are planning a career in Latin America or who will work with public or private institutions in capacities that require a broadly based knowledge and understanding of Latin America. It is also structured to meet the needs of students who wish to prepare for graduate study in programs permitting a Latin American concentration, either within a traditional discipline or in an advanced interdisciplinary program. This program is centered on the Spanish and Portuguese languages and Latin American geography, history, literature, and politics. Appropriate courses in anthropology, art, economics, and sociology are also included in the program.
The student may elect Latin American studies as a major or minor. It is strongly recommended, but not required, that the student electing to major in this interdisciplinary field satisfy requirements for a collateral major in one of the traditional disciplines represented in the program. The student is advised that proficiency in
spoken Spanish and Portuguese is ver desirable for those contemplating a c reer in Latin America and to participate i Memphis State University study-abroa programs in that area. The student program should be planned in consulte tion with the Latin American Studie Advisor. Course requirements are liste below. The Latin American Advisor John A. Sobol, Department of Geograph

## LATIN AMERICAN STUDIES

The Major: 24 semester hours, including 21 hour from the group of core courses and 3 hour from the group of electives listed below:
(a) Core Courses: GEOG 3314, 3315; HIS 3211, 3212; INTS 4201, POLS 3306; SPA 3511 or 3512.
(b) Elective Courses: ANTH 3232, 3332; AR 4162,4163 ; ECON 3580; GEOG 4314 4315; HIST 3200, 3231, 4240, 4250; POL 4306, 4503; SOCI 3930; SPAN 4561, 4562 NOTE: The student must have a readin knowledge of Spanish or Portuguese (to th proficiency level expected upon completion the second year college course) to satisfy th requirements of the major. It is recommende that he obtain a collateral major in one of th traditional disciplines represented in the pro gram.
The Minor: 12 semester hours, including GEO 3314 or 3315 ; HIST 3211, 3212 ; POLS 3308 NOTE: The foreign language requirement fo the minor is the same as for the major.

# The Urban Studies Program 

STANLEY E. HYLAND, A.B., M.A., Ph.D.<br>Coordinator<br>Room 130, Old Brister Library

he Urban Studies Program is interdisiplinary in nature and deals with issues nd problems in complex urban environhents. The program focuses attention on the city"-how it evolved, its structural ind functional characteristics, and alterhative directions for its growth. In addiion to the development of a conceptual ramework for the city, the courses in the Jrban Studies Program stress participaion in local research projects in the areas f housing, pollution, transportation, underemployment and urban life styles. An urban internship in a regional Mid-south oublic agency is both available and enouraged through the program.

The program's broad orientation and its ittention to the causes and consequencs of urban problems provides an excelent background for urban careers in oranizations such as community action gencies, urban social service agencies, ealth planning agencies, and local and ounty government.
The Urban Studies program is offered hrough the cooperation of the Depart-
ments 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 on page. The student's program should be planned in consultation with the Urban Studies Coordinator, Dr. S. Hyland.

## URBAN STUDIES

The Major: 33 semester hours including:

1) Urban Studies majors must take the Urban Studies Seminar 4001 and at least one three hour course from the following list of social science methods courses: ANTH 3225, GEOG 4502, POLS 3100, SOCI 3322 or 4632. A second course may be applied to the urban studies major if the student wishes.
2) four courses from the following core: ANTH 4411, Urban Andhropology ECON 4510, Urban and Regional Economics GEOG 4431, Urban Geography HIST 3871, U.S. Urban History POLS 3224, Urban Politics SOCI 4410, Urban Society
3) five courses from the following electives: ANTH 4410, Complex Societies ANTH 4752, Applied Anthropology ECON 3210, Labor Economics ECON 3810. Manpower Program Planning ECON 3811, Manpower Program Administration ECON 4750, State and Local Finance GEOG 3211, Economic Geography II HIST 4881, Black American History
POLS 4221, Urban Development Administration
POLS 4224, Urban Problems
SOCI 4620, Human Ecology
SOCI 4812, Race Relations
4) Three hours of approved internships from the following course numbers:
URBN 4995, SOCI 4912, POLS 4230 or 4231, or ANTH 4985 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).

# The Department of Aerospace Studies 

BERT N. WALKER, B.A., M.A. Lt. Colonel United States Air Force, Professor of Aerospace Studies<br>Room 404, Jones Hall

The Department of Aerospace Studies provides a four-year program of instruction for all qualified U.S. citizens, male and female, divided into two phases, each of two years duration. The first, termed the General Military Course, offers instruction in the foundation of leadership and Aerospace-age citizenship. The second, termed the Professional Officer Course, builds upon these foundations in developing upperclassmen who are to become Air Force officers and serve on active duty upon graduation and commissioning. Students may apply for the two-year or four-year program, or they may enroll one year prior to applying for the two-year program.

Instruction in Aerospace Studies has been an important phase of the curriculum at Memphis State University since 1951. Active duty Air Force personnel, approved by the University President, are detailed by the Department of the Air Force to administer the instructional program. Air Force officers serve under appointment by the University as Professor or Assistant Professor of Aerospace Studies.
the general military course: The two-year (4 semesters) General Military Course consists of one hour a week of classroom instruction and one hour a week in Leadership Laboratory. Textbooks are furnished by the Air Force without charge. Air Force uniforms are furnished and must be properly worn and kept in good condition. A uniform deposit is required for all cadets at the time of registration. Cadets who successfully complete the General Military Course may apply for admission to the Professional Officer Course.

THE PROFESSIONAL OFFICER COURSE: The Professional Officer Course provides instruction and systematic training to selected eligible students who desire to qualify as officers in the United States Air Force while pursuing their academic studies at the University. Successful completion of the requirements for the Professional Officer Course and for a baccalaureate degree leads to a commission in the United States Air Force as a Second Lieutenant. To be eligible for selection to the Professional Officer Course, a student must have at least two years remaining at the University (undergraduate, graduate, or a combination). Final selection is based on academic standing, leadership potential, percentile score on the Air Force Officer Qualifying Test, and physical qualifications. Senior male cadets who are enrolled in the pilot category will engage in a flying program consisting of 25 hours of flight instruction and 2 semester hours of Elementary Aeronautics (ROTC 4413). All members of the Professional Officer Course receive a subsistence allowance of $\$ 100.00$ per month and are issued uniforms provided by the Air Force.

THE TWO-YEAR PROGRAM: All students who meet qualifying criteria, may apply for selection to the Professional Officer Course under the Two-Year Program if they are not in the Four-Year Program. Processing of applications for the Professional Officer Course begins in the Fall of each year. Application may be submitted through May 1 . If selected, the student will attend a six-week field training program during the summer prior to entry into the Professional Officer Course. Graduates of the six-week field training are enrolled in the Professional Officer Course with the same status as cadets in the four-year program.

AIR FORCE ROTC COLLEGE SCHOLARSHIP PROGRAM: Full scholarships which pay full tuition and fees, full book allowance, transportation to Memphis, and a tax free subsistence allowance of $\$ 100.00$ per month are available to entering freshmen and cadets enrolled in the Air Force ROTC programs. Details concerning qualifications and applications can be obtained from the Department of Aerospace Stu dies. (See Chapter 4, Scholarships)

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

MINOR IN AEROSPACE STUDIES: Up on successful completion of 18 semester hours in Aerospace Studies, a cadet may apply for a minor in Aerospace Studies.

SPECIAL STUDENT PROGRAM: This is available to all students who have not previously enrolled in an ROTC course in the University. AFROTC scholarship recipients are not eligible. This program ap plies to a student's first semester in any GMC course. The special student does not pay the uniform deposit, does not have to meet strict Air Force hair stan dards, does not wear the uniform. Ful credit is received for the course.

## Rullelin <br> Memphis State University

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The section which follows contains a listing of all departments in the University by the college in which they are located and a description of all course offerings. The official course title appears in boldface type following the course number. The figures in parentheses after the description of a course denote the number of semester hours of credit for that course. If the credit is variable, to be fixed in consultation with the instructor, that fact is indicated by the minimum and maximum credit, as BIOL 4000 (2-4).

Courses are numbered according to the following system:

1000-1999 Courses primarily for freshmen

2000-2999 Courses primarily for sophomores

3000-3999 Courses primarily for juniors

4000-4999 Courses primarily for seniors and for which graduate credit is not offered. (There is sometimes a corresponding 6000 number for which graduate credit is offered to graduate students.)

Course numbers have no reference to the semester in which the courses are taught.

The Schedule of Classes is published few weeks prior to the opening of ead semester and The Summer Session. contains a listing of the specific cours to be offered, with the time, place, ar instructor in charge of each section. also contains special announcemen concerning registration procedures an courses which may have been add since the publication of the Bulleti Copies are available in the office of th Associate Dean of Admissions ar Records (Records).

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

## THE COLLEGE OF ARTS AND SCIENCES

# ANTHROPOLOGY <br> ASSOCIATE PROFESSOR <br> THOMAS W. COLLINS, Chairman 

Room 122, Clement Humanities Building
uirements for the major and mınor are listed on e 56.

Honors Program in Anthropology
e Department of Anthropology offers an honors ogram in anthropology to the superior anthropology udent who desires a more intensive approach to d knowledge of the discipline, a deeper underonding of research skills, and an opportunity for iginal criticism and analysis To be elıgıble a udent must (a) have the approval of the Depatmen1 Honors Committee, (b) be an anthropology major, have attained at least junior standing, (d) have mpleted successfully Anthropology 1100, 1200, id one upper-division anthropology course, (e) aintained a cumulative grade point average of at ast 3.00 in overall studies, (f) maintained a mulative grade point average of at least 3.25 in thropology. Upon successful completion of four nors courses in anthropology (at least one of which ust be an independent study culminating in a search paper/thesis or research report) and a inimum of six hours in honors courses outside of pthropology, the student will receive on the diploma he special distinction "With Honors in nthropology". Details of the program are available the Department of Anthropology office.
IPORTANT NOTE: Anthropology 1200 may be taken pore Anthropology 1100 . Anthropology 1200 is a eneral prerequisite for the upper division courses; kceptions can be granted by individual instructors

## E010 ANTHROPOLOGY (ANTH)

100. Man's Place in Nature. (3). Man's place in ature, human origins, the fossil record from cheological excavations, the biological aspects of ace. [2201-1]
101. Man and Culture. (3). The origın and evelopment of human culture. The study of social plations, language, government, religion and ritual, nd the problems of developing nations or minority roups in the modern world. [2201-1]
102. Introduction to Archeology. (3). Description $f$ the archeological evidence for the development of uman culture from its earliest beginnings to the rise fivilizations. Introduction to the principles and hethods of archeology. [2203-1]
103. Urban Anthropology of Contemporary merica. (3). Anthropological interpretation of iverse and changing life patterns in American urban ciety. Specific attention is given to the crossultural analysis of divergent settlement patterns, inship networks and political, religious and conomic systems. [2214-1]
104. Indians of Tennessee and Adjacent Areas. 3). A survey of the archeology and enthnology of the outheast, with intensive study of the various Indian ultures of Tennessee and bordering states. [2202-1] 065. The Rise of Anthropological Thought. (3). in introduction to the rise of anthropology as a cience. Emphasis on anthropological thınkıng and heories of the 19th and early 20th century. PREREUUISITES ANTH 1100 and 1200 or permission of istructor. [2202-1]
105. Human Paleontology. (3). Examınation of the tominid fossil record starting with primate developnents; human evolution; human osteology [2202-1]
106. Peoples and Cultures of the World. (3). Same as Geography 3200). Survey of the major thnographic areas and of selected cultures of the vorld. [2202-1]
107. Ethnological Field Techniques. (3). Methods of collecting and interpretıng data pertaining to contemporary societies, professional ethics and legal responsibilities of investigators in cross-cultural research. [2202-8]
108. Ethnology of North America. (3). Description and distribution of aboriginal culturetypes of North America north of Mexico; comparisons and interrelationships during the pre- and post-contact periods. [0313-1]
109. Ethnology of Latin America. (3). Description and distribution of the peoples and cultures of South America and Mesoamerica; comparisons and interrelationships during the pre- and post-contact periods. [0308-1]
110. Ethnology of Africa. (3). Description and distribution of the peoples and cultures of Africa; comparisons and inter-relationships during the preand post-contact periods [0305-1]
111. Ethnology of Oceania. (3). Description of the peoples and cultures of Oceania (including Australia); comparisons and inter-relationships during the preand post-contact periods. [0314-1]
112. Archeological Field Techniques. (3). Experience in field excavations; preparation of specimens, use of survey instruments, photographing and keeping archeological records, map making of small ground areas. Hours individually arranged. PREREOUISITE: permission of instructor.
[2203-8]
113. Archeological Field Techniques. (3). A continuation of Anthropology 3321. PREREOUISITE: permission of instructor [2203-8]
114. Archeology of North America. (3). Description and distribution of prehistoric cultural remains in North America north of Mexico. Discussion and comparison of the major regional sequences, extending from the earliest evidences of human occupation until historic times [2203-1]
115. Archeology of Latin America. (3). Description and distribution of prehistoric cultural remains in South America and Mesoamerica, with emphasis on Mexico and Peru. [2203-1]
116. Archeology of Africa. (3). Description and distribution of archeological remains in Africa, discussion and comparison of the major regional sequences, extending from the earliest evidences of human occupation until historic times. Emphasis on the cultural achievements of pre-colonial Africa.
[2203-1]
117. Archeology of Europe. (3). Development of the varıous European civilizatıons and their influence and inter-relationships with other cultures through Europe and Eurasia [2203-1]
118. Archeology of Asia. (3). Description and distribution of prehistoric cultural remains in Asıa; discussion and comparison of the major regional sequences, extending from the earliest evidences of human occupation until historic times. [2203-1]
119. Social and Ethnic Minorities. (3). (Same as Sociology 3422). A comparative study of social and ethnic minorities in the United States and elsewhere with a focus on differences in cultural backgrounds, social relationships with the larger society, social, educatıonal, and legal problems; factors contributing to satisfactory and unsatisfactory adjustments of minorities. [2202-1]
120. Linguistic Anthropology. (3). Nature and usefulness of symbols, mechanisms by which they are communicated, relation of symbolic systems to thought and culture, comparative techniques used to reconstruct prehistoric languages. [2202-1]
121. Mexican Society and Culture. (3). (Same as Sociology 3930). A study of 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]
122. Anthropology and Education. (3). (Same as EDFD 4051). An advanced study of the 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 US subcultural groups with the public education system are examined. PREREQUISITE: permission of instructor [2214-1]
123. Contemporary Anthropological Theory. (3). Contemporary growth of theories and methods in anthropology. PREREOUISITES: 1100, 1200, or permission of instructor. [2202-1]
124. Human Adaptations. (3). Study of human populatıons and their variabiljty; examınation of the human adaptations in locomotion and manıpulation, facial structure, the brain and language, and reproduction, comparisons to the anatomy, physiology, and behavior of other primates. [2202-1]
125. 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]
126. Anthropology of Religion. (3). Comparative analysis of religious systems and their functional relationships to other cultural institutions; interrelations of myth, magic, and ritual; types of religious institutions and religious practitioners. [2202-1]
127. Cultural Change. (3). Internal and external factors causing change; theories of cultural evolution; social changes involved in the emergence of civilization; changes involved in industrialization.
[2202-1]
128. Political Anthropology. (3). Comparative analysis of political systems and their functional relationships to other cultural institutions; formation and segmentation of political structures; requisites of leadership and political control. [2202-1]
129. Archeological Field Control. (3). Methods of dealing with archeological field problems, individual instruction in collection, recording, and field analysis of both historic and prehistoric archeological data
[2203-8]
130. Archeological Field Techniques and Restoration. (3). Individual instruction in dealing with archeological field problems and methods of modern conservation and restoration techniques. PREREOUISITE: permission of the instructor.
[2203-8]
131. Evolution of Civilization. (3). Comparative investigation of the origins of civilization in the Old and New Worlds. Development and study of models to explain the cultural, social, political, and other changes that lead to and define civilization [2202-1] 4354. Archeology of the Holy Land. (3). A survey of the archeological remains in the Holy Land from the Stone Age to the early Christian Era [2203-1] 4370. Historic Archeology. (3). Review of the contributions of archeologists to historical research. The methods and techniques of the archeologists as required and moditied by the excavation and interpretation of historic materials. The allied specialties unique to Historic Archeology including documentary investigations and the conservation and restoration of existing structures. [2203-1]
132. Intercultural Communication. (3). (Same as COMM 4375). A study of the special problems encountered in communications between people of different cultural backgrounds. The study focuses upon understanding the communicative interaction between and among people with different national/cultural backgrounds and functioning more effectively in multi-cultural settings. [2202-1]
133. Museology. (3). (Same as ART 4380). The 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. [2202-1]
134. Archeological Laboratory and Research Techniques. (3). Coverage of basic archeological laboratory and research techniques, including processing, cataloguing, storage of specimens, and analysis of a small body of archeological data on an individual basis. PREREQUISITE. permission of instructor. [2203-8]
135. Museum Operation. (3). (Same as ART 4382). Basic aspects of museum organization, management, exhibit planning and execution, and maıntenance of collections and records. [1003-1]
136. Complex Societies. (3). Folk society, peasant society, and the pre-industrial state. Community studies. Anthropological studies of social institutions and groupings in industrial settings. [2202-1]
137. Urban Anthropology. (3). Anthropological studies of pre-industrial and industrial cities. Urbanization, movements of social transformation and other processes of adjustment to an urban milieu. Urban slums, ethnic enclaves and housing developments in cross-cultural perspective. Urban kinship and social organization. Urban community development. Urban research techniques. PREREQUISITE: ANTH 1200 or SQCI 1111, or permission of instructor [2214-1]
138. Medical Anthropology. (3). Cross-cultural analysis of bio-behavioral components of infectious, nutritional, genetic, chronic and psychiatric diseases. Individual and cultural reactions to medical care, professionals and health care delivery systems.
[1299-1]
139. 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 foods. Dietary aspects of acculturation and culture change. Methodology in the assessment of nutritional status and nutritional insufficiencies. Exemplary case studies
[0424-1]
140. Primitive Technology. (3). An anthropological survey of the development of technology. Analysis of the origins of primitive techniques, subsistence patterns, arts, crafts, machines, and tracing of their relationship to social organizations. $A$ comparative examination of prehistoric and historic information. [2202-1]
141. Culture and Personality. (3). Comparison of factors involved in the analysis of personality as contrasted to culture; the interaction of these factors; problems of studying personality cross culturally.
[2202-1]
142. Applied Anthropology. (3). Application of anthropological knowledge and techniques to contemporary problems in government, industry, public health, community development, and urbanization.
[2202-1]
143. Directed Individual Readings. (1-4). Intensive guided survey of anthropological and related literature dealing with topics selected by advanced students and accepted by the staff. Compilation, synthesis, and evaluation of the published data; preparation for students considering anthropology as a profession. PREREQUISITE: permission of chairman and the designated staff. [2202-8]
144. Directed Individual Research. (1-3). Intensive guided study of original data, in areas selected by advanced students and accepted by the staff. Collection and/or processing of data in physical anthropology, ethnology, applied and urban anthropology, archeology, and linguistics; description, classification, analysis, and synthesis. Preparation for publication. PREREQUISITE: permission of chairman and the designated staff. [2202-8]
145. Seminar in Anthropology. (3). Problems in contemporary anthropology; may be offered in sections dealing with different topics; field trips and individual assignments. [2202-1]
Graduate courses in Anthropology: For details of the graduate program see The Bulletin of The Graduate School.

## BIOLOGY

PROFESSOR CARL DEE BROWN, Chairman

## 201 B, Life Science Building

Requirements for the major and minor in biology are listed on page 56 . Information concerning preprofessional curricula will be found on page 41. The program for the degree of Bachelor of Science in Medical Technology is outlined on page 55.

## ADVANCED PLACEMENT

Beginning freshmen who have completed an advanced biology course in high school may apply to the chairman of the Department of Biology, during the semester preceding enrollment, for advanced placement.

## E060 BIQLQGY (BIQL)

1001. Introduction to Biology. (3). An introductory survey of biology, with emphasis on the animal kingdom, designed for non-science majors. Credit in this course is not acceptable for the biology major or in related pre-professional curricula. Credit not allowed for both Biology 1001 and 1600. Two lecture, two laboratory hours per week. [0401-1]
1002. Introduction to Biology. (3). A continuation of Biology 1001, with emphasis on the plant kingdom. Credit in this course is not acceptable for the biology major or in the pre-professional curricula. Credit not allowed for both Biology 1002 and 1200. Two lecture, two laboratory hours per week. [0401-1]
1003. General Plant Biology. (4). A survey of the plant kingdom considering distribution, taxonomic relationships, morphology, physiology, and economic importance of selected forms. Three lecture, three laboratory hours per week. [0402-1]
1004. Microbiology. (4). A course designed to meet the requirements of student nurses and majors in the Department of Health, Physical Education, and Recreation. Three lecture, two laboratory hours per week. [0411-1]
1005. General Animal Biology. (4). A survey of the animal kıngdom, considering distribution, taxonomic relationships, morphology, physiology, and economic importance of selected forms. Three lecture, three laboratory hours per week. [0407-1]
1006. Human Anatomy and Physiology. (3). A study of the structure and function of the human organism, designed primarily for majors in the Department of Health, Physical Education, and Recreation. Two lecture, two laboratory hours per week. [0412-1]
1007. Human Anatomy and Physiology. (3). A continuation of Biology 1631, designed primarily for majors in the Department of Health. Physical Education, and Recreation. Two lecture, two laboratory hours per week. PREREQUISITE: BIQL 1631 or the equivalent. [0412-1]
1008. Anatomy and Physiology. (4). A detailed study of the structure and functions of the human organism. Three lecture, two laboratory hours per week. [0412-1]
1009. Anatomy and Physiology. (4). A continuation of Biology 1731. Three lecture, two laboratory hours per week. PREREQUISITE: BIQL 1731 or the equivalent. [0412-1]
1010. Fundamental Concepts of Biology. (3). An expansion of and an elaboration on basic biological concepts introduced in Biology 1200 and Biology 1600. Topics of discussion to include cell structure, cell function, reproduction, genetics, evolution, and ecology. Both unifying and comparative in nature.

Required of all majors in biology. PREREQUISITES:
BIOL 1200 and 1600 or their equivalents and COREQUISITE: CHEM 1112 or the equivalent.
[0401-1]
2001. Elements of Biology. (3). A study of the basio concepts of animal and plant life. (This course, designed for students in The College of Education seeking certification in elementary education, will not satisfy science requirements for degrees in other colleges of the University.) Two lecture, two laboratory hours per week. [0401-1]
2002. Natural History and Bio-Conservation. (3) Emphasis is placed on plants and animals in their environment, the use of field work in teaching
elementary science, and the study of ecologica elementary science, and the study of ecologica principles related to bio-conservation. (This course designed for students in The College of Educatior seeking certification in elementary education, wil not satisfy science requirements for degrees in othei colleges of the University.) Two lecture, two laboratory hours per week. PREREQUISITE: BIOL 2001. [0401-1]

Completion of Biology 1200, 1600 and 2000 shall be required before enrolling in any course numbered 3000 or above, acceptable for a major or minor.
3030. Principles of Animal Physiology. (4). Basic concepts of animal function, including the study a many invertebrate phyla and most classes o vertebrate organisms. Two lecture, four laboratory hours per week. PREREQUISITE: 8 hours of anima biology or the equivalent and CQREQUISITE: CHEN 3311. [0410-1]
3050. General Ecology. (4). The study of plant anc animal communities in relation to their environment Two lecture, four laboratory hours per week. [0420-1 3070. Genetics. (4). A study of the principles o heredity, including laboratory experiments Drosophila breeding. Three lecture, three laborator) hours per week. [0422-1]
3071. Human Genetics. (3). A study of genetil principles as they apply to man, including pedigre analysis, genetic counseling, genetic engineering and eugenics. Three lecture hours per week. PRERE QUISITES: BIOL 1200, 1600, and 2000, or permis sion of the instructor. [0422-1]
3100. History of Biology. (3). The development o the science of biology, considering the work of outstanding biologists and the influence of thei contributions. PREREQUISITE 16 semester hours in biology, or permission of the instructor. [0401-1]
3170. Heredity. (3). The principles of heredity wit' applications to human problems, designed for non science majors and recommended for students wh desire a better understanding of heredity an eugenics. Not acceptable as credit toward a biolog major or minor. [0422-1]
3220. General Plant Anatomy. (4). A comparativ study of the development and structure of roots stems, and leaves in flowering plants. Two lecturt four laboratory hours per week. [0412-1]
3221. Plant Morphology. (4). Comparative studie of general structure of lower plants, through th bryophytes. Two lecture, four laboratory hours pe week. [0412-1]
3222. Plant Morphology. (4). A continuation © Biology 3221, considering the vascular plants. Tw lecture, four laboratory hours per week. [0412-1] 3240. Field Botany. (4). Qbservation, classificatio! and mounting of representative specimens of flowe. ing plants in the Memphis area. Two lecture, fot laboratory hours per week. [0402-1]
3400. The Relation of Microorganisms to Man. (3 The nature and activities of the microorganisms a they affect the welfare of man; some time is devote to the pathogens-etiology and transmission diseases, immunity, and other factors bearing upc the health of the individual and the communit Designed for non-science majors. Credit not allowe for both 3400 and 3500 . Not acceptable as crec

## ward a Bıology major or minor. [0411-1]

440. Pathophysiology. (3). A study of the effects of thogenic organism upon the human body and the mormalities in the physiological processes ocarring during disease (Intended primarily for ursing students.) [0408-1]
441. General Microbiology. (5). A general course aling with the fundamentals of bacteriology. Three cture, four laboratory hours per week. [0411-1]
442. Applied Microbiology. (4). An introduction to e microbiology of water, soil, aır, food sewage, dustrial processes, and pathogens. Two lecture, ur laboratory hours per week. PREREOUISITE: BIOL 00 or equivalent. [0411-1]
443. Ornithology. (4). A study of the habitats, igrations, nesting habits, and classification of birds. eld trips for recognition of the more common local ds will be organized as needed. Two lecture, four boratory hours per week. [0499-1]
444. Vertebrate Embryology. (4). The developent of selected vertebrate embryos from the fertilegg cell. Two lecture, four laboratory hours per eek. [0427-1]
445. Comparative Anatomy of Vertebrates. (5). e origin, development, structure, and functions of e organs and systems of selected forms of verteates. Two lecture, six laboratory hours per week.
[0412-1]
446. Vertebrate Zoology. (4). A study of the life stories, adaptations, ecology, distribution, behav: and classification of vertebrates. Two lecture, ir laboratory hours per week. [0407-1]
447. Human Physiology. (4). A study of the normal nctions of the human body. Three lecture, two oratory hours per week. [0410-1]
448. Parasitology. (4). Distribution, morphology, history, economic importance, and control of me of the parasites of man and domestic animals. otozoa through helminths Two lecture, four oratory hours per week. [0408-1]
449. General Entomology. (4). An introduction to insects with emphasis on morphology, physiol$y$, development, behavior, and ecology. Three ture, three laboratory hours per week. [0421-1]
450. Systematic Entomology. (4). Classification the insects, the interpretation and use of keys, and preparation of a representative collection. tended field trips to be arranged Two lecture, four oratory hours per week. [0421-1]
451. Medical Entomology. (4). Distribution, morology, life history, medical importance, and control some of the insects and other arthropods which ve as vectors for disease-producing organisms. o lecture, four laboratory hours per week. [0421-1]
452. Pest Control. (4). Recognition, life history, bits, and control of insect pests attacking stored in, wood, fabrics, food products and animals. Also luded will be studies of some non-insect pests, ch as noxious birds, rodents, and snakes. Two ture, four laboratory hours per week. PREREIISITE: permission of the instructor. [0421-1]
453. Problems in Biology. (2 to 4). Individual blems pursued by qualified students under jervision of a member of the biology faculty, signed to develop interest and proficiency in logical research. [0401-8]
454. General Toxicology. (4). An introductory dy of the harmful actions of chemicals on logical mechanisms. Three lecture, two laboratory urs per week. PREREQUISITE: CHEM 3312, or isent of instructor. [0426-1]
455. Bioenergetics. (4). An analysis of the ersity and unity of energetics in living systems. phasis is on the evolutionary relationships of cific cellular components to different modes of energetics. PREREQUISITE: CHEM 3312.
[0415-1]
456. Field Technique in Ecology. (4). A field hnique course of applied ecology covering prac-
tical training in forest, field, aquatic, and atmospheric samplıng and analysis. Extended field trıps will be arranged. Two lecture, four laboratory hours per week. PREREOUISITE: consent of instructor
[0420-1]
457. Limnology. (4). Physical and chemical attributes of lakes, ponds, and streams; organisms of fresh water; problems of production; practical training in limnological methods and identification of organisms. Two lecture, four laboratory hours per week. PREREOUISITE: one year of chemistry.
[0499-1]
458. Radiation Biology. (3). The origin and characterıstics of ionizing radiations with a detalled dis cussion of radiation effects upon life processes from the molecular to the ecosystem level. Two lecture, two laboratory hours per week. PREREOUISITES: CHEM 3311 or 3312; BIOL 3070. [0423-1]
459. Organic Development. (3). The consideration of theoretical and scientific evidences concerning the origin, development, and establishment of the major groups of living and extinct animals and plants Recommended for biology majors and general students as well. [0401-1]
41 30. Cell and Molecular Biology (4). An introduction to the principles of molecular biology including discussions of ultrastructure, intracellular metabolism, gene structure and function, and cell differentiation. Two lecture, four laboratory hours per week PREREOUISITES. BIOL 3070 and CHEM 3312.
[0416-1]
460. Histological Techniques. (4). A study of the methods of preparing plant and animal materials for microscopic study; theories of staining and preparation of permanent mounts. One lecture, six laboratory hours per week. PREREOUISITE: consent of instructor [0413-1]
461. Mycology. (4). A study of the basic life cycles, morphology and classification of fungi. Consideration of the interaction of fungal organisms in the environment. Two lecture, four laboratory hours per week. PREREOUISITE: consent of instructor [0499-1]
462. Phycology. (4). A systematıc and comparative study of the morphology and reproduction of algae with emphasis on the fresh water forms. Selected topics on algal genetics, algal physiology, and pollution will be included. Two lecture, four laboratory hours per week. PREREOUISITE: consent of instructor [0499-1]
463. Plant Physiology. (4). A study of the princıples of physiology and their application to the lower plant groups, exclusive of the bacteria and related forms. Two lecture, four laboratory hours per week. [0406-1]
464. Plant Physiology. (4). Principles of physiology and their application to the living organism, with emphasis on higher plants. Two lecture, four laboratory hours per week. [0406-1]
465. Plant Taxonomy. (4). Principles of plant taxonomy, with special attention given to classification of selected vascular plant families. Lectures. laboratory hours, and tield trips. PREREQUISITE: permission of the instructor [0499-1]
466. Woody Plants of the Mid-South. (3). A study of the identification and classification of the trees, shrubs and woody vines of Tennessee and adjacent Arkansas, western Kentucky, southeastern Missouri and northern Mississippi with emphasis on both the natıve and cultivated woody species. Identification is primarily of plants in the summer condition, but work is also done to enable the student to identify woody plants in winter One lecture, two laboratory hours per week. PREREOUISITES: BIOL 1200, 1600 or permission of the instructor. [0402-1]
467. Ecology of Forests and Arable Lands. (4). Developmental and structural analysis of forest types and arable lands. Regional silviculture in the United States. Autecology of important species. Field trips to be arranged. Three lecture, two laboratory hours per week. PREREQUISITE: BIOL 3050, or permission of

## the instructor [0420-1]

4400. Advanced Microbiology. (4). Advanced theory and principles of microbiology with emphasis on morphology and bacterial metabolism. Two lecture, four laboratory hours per week. PREREOUISITES: BIOL 3500 and one year of inorganic chemistry, with organic chemistry desirable.
[0411-1]
4401. Pathogenic Microbiology. (4). A survey primarily of the pathogenic bacteria, the diseases they cause and methods of diagnosis with an introduction to immunological principles and mm munity. Considerable attention is given to laboratory methods used for identification of pathogenic bacteria Two lecture, four laboratory hours per week. PREREQUISITE: BIOL 3500, with organic chemistry desirable [0411-1]
4402. Immunology. (4). A study of in vitro and in vivo reactions of antıgens and antibodies, hypersensitivities, blood groups and vaccines. Two lecture four laboratory hours per week. PREREOUISITES: BIOL 3500 and CHEM 3311. [0408-1]
4403. Sanitary Bacteriology. (4). A study of microorganisms in relation to water and sewage, disinfection and disinfectants. Two lecture, four laboratory hours per week. PREREOUISITE. BIOL 3500 or consent of the instructor [0403-1]
4404. Molecular Genetics. (4). The structure, functions and replication of DNA, recombination, the colinearity of DNA with the genetic map, mutagenesis, gene transfer, plasmids, the code, protein synthesis, suppression, regulation of gene expression, and genetic engineering are discussed in the course. The course is a basic course for students without formal traınıng in molecular genetıcs. Two lecture and four laboratory hours per week. PREREOUISITE: organic chemistry or consent of instructor [0426-1]
4405. Microbiology of Foods. (4). Microorganısms in natural and processed foods; origins, nature, and effects on foods; enumeration, and the relation to health. Two lecture, four laboratory hours per week PREREOUISITE: BIOL 3500 or consent of the instructor [0411-1]
4406. Ethology. (4). A study of animal behavior with emphasis on recent developments in the field, including history of ethology, learning, releasers, communication, orientation, instınct, biological clocks, and evolution of behavior. Two lecture, four laboratory hours per week. [0499-1]
4407. Vertebrate Histology. (4). Microscopıc study of normal tissues and organs of the vertebrate body Two lecture, four laboratory hours per week. PREREOUISITE: BIOL 3620 or 3730. [0413-1]
4408. General Endocrinology. (3). Anatomy and physıology of the organs of internal secretion, role of hormones in metabolism and development. PEREOUISITE: BIOL 3730. [0410-1]
4409. Field Zoology. (4). Field study of the identification, life history, and habitat of the anımals of this locality; birds and insects are omitted. Two lecture, four laboratory hours per week. [0407-1]
4410. Ichthyology. (4). Collection, preservation, identification, life histories, management, and economic importance of fishes. Two lecture, four laboratory hours per week. [0499-1]
4411. Field Techniques in Vertebrate Zoology. (46 ). Techniques in the field study of vertebrates. This course is primarily designed for extended field studies outside the local area [0407-9]
4412. Vertebrate Neurology. (4). A study of the nervous system of selected vertebrates. Three lecture, two laboratory hours per week. PRERE. OUISITE: permission of instructor. [0425-1]
4413. Mammalogy. (4). Classificatıon, distribution, Iffe histories, economic importance, techniques of field study, methods of collection and preservation of mammals. Two lecture, four laboratory hours per week. PREREOUISITE: BIOL 3620. [0499-1]
4414. Herpetology. (4). Classification, distribution, life histories, techniques of collection and preservation, natural liabitats of North American reptiles and amphibians. Two lecture, four laboratory hours per week. [0499-1]
4415. Wildlife Management. (4). Distribution, identıfication, populatıon analysıs, game mapping techniques, and management of wildlıfe. Two lecture, four laboratory hours per week. PRERE QUISITES BIOL 3050 and one of the following BIOL 3600, 4640, 4644, 4740, 4744. [0499-1]
4416. Protozoology. (4). A survey of the free living and parasitic protozoa, with consideration given to structure, function, taxonomy, habitat, and life history. Two lecture, four laboratory hours per week. [0499-1]
4417. Invertebrate Zoology (4). The invertebrate animals, exclusive of the insects, with special attention given to phylogeny, organology, and taxonomy. Two lecture, four laboratory hours per week. [0499-1]
4418. Field Technique in Entomology. (4). A course devoted to the study of field techniques used in aquatic entomology and larval taxonomy. Two lecture, four laboratory hours per week. PREREQUISITE: permission of instructor. [0421-1]
4419. Insect Morphology. (4). A study of the form and structure of insects, considering both external and internal morphology. Two lecture, four laboratory hours per week. [0421-1]
4420. Insect Physiology. (4). A study of physiology as applied to the life processes of insects. Two lecture, four laboratory hours per week. PREREQUISITE: BIOL 2000, or the equivalent. [0410-1]
The following courses are taught only at the Gulf Coast Research Lab, Ocean Springs, Mississippi. Memphis State University residence credit is given through affiliation with the laboratory.
4421. Marine Aquaculture. (6). A lecture, laboratory, and field course designed to introduce aquatic and marine biology students to the history, principles, problems, and procedures relating to the culture of commercially important crustaceans, fish, and mollusks along the Gulf coast. PREREQUISITES general zoology or invertebrate and vertebrate zoology or permission of the instructor [0418-1]
4422. Marine Ecology. (5). A consideration of the relationship of marine organisms to their environment; includes the effects of temperature, salinity light nutrient concentration, currents and food on the abundance and distribution of marine organisms PREREQUISITES: general botany, invertebrate zoology, analytical chemistry. [0418-1]
4423. Salt Marsh Ecology. (4). A study with emphasis on the botanical aspects of local marshes; includes plant identification, composition, structure, distribution and development of coastal marshes PREREQUISITES: ten hours of biology including introductory botany. [0418-1]
4424. Marine Botany. (4). A survey based upon local examples of the principal groups of marine algae and maritime flowering plants, treating structure, reproduction, distribution, identification and ecology PREREQUISITES: ten hours of biology, including introductory botany. [0418-1]
4425. Marine Microbiology. (5). A general course designed to introduce the student to the role of microorganisms in the overall ecology of the oceans and estuaries. Lecture and laboratory work includes sampling procedures, taxonomy of marine bacteria, mineralization, microbial fouling, pollution, and diseases of marine animals. PREREQSISITES: general microbiology and consent of instructor
[0418-1]
4426. Marine Vertebrate Zoology and Ichthyology. (6). A general study of the marıne Chordata, including lower groups and the mammals and birds, with most emphasis on the fishes. PREREQUISITES sixteen semester hours of zoology including comparative anatomy and junior standing [0418-1]
4427. Marine Invertebrate Zoology. (6). A study of the marine invertebrates, especially those of the Mississippı Sound region. Emphasis is placed on the structure, classification, phylogenetic relationships, and functional processes. PREREQUISITES: sixteen semester hours of zoology. [0418-1]
4428. Parasites of Marine Animals. (6). A study of the parasites of marine animals with emphasis on morphology, taxonomy, life histories and host parasite relationships. Lecture, laboratory and field work are included. PREREQUISITES: general parasitology or consent of the instructor. [0418-1]
4429. Marine Fisheries Management. (4). A general course in fisheries management designed to acquaint students with the philosophy, objectives, problems and principles involved in management decisions Lecturers will include specialists in biology, fisheries statistics, sanitation and marine law PREREQUISITES: consent of instructor and four semester hours of graduate or undergraduate credit
[0418-1]
Graduate courses in Biology: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.

## CHEMISTRY

PROFESSOR JAMES C. CARTER, Chairman

## Room 210. J. M. Smith Hall

The Department of Chemistry offers courses leading to the B.S. degree with a major in either chemistry or physical science. Details of these programs are listed on p. 56. The Department also offers a program culminating in the professional degree of Bachelor of Science in Chemistry, for which details are outlined on p. 55. This program is designed to meet the requirements of the Committee on Professional Training of the American Chemical Society, and is undertaken primarily by students who desire to go directly to positions in chemical industry, or to enroll for postgraduate study in chemistry. Information concerning pre-professional curricula is found on $p$. 41 . The program leading to the degree of Bachelor of Science in Medical Technology is outlined on p. 55.

## SEQUENCE OF COURSES

Students who present credit for at least two years of high school mathematics (including algebra), or who have an ACT mathematics score of 22 or better, should enroll in Chemistry 1111 if they plan to take more than one year of college chemistry, or plan to major in either a natural science or in civil, mechanical, or electrical engineering Chemistry 1100 is a one-semester course designed for those students of limited preparation in mathematics whose curriculum calls for the Chemistry 1111-1112 sequence. Chemistry 1051-1052 is a two-semester sequence designed for students interested in the science of chemistry and its impact on modern society. This sequence is not credited toward a major in chemistry or physics but contributes to fulfilling the University science requirements of other majors. It is normally undertaken by those who require only one year of chemistry in satisfying their degree requirement. Credit may not be received for both Chemistry 1100 and Chemistry 1111 simultaneously. Physical Science 1031-1032 is an introductory sequence requiring no previous science experience. These courses emphasize fundamental princıples and concepts, and are designed for non-science majors interested in a study of several areas of physical science.

## ADVANCED PLACEMENT

Beginning students who have had previous high school training in chemistry are invited to apply for advanced placement.

## E070 CHEMISTRY (CHEM)

1000. Chemistry of Life Processes. (4). An introduction to chemistry as related to the understanding of life processes. The implications of topics from
general and organic chemistry, as well biochemistry, are examined. Three lecture, th laboratory hours per week. This course will not credited toward a major in chemistry, physic physical science, or engineering, nor does it satis the general education science requirement. [5208
1001. College Chemistry. (4). A study of fundamental laws of chemistry and the impact chemistry on modern society. Three lecture, iv laboratory hours per week. This course will not 1 credited toward a major in chemistry or physics.
[1905-
1002. College Chemistry. (4). A continuation Chemistry 1051 with emphasis on elementa organic and biochemistry. Three lecture, $t$ laboratory hours per week. This course will not , credited toward a major in chemistry or physic PREREQUISITE: CHEM 1051.[1905-1]
1003. Introduction to Chemistry. (3). Designed f students whose curriculum requires Chemist 1111, but who feel that their background is inad quate. Emphasis is placed on scientific calculatio and the properties of matter. Three lecture hours p week. This course will not be credited toward a maj in chemistry, physics, physical science, or engine ing, nor does it satisfy any part of the scien requirement for any degree. COREQUISITE: MA 1211 or 1212 is recommended. [1905-1]
1004. Principles of Chemistry. (4). A basic cour in chemistry designed for students who are major in one of the physical sciences, biology, mathemati or engineering, or who are following a pl professional program requiring additional chemist Three lecture, three laboratory hours per wet PREREQUISITE: two units of high school math matics including algebra, or an ACT score of 22 better on the mathematics section, or CHEM 11 C COREQUISITE: MATH 1211, 1212, or 1321. [1905
1005. Principles of Chemistry. (4). A continuati of Chemistry 1111. Three lecture, three laborato hours per week. PREREQUISITE: CHEM 1111.
[1905
1006. Chemical Equilibrium and Electrochemist (2). A study of acid-base, solubility, complexat equilibria including activity effects, electrochemist and electroanalytical chemistry. Emphasis is plat upon modern methods of problem solving. $T$ lecture hours per week. COREQUISITE: CHEM 34
[1909
1007. General Organic Chemistry Laboratory. 1 Designed to accompany Chemistry 3311 Empha is placed on laboratory techniques as applied synthesis and class reactions. Three laboratory hol per week. PREREQUISITE: CHEM 1112. COF QUISITE: CHEM 3311.[1907-1]
1008. General Organic Chemistry Laboratory. 1 A continuation of Chemistry 3301, with emphasis the correlation of chemical behavior with structl Three laboratory hours per week. PREREQUISI CHEM 3311 and 3301. COREQUISITE OR PREI QUISITE: CHEM 3312. [1907-1]
1009. General Organic Chemistry. (3). systematic study of the preparations and propertie organic compounds, including interpretations bas on modern theories of organic chemistry. Partict emphasis is placed on aliphatic and aromi hydrocarbons, their halogen derivatives, alcohols. Three lecture hours per week. PREI QUISITE: CHEM 1112. [1907-1]
1010. General Organic Chemistry. (3). A contin tion of Chemistry 3311, with emphasis on the $m$ t important functional derivatives of aliphatic il aromatic hydrocarbons. PREREQUISITE: CH 3311. [1907-1]
1011. Chemical Analysis. (2). A treatment of theory and practice of modern chemical analy Topics include acid-base, redox, and complex equilibria, separation methods, absorptiome flame spectroscopy, and electroanalytical meths, Two lecture hours per week. PREREQUISITE: CH I 3311.[1909-1]
1012. Elementary Physical Chemistry. (3). An abbreviated course in physical chemistry. Topics include elementary thermodynamics, phase transitions, solution chemistry, electrochemistry, kinetics, colloidal and surface chemistry, and molecular polarity. (Credit in this course is superseded by credit in Chemistry 3411). Three lecture hours per week. PREREQUISITES: CHEM 3311 and PHYS 2112 or 2512. [1908-1]
1013. Chemical Analysis Laboratory. (2). Designed to accompany Chemistry 3400. Application of the techniques of quantitative analysis in areas described in Chemistry 3400. Six laboratory hours per week. CQREQUISITE: CHEM 3400. [1909-1]
1014. Elementary Physical Chemistry Laboratory. (1). An introduction to measurement of physical quantities, including equilibrium constants, heats of reaction, molecular weight, viscosities, and reaction rate constants. Three laboratory hours per week. CQREQUISITE: CHEM 3401. [1908-1]
1015. 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. PREREQUISITE: PHYS 2112 or 2512; MATH 2321 [1908-1]
1016. Physical Chemistry. (3). A continuation of Chemistry 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]
1017. Identification of Compounds. (1-3). Identification and separation of compounds, with emphasis on the various forms of spectroscopy and gas chromatography. Designed as a three-credit unit for students in the professional degree program, the course can be taken for reduced credit with the consent of the department chairman by those transferring into this degree program. One lecture, six laboratory hours per week. PREREQUISITE: CHEM 3301. CQREQUISITE: CHEM 3312. [1905-1]
1018. Physical Measurements. (1-3). An introduction to quantutative measurement and data handling leading to intensive properties such as standard electrode potential, equilibrium constant, molecular weight, paramagnetic moment, etc. Designed as a three-credit unit for students in the professional degree program, the course can be taken for reduced credit with the consent of the department charman by those transferring into this degree program. Nine laboratory hours per week. CQREQUISITES. CHEM 3411,3200 . [1908-1]
1019. Synthesis, Characterizations, and Dynamics. (1-3). A laboratory for advanced students featuring a limited number of in-depth experiments involving product synthesis and identification, methods of reaction rate measurements, trace analysis, and digital electronics. Designed as a threecredit unit for students in the professional degree program, the course can be taken for reduced credit with the consent of the department chairman by those transferring into this degree program. Nine laboratory hours per week. CQREQUISITES: CHEM 3412, 4220. [1909-1]
1020. Environmental Chemistry. (3). An examına tion of the chemical phenomena occuring in the soil, the atmospheric and the aquatic environments Emphasis will be placed on the interaction of man and his surroundings. This course may not be counted toward a major in chemistry. Three lecture hours per week. PREREQUISITE: junior standing and two semesters of natural science [1905-1]
1021. Inorganic Chemistry. (3). (Formerly Chemistry 4210). A survey of theoretıcal and applied inorganic chemistry. Stress is placed on the relationship of structure and bonding to the properties of elements and compounds. Topics include 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 [1906-1]
1022. Special Topics in Inorganic Chemistry. (16). Selected topics of current interest to undergraduates pursuing the B.S. degree. May be repeated for a maximum of 6 semester hours credit. PREREQUISITE: CHEM 4111 . [1906-8]
1023. 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]
1024. Special Topics in Analytical Chemistry. 11 3). Selected topics of current interest to undergraduates pursuing the B.S. degree. May be repeated for a maximum of 6 semester hours credit. PREREQUISITE: CHEM 4220. [1909-8]
1025. Special Topics in Organic Chemistry. (1-3). Selected topics of current interest to undergraduates pursuing the B.S degree. May be repeated for a maximum of 6 semester hours credit. PREREQUISITE: CHEM 3412. [1907-8]
1026. Special Topics in Physical Chemistry. (1-3). Selected topics of current interest to undergraduates pursuing the B.S. degree. May be repeated for a maximum of 6 semester hours credit. PREREQUISITE: CHEM 3412. [1908-8]
1027. Biochemistry Laboratory. (1). Biochemical laboratory techniques with special emphasis on fractionating biological samples and measuring metabolic activity. Three laboratory hours per week. PREREQUISITE: CHEM 4511. [0414-1]
1028. Biochemistry. (4). Chemistry of amino acids and proteins are 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, three laboratory hours per week. PREREQUISITE: CHEM 3312. [0414-1]
1029. Biochemistry. (3). A continuation of Chemistry 4511. Metabolism of carbohydrates, amino acids and nucleotides. Bıochemistry of DNA and RNA, including their relationship to the biosynthesis of proteins. Metabolic control. Three lecture hours per week. PREREQUISITE: CHEM 4511.
[0414-1]
1030. Special Topics in Biochemistry. (1-3). Selected topics of current interest to undergraduates pursuing the BS degree May be repeated for a maximum of 6 semester hours credit. PREREQUISITE: CHEM 3412. [0414-8]
1031. Chemical Literature. (1). Use of the chemical literature and the writing of technical reports. One lecture hour per week. PREREQUISITE: permission of instructor. [1905-1]
1032. Seminar. (1). Special projects, reports and investigation of current chemical literature. One lecture hour per week. PREREQUISITE: CHEM 4900.
[1905-1]
1033. Chemical Research. (1). (See description under Chemistry 4993.) [1905-8]
1034. Chemical Research. (2). (See description under Chemistry 4993.) [1905-8]
1035. Chemical Research. (3). An introduction to basic research. The student collaborates with a staff member on a problem of mutual interest selected from the fields of analytical, inorganic, organic, and physical chemistry, and biochemistry. The student gains experience in effective laboratory techniques, critical experıment design, and scientific reporting. To receive credit toward a major in chemistry the student must complete three semester hours in these research courses. Three to nine laboratory hours per week. PREREQUISITE: CHEM 4220. [1905-8]

## PHYSICAL SCIENCE (PSCI)

1031. Physical Science. (3). An introductory course, with emphasis on the fundamental principles and concepts of physical science. Two lecture, two laboratory hours per week. [1901-1]
1032. Physical Science. (3). A continuation of Physical Science 1031. Two lecture, two laboratory hours per week. PREREQUISITE PSCI 1031 or its equivalent. [1901-1]
1033. Glass Manipulation. (2). A laboratory course in the fundamentals of glass manipulation and the 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 the graduate program, see The Bulletın of the Graduate School.

## CRIMINALJUSTICE PROFESSOR JOSEPH A. CANALE, Chairman

## Room 405, Mitchell Hall

The Department of Criminal Justice offers a major in Criminal Justice in three concentration areas: Police, Corrections and General Criminal Justice. See p. 56 Five major criminal justice areas are indicated by the second digit of the course number, i.e. General $=1$; Police $=2 ;$ Courts $=3 ;$ Corrections $=4 ;$ Law $=5$.

## E250 CRIMINAL JUSTICE (CJUS)

1100. Introduction to Criminal Justice. (3). An introduction to the American crimınal justice system in its three dimensions: police, courts, and corrections, tracing its development from ancient and early English beginnings to the present time. [2105-1]
1101. Techniques of Criminal Investigation. (3). A description, analysis, and demonstration of historical and contemporary techniques and procedures utilized in the identification, apprehension, and presentation to Court of the criminal. [2105-1]
1102. Criminalistics. (3). Study of scientific procedures employed in crimınal investigation, principally with respect to the location, development and use of physical evidence in criminal identification, including latent fingerprints, casting, document examination, and ballistics. PREREQUISITE: CJUS 2221. [2105-1]
1103. The Administration of Criminal Justice. (3). A study of criminal justice procedures for detection of crime and arrest of suspects through prosecution, adjudication and sentencing and imprisonment, to release and revocation. Policies and practices in criminal justice process. [2105-1]
1104. Research and Statistics in Criminal Justice. (3). Statistical and non-statistical approaches employed in contemporary criminal justice; review and analysis of current findings [2105-1]
1105. Socio-Medical Aspects of Criminal Justice. (3). The cultural aspects of crime, suicide, sexual deviancy with emphasis on the medical role of prevention, detection and treatment. An analysis of the role of the physician as an expert witness which will provide an insight into the contribution of the medical profession to crımınal justice. [2105-1]
1106. Drug Addiction and Alcoholism. (3). Cultural and medical aspects of the use of alcohol and various other drugs; consideration of the roles of law enforcement and corrections in these areas. [2105-1] 3226. Police Administration. (3). A comparative analysis of the problems, procedures, organization, and functions of effective police organization. NOTE: Students who have received credit for ICJ 3526 will not be allowed credit for CJUS 3226. [2105-1]
1107. Court Administration. (3). A study of court operations including assignments and specialization of judges, document preparation and calendaring of cases, consideration of problems involving court
personnel, funds and other property in the court's custody and maintaining a record of prisoners awaiting trial in criminal cases. [2105-1]
1108. American Penology. (3). Analysis of penal systems and reformatories in terms of organization, procedures, programs, and effectiveness. PREREQUISITE: CJUS 3521. [2105-1]
1109. Corrections Administration. (3). Principles of organization and management in corrections administration. Concepts of organizatıonal behavior applied to prisons and other detention facilities and special programs in institutional management. PREREQUISITE: permission of instructor [2105-1]
1110. Law and Society. (3). The course will entail an examination of law as a system of control and as a mechanism for the resolution of conflict. The relationship of law to political, economic and social systems will be critically analyzed and the development of the legal profession will be studied. [2105-1]
1111. Substantive Criminal Law. (3). Study of substantive criminal law, including common law sources and basic principles, types of offenses. responsibility, justıfication and excuse and related areas. [2105-1]
1112. Criminal Procedure I. (3). General view of the criminal justice system as to application of principles of the U.S. Constitution, Bill of Rights, and the Fourteenth Amendment. Study of "due process of law" in federal and state prosecutions and application of the Exclusionary Rule of Evidence. NOTE: Students who have received credit for ICJ 4526 will not be allowed credit for CJUS 3521. [2105-1]
3522.Criminal Procedure II. (3). A study of the application of various consitutional principles to investigative and prosecutive procedures of the criminal justice process, including arrest, search and seizure, interrogation, identification procedures and trial and post-trial proceedings. PREREOUISITE CJUS 3521. [2105-1]
1113. Individual Directed Study in Criminal Justice. (1-4). Individual directed reading and research in special areas of interest in the field of criminal justice. PREREQUISITE: permission of director [2105-8]
1114. Crime and Criminal Typologies. (3). The study of the classification of crime and the typical elements involved in each type of crime. The study of the classification of criminal offenders and the salient career variables associated with each type of offender relative to background, crime, and career prognosis. [2105-1]
1115. Internship in Criminal Justice. (1-4). Provides students with opportunity to gain experience in actual Criminal Justice settings. PREREQUISITE Criminal Justice major and senior standing. [2105-8]
1116. Seminar in Criminal Justice. (3). Seminar discussion of current crımınal justice issues and problems, with review of professional literature in particular areas of criminal justice. May be repeated for a maximum of 6 hours credit. PREREOUISITE senior standing and invitation of criminal justice faculty. [2105-1]
1117. Police Planning. (3). An advanced study and analysis of plans relating to procedures, tactics. personnel, equipment, buildings, budget, and extradepartmental activities which the police administration encounters. [2105-1]
1118. Public Relations and the Police. (3). The role of law enforcement personnel and administrators in police-community relations; the forms and possible approaches for improving communications with the public; the role of the police officer in the improvement of the public image. [2105-1]
1119. Police Operational Intelligence. (3). The collection, analysis, storage and retrieval of confidential and classified information. The techniques employed to gain information from informants and infiltrators. The techniques of detectıng subversive operatıons and espionage activity directed at under-
mining national security. [2105-1]
1120. Organized Crime. (3). The nature, structure, characteristics, and investigation of syndicated crime; its impact on social and economic conditions in this country. [2105-1]
1121. Probation, Parole and Pardon. (3). Theories and practices of probation, parole and pardon Administrative organization, feasibility and effectiveness of treatment of individuals released to the community. Study of pre-release, pre-hearing and pre-sentencing reports. PREREQUISITE: CJUS 3521
[2105-1]
1122. The Prison Society. (3). The prison's social structure and its relationship to the official world that contains it. Leadership, internal law, internal commerce, subgroups and homosexuality are discussed as are value changes, both transitional and permanent. A vocabulary in argot of the prisons is included.
[2105-1]
1123. Principles of Evidence and Proof. (3). Consideration of rules of evidence and matters of proof affecting criminal investigation in investıgatory and prosecutive stages of criminal justice. Examination from socio-legal aspect of basic rules of evidence, including hearsay rules, impeachment, materiality and relevancy, privilege, eyewitness identification and other. [2105-1]
1124. Civil Rights in the Criminal Justice Process. (3). Study of constitutional provisions, statutes and court decisions relating to civil rights as they apply to the various participants in the criminal justice process. PREREQUISITE: CJUS 3521. [2105-1]
1125. Constitutional Rights of Prisoners. (3). Study of the legal status of persons during preconviction and post-conviction confinement, including factors involving discipline, legal services, communication, medical aid, and related matters, with further consideration of civil and criminal liability of prison officials. PREREQUISITE: CJUS 3521
[2105-1]
1126. The Juvenile in the Criminal Justice Process. (3). A study of legal procedures in the various aspects of the juvenile process, including state and federal statute law, local methods and current constitutional procedural modifications. PREREQUISITE: CJUS 3521. [2105-1]

## ENGLISH <br> PROFESSOR WILLIAM OSBORNE, Chairman

## Room 467, Patterson Hall

Requirements for the major and minor in English are listed on page 56. 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. (English majors are required to take ENGL 2101 and 2102. See p. 57 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. English 1101 and 1102 must be taken in sequence; no credit will be allowed for English 1102 until 1101 has been completed successfully.
English Honors Program. Freshman students with high ACT scores are issued invitations to participate in the honors program, which is open to all qualified students during the freshman and sophomore years. During the junior and senior years, it is restricted to English majors; students are eligible to apply for admission to the program if they have a grade point average of 3.25 in their overall studies and in English. Honor students take special courses during the junior and senior years and write a senior research paper. At commencement they are awarded the special distinction "with honors in English." Details of the program are available at the English Department office.

## E080 ENGLISH (ENGL)

101. English as a Second Language. (1). Introduc tion to English. Concentration on aural-oral skills with introduction to grammar and sentence struc ture. Two weekly audio-lingual laboratory session required. This course is open to non-native speaker of English only. Admission by placement only.
[1508-1 0102. English as a Second Language. (1-2)
Intermediate Reading and Composition. Selecter readings, a review of grammar, and introduction t. the construction of paragraphs. Audio-lingua laboratory optional. This course is open to non-nativ speakers of English only. Admission by placemen only. [1508-1]
102. English as a Second Language. (1-3) Advanced Composition. Advanced readings, con struction of essays, and study of mechanical writin! skills. Audio-lingual laboratory optional. This cours is open to non-native speakers of English only
[1508-1
NOTE: The accumulation of three credit hours fron the above courses and successful completion o 0103 will be considered the equivalent of ENGU 1101. Not more than 3 hours credit may bi accumulated in 0101, 0102, 0103.
103. English Composition. (3). Training in the writing of English sentences, paragraphs, and longe compositions related to the reading of essays an short fiction. [1501-1]
104. English Composition and Analysis. (3) Further training in English composition related to al introductory study of poetry, drama, and the nove PREREQUISITES: ENGL 1101 or equivalents.
105. English Literature. (3). Selected readings it English literature from the beginning through th eighteenth century, with attention to the develop ment of literary forms and to the cultural context Composition and critical thinking beyond level expected of freshmen. PREREQUISITES: ENGL 110 and 1102, or their equivalents. [1502-1]
106. English Literature. (3). Selected readings i: English literature from the Romantic period to the present, with attention to the development of literar forms and to the cultural context. Composition ant critical thinking beyond levels expected of freshmer PREREQUISITES: ENGL 1101 and 1102, or thei equivalents. [1502-1]
107. Modern European Fiction. (3). Selecte readings in British and Continental fiction of th nineteenth and twentieth centuries, with attention $t$ the development of fictional forms and to the makin of the modern European intellectual and literar tradition. Composition and critical thinking beyon levels expected of freshmen. PREREQUISITES: ENG 1101 and 1102, or their equivalents. [1502-1]
108. Poetry and Drama. (3). Selected readings c poems and plays, with attention to the developmer of genres. Composition and critical thinking beyon levels expected of freshmen. PREREOUISITES: ENG 1101 and 1102, or their equivalents. [1502-1]
109. American Fiction. (3). Selected readings i American fiction of the nineteenth and twentiet centuries, with consideration of the characteristi themes and techniques of both the American nove and the American short story. Composition an critical thinking beyond levels expected of freshmer PREREQUISITES: ENGL 1101 and 1102 , or the equivalents. [1502-1]
110. Contemporary Literature. (3). Selecte readings in the poetry, drama, and fiction of Americe Britain, and Europe, written since World War I Special attention will be given to the development c literary modes and to the cultural context. Compos tion and critical thinking beyond levels expected c freshmen. PREREQUISITES: ENGL 1101 and 110: or their equivalents. [1502-1]
111. Special Topics in Literature. (3). Selecte readings in literature, with attention to the develor ment of themes and techniques. Composition an
zritical thinking beyond levels expected of freshmen VQTE: This course is an elective, and will not fulfill any specific English requirement. PREREQUISITES: ENGL 1101 and 1102, or their equivalents [1502-1] 2601. Introduction to Creative Writing. (3). A sophomore-level course designed to introduce students to the writing of fiction and poetry. This course is an elective, and will not fulfill any specific English requirement. PREREQUISITES Grade of C or better in ENGL 1101 or 1102 , and the permission of the department registrar. [1507-1]
112. Intermediate Composition. (3). The study and practice of writing essays and reports at levels beyond freshman English. The course will focus on the construction of clear, logical well made expositions. NOTE: This course is an elective, and will not fulfill any specific English requirement. PREREQUISITES: ENGL 1101 and 1102 , or their equivalents.
[1501-1]
Note: No student may enroll for an upper-division English course until he has completed satisfactorily ENGL 1101, 1102, or their equivalents, and any two of the following: ENGL 2101, 2102, 2103, 2104, 2105, 2106, or their equivalents.
113. Special Topics in Advanced English. (1-3). A course of study centering around a literary or linguistic topic or problem. Content of the course may vary from semester to semester. PREREQUISITE: dermission of the department chairman or his representative. [1502-1]
114. The Medieval Period. (3). Readings in English authors chiefly of the fourteenth and fifteenth centuries related to study of Middle English.[1502-1] 3212. The Sixteenth Century. (3). A study of the poetry and prose, chiefly non-dramatic, of the sixteenth and the early seventeenth century.
[1502-1]
115. The Seventeenth Century. (3). Selected poetry and prose from Donne and Bacon to the Restoration, studied in relation to political and intellectual events of the period [1502-1]
116. The Restoration and the Eighteenth Century. (3). A study of poetry and prose from 1660 to the Romantic Period, with attention to theoretical aspects of neoclassicism and the advent of romanticism. [1502-1]
117. The Romantic Period. (3). A study of English Romantic poetry, with some attention to the prose written during the early decades of the nineteenth century. [1502-1]
118. Victorian Poetry. (3). A study of major English poets writing between 1830 and 1900 with some consideration of the social, intellectual, and aesthetic interests of the period. [1502-1]
119. Victorian Prose. (3). A study of English prose between 1830 and 1900 with emphasis on critical and philosophical works. [1502-1]
120. The Twentieth Century. (3). A study of the major literary movements and techniques of English literature in the twentieth century. [1502-1]
121. American Literature. (3). A survey of American literature from the beginning through the Romantic period. [1502-1]
122. American Literature. (3). A survey of American literature from the advent of Realism to the present. [1502-1]
123. The American Novel. (3). Readıng of representative American novels of the nineteenth century with consideration of their relation to English and European work and to American developments in the genre. [1502-1]
124. The American Novel. (3). Reading of representative American novels from 1900 to the present, with attention to relevant literary and cultural developments in Europe and America.
[1502-1]
125. European Literature. (3). Major literary works of western civilization from Homer through the Renaissance, read in English translation. [1503-1]
126. European Literature. (3). Major literary works of western civilization from 1600 to the present, read in English translation. [1503-1]
3441 . The Continental Novel. (3). Critical analysis and appreciation of representative novels chosen from the works of important European writers from 1850 to 1950. [1503-1]
127. English Grammar. (3). A brief introduction to current linguistic scholarship concerning grammatical theory, especially the transformation generative description of the sounds, word structure, syntax, and semantics of English. This course is neither a review of grammar nor a remedial course.
[1505-1]
128. Theory and Practice in Literary Criticism. (3). An introduction to theory of literature related to exercises in practical criticism. [1501-1]
129. Senior Honors Seminar I. (3). Intensive study of a problem in language or literature. Enrollment limited to English honors students. [1502-1]
130. Senior Honors Seminar II. (3). Intensive study of a problem in language or literature. Enrollment limited to English honors students.
[1502-1]
131. Chaucer. (3). A study of Chaucer as a literary artist, including a reading of representative works and discussion of their philosophical and social context. [1502-1]
132. Shakespeare's Tragedies. (3). A study of selected tragedies, with detailed critical examination of at least five. [1502-1]
133. Shakespeare's Comedies and Histories. (3). A study of selected comedies and histories. [1502-1] 4234. Milton. (3). A study of Milton's development as a literary artist, with emphasis on his poetry but with some attention to his prose. [1502-1]
134. The English Novel. (3). A study of major English novels from the Renaissance to the midnineteenth century. [1502-1]
135. The English Novel. (3). A study of major English novels from the mid-nineteenth century to the present. [1502-1]
136. English Drama. (3). A study of the development of the genre in England from medieval tımes to 1642. [1502-1]
137. English Drama. (3). A study of English drama from 1660 to the present, with attention to developments in the genre. [1502-1]
138. American Literature: Major Writers. (3). A study of seven major writers before 1850 including Poe, Hawthorne, Melville, Thoreau, and Emerson.
[1502-1]
139. American Literature: Major Writers. (3). A study of seven major writers after 1850 including Whitman, Dickinson, James, Twain, and Eliot.
[1502-1]
140. Southern Literature. (3). A study of Southern literature from its beginning to the present with emphasis on twentieth-century authors. [1502-1]
141. American Drama. (3). The development of American drama as a literary form studied in relation to the English and European tradition and to currents in American thought. [1502-1]
142. Black American Literature. (3). A study of Black American writing, from its beginnıng to the present, with emphasis upon major authors [1502-1] 4423. Contemporary Poetry. (3). A study of British and American poetry from about 1900 to the present.
[1502-1]
143. Contemporary Fiction. (3). A study of English and American fiction from about 1900 to the present. [1502-1]
144. Biblical Literature. (3). A study of selected books from the Old and New Testaments with emphasis on their literary value and with consideration of the place of the Bible in world literature.
[1503-1]
145. History of the English Language. (3). Study of the relationship of English to other Indo-European
languages; of etymology and the effects of wordborrowing. word-formation, and semantic change on English vocabulary; and of the development of English sounds, inflections, and syntax. [1505-1]
146. Creative Writing. (3). Discussion of technique of fiction and verse, analysis of models, and criticism of student work. PREREOUISITE: permission of instructor [1507-1]
147. Advanced Composition and Rhetoric. (3). A study of the rhetorical principles involved in writing clear, effective expository prose, with the emphasis placed upon the application of these principles to the student's own writing. Analysis both of readings and of student writing. Not designed for remedial purposes [1501-1]
148. Advanced Creative Writing. (3). Contınued discussions of the techniques of fiction and poetry. analysis of models, and criticism of student work. PREREQUISITE: ENGL 4601. [ 1507-1]
Graduate courses in English. For course descriptions and further detalls of the graduate program, see The Bulletin of The Graduate School.

# FOREIGN LANGUAGES <br> PROFESSOR FRANKLIN O. BRANTLEY, Chairman 

## Room 375A. Dunn Mathematics <br> Foreign Languages Building

Requirements for the majors and minors are listed on page 57. Requirements for the major or minor in Comparative Literature are listed on page 56. Detaıls for specific requirements in foreign languages for the various degrees offered by The College of Arts and Sciences are explained on page 53

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.

## E110 CLASSICS (CLAS)

With the exception of CLAS 4791, none of the following courses may be used to satisfy the foreign language requirements, nor may they be applied toward a major in classical languages.
2021. Word Origins and Vocabulary Development. (3). A study of Latin and Greek elements found in English with emphasis on the building of standard English vocabulary. [1101-1]
3021. Scientific Terminology. (3). Origin and derivation of words used in medicine and the sciences with emphasis on the building of scientific vocabulary [1101-1]
3412. Roman Culture. (3). A study based on literary sources, of public and private life, including such topics as family life, slavery, religion, medicine, law, and technology Recommended for teachers.
[1109-1]
3413. Greek Literature in Translation. (Same as COLI 3413). (3). Reading and analysis of the masterpieces of Greek literature in English translation from Homer to Lucan. Emphasis will be placed on the development of the literary types [1503-1]
3414. Roman Literature in Translation. (Same as COLI 3414). (3). Reading and analysis of the masterpieces of Roman literature in English translation from the origins to the close of the Silver Age. Emphasis will be placed on the genres of Roman literature. [1503-1]
4791. Special Studies in Classics. (1-3). A study of selected topics in classical literature and civilization. May be repeated for a maximum of six hours credit. PREREQUISITE: permission of the chairman and instructor [1 199-8]

## E140 GREEK (GREK)

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

## E170 LATIN (LATN)

1101. Elementary Latin. (3). Elements of grammar; practice in Latin composition and translation.
[1109-1]
1102. Elementary Latin. (3). Completion of elementary Latin grammar, with additional readings. PREREQUISITE: LATN 1101 or the equivalent. [1109-1]
1103. Intermediate Latin. (3). A review of basic Latin grammar with reading selections from The Golden Fleece and Roman history. PREREQUISITE: LATN 1102 or the equivalent. [1109-1]
1104. Intermediate Latin. (3). A continuation of Latin 2201, with more advanced readings from major authors PREREQUISITE: LATN 2201 or the equivalent. [1109-1]
1105. Roman Historians. (3). Readings and analysis of selections from Caesar, Livy, Tacitus, and Suetonius, with emphasis on the nature of Roman historiography. [1109-1]
3811 . Ovid. (3). Reading and analysis of the myths in Ovid's Metamorphoses. [1109-1]
1106. Cicero. (3). Reading and analysis of $D e$ Amicitia and De Senectute. [1109-1]
1107. Roman Letter Writers. (3). Reading and analysis of Cicero's Letters. [1109-1]
1108. Roman Satire. (3). Reading and analysis of the satires of Horace, Persius, and Juvenal. [1109-1] 4711. Elegy, Lyric, and Epigram. (3). Reading and analysis of selections from Catullus, Horace, Tibellus, Propertius, and Martial. [1 109-1]

## 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 satisfy any part of the foreign language requirement nor do they apply toward a major or minor in any of the foreign languages. They may count toward a major or minor in Comparative Literature.
3411 . European Literature. (3). Major literary works of western civilization from Homer through the Renaissance, read in English translation. (Same as ENGL 3411.) [1503-1]
3412. European Literature. (3). Major literary works of western civilization from 1600 to the present, read in English translation. (Same as ENGL 3412. )
[1503-1]
3413. Greek Literature in Translation. (Same as CLAS 3413). (3). Reading and analysis of the masterpieces of Greek literature in English translation from Homer to Lucan. Emphasis will be placed on the development of the literary types. [1503-1]
3414. Roman Literature in Translation. (Same as CLAS 3414). (3). Reading and analysis of the masterpieces of Roman literature in English translation from the origins to the close of the Silver Age. Emphasis will be placed on the genres of Roman literature. [1503-1]
3441. Russian Literature of the Nineteenth Cen-
tury. (3). An introduction to the authors of the Golden Age of Russian Literature, with representative works from Pushkin, Lermontov, Gogol, and Turgenev. (Same as RUSS 3441 but in English translation.)
[1503-1]
3442. Russian Literature of the Nineteenth Century. (3). Readings in representative works of Dostoevski, Tolstoi, Chekov, and Gorki. (Same as RUSS 3442 but in English translation.) [1503-1]
4423. Cervantes. (3). A study of Don Quixote and the Novelas ejemplares. (Same as SPAN 4423 but in English translation.) [1503-1]
4431. Contemporary Spanish Prose. (3). A study of Spanish prose from the Generation of 1898 to the present. (Same as SPAN 4431 but in English translation.) [1503-1]
4432. The Contemporary French Novel. (3). A general survey of the twentieth century French novel, treating the works of such authors as Proust, Gide, Mauriac, Malraux, Sartre, Camus, Maurois, and others. (Same as FREN 4432 but in English translation.) [1503-1]
4441. Dante. (3). A study of the Vita Nuova and the Divina Commedia. (Same as ITAL 4441 but in English translation.) [1503-1]
4461. Twentieth Century German Prose and Poetry. (3). A study of works of Hesse, Thomas Mann, Kafka, Rilke, Frisch, and Grass. (Same as GERM 4461 but in English translation.) [1503-1]
4791. Studies in Comparative Literature. (3). A study of selected authors, works, or literary problems. May be repeated for credit up to a maximum of six (6) hours. A maximum of three (3) hours credit is accepted toward the completion of the requirements for the Comparative Literature major or minor. PREREQUISITE: joint consent of instructor and the director of the Comparative Literature program.
[1503-1]

## E210 LANGUAGES (LANG)

1701-1702. Special Studies in Modern Foreign Languages. (3, 3). This course is designed to provide freshman-level instruction in languages not regularly offered by the Department of Foreign Languages; classes will be offered if and when sufficient demand exists and instructors are available. Although credit earned in these courses may be used to satisfy the foreign language requirements for degrees, students should be aware of these two important points: (1) the foreign language requirement for degrees in The College of Arts and Sciences specifies that all twelve semester hours (or six for some professional degrees) must be in the same language; (2) unless the demand is sufficient and unless teachers are available, the University cannot offer enough courses to enable the student to meet these requirements. [1101-1]
2701-2702. Special Studies in Modern Foreign Languages. (3, 3). Continuation of Language 1701 . 1702. Will be offered provided instructor is available and there is sufficient student enrollment. [1101-1]

## E120 FRENCH (FREN)

1101. Elementary French. (3). Elements of grammar and pronunciation, with the reading of simple selections. [1102-1]
1102. Elementary French. (3). A continuation of French 1101 with reading selections of increasing difficulty. PREREQUISITE: FREN 1101 or the equivalent [1102-1]
1103. Intermediate French. (3). A comprehensive review of French grammar, exercises in writing, and readings in French literature and culture. PREREQUISITE: FREN 1102 or the equivalent. [1102-1]
1104. Intermediate French. (3). A continuation of French 2201, with more advanced readings. PREREQUISITE: FREN 2201 or the equivalent. [1102-1]
1105. Conversation and Composition. (3). PREREQUISITE: FREN 2202 or the equivalent. [1102-1]
1106. Conversation and Composition. (3). PRERE

QUISITE: FREN 3301 or permission of the instructor. | [1102-1]
3401. French Civilization. (3). The culture of France as reflected in its history, social institutions, art, and music. [1102-1]
3411. Survey of French Literature. (3) Introduction to the civilization of France through lectures and the readings of representative literary works and writers from the beginnings through the eighteenth century,
[1102-1]
3412. Survey of French Literature. (3). A continuation of the study of French civilization through lectures and reading of representative works of the major writers in the nineteenth and twentieth centuries. [1102-1]
3791. French for Commerce. (3). An introduction to French business terminology and forms of correspondence with regular readings of business, commercial and technical publications. PREREQUISITE: FREN 2202 or equivalent. [1102-1]
3792. French for Commerce. (3). A continuation of French 3791. PREREQUISITE: FREN 3791 or equivalent. [1102-1]
4301. French Phonetics. (3). The theory and practice of French sounds; especially recommended for teachers of French. PREREQUISITE: three years of college French or permission of the instructor.
[1102-1]
4305. French Stylistics. (3). Translations of English prose into French with an emphasis on style and grammar. Recommended for all French majors PREREQUISITE: FREN 3302 or permission of the instructor [1102-1]
4411. Literature Before 1600. (3). A survey of representative masterpieces of the Middle Ages and the Renaissance. Readings from the Middle Ages include La Chanson de Roland, Yvain, the lais of Marie de France, the poetry of Villon, and selections from the chroniqueurs. Readings from the Renaissance include selections from Gargantua et Pantagruel, the Essais of Montaigne, the Defense et Illustration de la langue francaise, and the poetry of Marot, Sceve, du Bellay, and Ronsard. [1 102-1]
4412. The Seventeenth Century. (3). A survey of classical literature with emphasis on the theatre of Corneille, Moliere, and Racine and their relationship to the critical theories of Boileau. Selected readings from Mme de La Fayette, La Fontaine, Mme de Sevigne, La Bruyere, and La Rochefoucauld NOTE: Students who have received credit for FREN 3421 . 3422 will not be allowed credit for FREN 4412.
[1102-1]
4431. The Nineteenth Century French Novel. (3). The French novel from the Revolution to the twentieth century, treating the movements of Romanticism, Realism, and Naturalism as they are reflected in the works of such authors as Balzac, Stendhal, Flaubert, and Zola. [1102-1]
4432. The Twentieth Century French Novel. (3). A survey of the twentieth-century French novelists, including Proust, Gide, Mauriac, Malraux, Sartre, Camus, Robbe-Grillet. [1 102-1]
4451. 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. [1102-1]
4452. Twentieth Century French Drama. (3). Principal dramatists of the present century, including Claudel, Giraudoux, Sartre, Camus, Anouihl, Montherlant, Beckett, Ionesco, and others. [1102-1] 4471. Nineteenth Century Poetry. (3). French poetry from Lamartine to Mallarme. [1102-1]
4501. Applied French Linguistics. (3). Application of modern linguistic theories to learning French. PREREQUISITE: FREN 3301. [1102-1]
4791. Special Studies in French Literature. (3). A study of selected topics in French literature. May be repeated for a maximum of 6 hours credit. PRERE-

QUISITE: permission of the chairman and instructor
[1102-1]
Graduate courses in French: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.

## E130 GERMAN (GERM)

1101. Elementary German. (3). Elements of grammar and pronunciation, with the reading of simple selections. [1103-1]
1102. Elementary German. (3). A continuation of GERM 1101, with reading selections of increasing difficulty. PREREQUISITE: GERM 1101 or equivalent.
[1 103-1]
1103. Intermediate German. (3). A comprehensive review of German grammar, exercises in writing, and readings in German literature and culture. PREREQUISITE: GERM 1102 or equivalent. [1103-1]
1104. Intermediate German. (3). A continuation of German 2201, with more advanced readings. PREREQUISITE: GERM 2201 or equivalent. [1103-1]
1105. Scientific German. (3). A continuation of 2201, with readings in science areas. PREREQUISITE: GERM 2201 or equivalent. [1103-1]
1106. Conversation and Composition. (3). PRERE QUISITE: GERM 2202 or equivalent. [1103-1]
1107. Conversation and Composition. (3). PRERE QUISITE: GERM 3301, or permission of the instructor. [1103-1]
1108. Introduction to German Literature and Culture, Part I. (3). From the beginnings to 1600 PREREQUISITE: GERM 2202 or the equivalent.
[1103-1]
1109. Introduction to German Literature and Culture, Part II. (3). From the Baroque period through the Romantic period (1600-1830). PREREQUISITE: GERM 2202 or equivalent [1103-1]
1110. Introduction to German Literature and Culture, Part III. (3). From the Biedermeier period to the present day (1830-today). PREREQUISITE: GERM 2202 or equivalent. [1 103-1]
1111. German Poetry. (3). A survey of the lyric and ballad from the twelfth to the twentieth centuries, with readings from Minnesang, the Baroque, Enlightenment. Sturm und Drang, Classicism, Romanticism, Realism, and the modern period. PREREQUISITES two courses from the group GERM 3301, $3410,3411,3412$; or permission of the instructor [1103-1]
1112. German for Commerce. (3). An introduction to German business terminology and forms of correspondence with regular readings of business, commercial and technical publications. PREREQUISITE: GERM 2202 or equivalent. [1103-1]
1113. German for Commerce. (3). A continuation of GERM 3791. PREREQUISITE: GERM 3791
[1103-1]
1114. Major German Writers of the Twentieth Century. (3). Study of selected works of Hesse, Thomas Mann, Kalka, Frisch, Durrenmatt, Brecht, and Boll. PREREQUISITE: two courses from the group GERM 3301, 3410, 3411,3412 ; or permission of the instructor [1103-1]
1115. The Age of Goethe. (3). Study of the development of German Classicism. Reading of major works of Goethe and Schiller. Selected readings from other important writers of the period. PREREQUISITE: two courses from the group GERM 3301, 3410, 3411, 3412; or permission of the instructor. [1103-1]
1116. The German Drama. (3). A survey of dramatic literature from the sixteenth to the wentieth centuries, with readings from the Reformation, the Baroque, Enlightenment, Sturm und Drang. Classicism, Romanticism, Realism, and the modern period. PREREQUISITES: two courses from the group GERM 3301, 3410, 3411,3412 , or permission of the instructor. [1103-1]
1117. German Narrative Prose. (3). Reading of major prose writing from Romanticism to the present. Special emphasis will be placed on the Novelle. PREREQUISITES: two courses from the group GERM 3301, 3410, 3411, 3412; or permission of the instructor. [1103-1]
1118. 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 the instructor. [1103-1]
1119. The German Language: Development and Structure. (3). Study of the German language in its various stages of development. PREREQUISITE: GERM 3301 or 3302; or permission of the instructor.
[1103-1]
1120. Special Studies in German Literature. (3). A study of selected topics in German literature. May be repeated for a maximum of 6 hours credit. PREREQUISITE: permission of chairman and instructor.
[1103-1]

## E160 ITALIAN (ITAL)

1101. Elementary Italian. (3). Elements of grammar and pronunciation, with the reading of simple selectıons. [1104-1]
1102. Elementary Italian. (3). A continuation of Italian 1101, with selections of increasing difficulty. PREREQUISITE: ITAL 1101 or the equivalent.
[1104-1]
1103. Intermediate Italian. (3). A comprehensive review of Italian grammar, exercises in writing, and reading in Italian literature and culture. PREREQUISITE: ITAL 1102 or the equivalent [1104-1]
1104. Intermediate Italian. (3). A continuation of Italian 2201, with more advanced readings. PREREQUISITE: ITAL 2201 or the equivalent [1104-1]
3411 . Survey of Italian Literature. (3). The development of the Florentine dialect as the literary language of Italy. The study of representative writers from the thorteenth to the eighteenth century. Dante PREREQUISITE: ITAL 2202 or permission of the instructor
[1104-1]
1105. Survey of Italian Literature. (3). A study of outstanding writers of the eighteenth, nineteenth, and twentieth centuries, with special attention to Goldoni, Alfieri, Leopardi, Manzoni, Pirandello, and Benedetto Croce. PREREQUISITE: ITAL 3411 or permission of the instructor. [1104-1]
1106. The Sixteenth Century. (3). Literature of the Italian Renassance. Ariosto, Machıavellı, Cellinı, Sasso, and others. [1 104-1]
1107. Dante. (3). A study of the Vita Nuova and the Divina Commedia. [1104-1]

## E190 RUSSIAN (RUSS)

1101. Elementary Russian. (3). Elements of grammar and pronunciation, with the reading of simple selections [1106-1]
1102. Elementary Russian. (3). A contınuation of Russian 1101, with reading selections of increasing difficulty PREREQUISITE: RUSS 1101 or the equivalent. [1106-1]
1103. Intermediate Russian. (3). A comprehensive review of Russian grammar, exercises in writing, and readings in Russian literature and culture. PREREQUISITE: RUSS 1102 or the equivalent. [1106-1]
1104. Intermediate Russian. (3). A contınuation of Russian 2201, with more advanced readings. PREREQUISITE: RUSS 2201 or the equivalent. [1106-1]
1105. Conversation and Composition. (3). PREREQUISITE: RUSS 2202 or the equivalent. [1106-1]
1106. Conversation and Composition. (3). PREREQUISITE: RUSS 3301 or permission of the instructor.

## [1106-1]

3411. Survey of Russian Literature. (3). Survey of Russian literature from the earliest chronicles, folktales, and legends through the classical period to
the end of the eighteenth century [1106-1]
3412. Survey of Russian Literature. (3). Survey of Russian literature from the beginning of the nineteenth century to the Soviet period. Authors include Pushkin, Gogol, Lermontov, Turgenev, Doestoevski, Tolstoi, and Chekhov. [1 106-1]
3413. Russian Literature of the Nineteenth Century. (3). An introduction to the authors who herald the Golden Age of Russian Literature, with representative works from Pushkin, Lermontov, Gogol, and Turgenev [1106-1]
3414. Russian Literature of the Nineteenth Century. (3). Readings in representative works of Doestoevski, Tolstoi, Chekhov, and Gorki. [1106-1]
3415. Russian Literature of the Twentieth Century. (3). An introduction to the works of Bunin. Zamjatın, Bely, A Tolstoy, Scholochov, and Solzhenitsyn [1106-1]
3416. Russian Literature of the Twentieth Century. (3). An introduction to works which herald the Silver Age of Russian poetry. Authors include Blok, Brusov, Achmatova, Zwetaeva and Mandelstam.
[1106-1]
3417. The Art of Translating Russian. (3). Translatuons of material from Russian to English in an approved content area. PREREQUISITE: RUSS 2202 or the equivalent. [1106-1]

> E200 SPANISH (SPAN)
1101. Elementary Spanish. (3). Elements of grammar and pronunciation, with the reading of simple selections [1105-1]
1102. Elementary Spanish. (3). A contınuation of Spanish 1101. PREREQUISITE: SPAN 1101 or the equivalent [1105-1]
2201. Intermediate Spanish. (3). A comprehensive review of Spanish grammar, exercises in writing, and readings in Hispanic literature and culture PREREQUISITE: SPAN 1102 or the equivalent [1105-1]
2202. Intermediate Spanish. (3). A continuation of Spanish 2201, with more advanced readings. PREREQUISITE: SPAN 2201 or the equivalent.
[1105-1]
3301. Conversation and Composition. (3). PREREQUISITE: SPAN 2202 or the equivalent. [1105-1]
3302. Conversation and Composition. (3). PREREQUISITE: SPAN 3301 or permission of the instructor. [1105-1]
3411 . Survey of Spanish Literature. (3). Formation of the Spanish language and literature, with readings or representatıve works to illustrate principal perıods and genres from the beginnings to 1700. [1105-1]
3412. Survey of Spanish Literature. (3). A contınuation of Spanish 3411 , covering Neoclassicism, Romantucism, costumbrismo, Realism, Naturalism, and the contemporary period. [1105-1]
3511. Survey of Spanish American Literature. (3). A survey of Spanish American literature from the Colonial Period to the end of Romanticism. [1105-1]
3512. Survey of Spanish American Literature. (3). A survey of Spanish American literature from the beginnings of Modernism to the present. [1105-1]
3611. Survey of Spanish Civilization. (3). Spaın and its people; highlights of Spanish civilization as revealed in the fields of literature, music, painting, and architecture. [1105-1]
3612. Survey of Latin American Civilization. (3). Latin America and its people; highlights of Latın American civilization as revealed in the fields of literature, music, painting, and architecture. [1105-1] 3791. Spanish for Commerce. (3). An introduction of Spanish business terminology and forms of correspondence with regular readings of business, commercial and technical publications. PREREQUISITE: SPAN 2202 or equivalent. [1105-1]
3792. Spanish for Commerce. (3). A continuation of Spanish 3791. PREREQUISITE: SPAN 3791.
[1105-1]
4301. Spanish Phonetics. (3). The sounds and intonation patterns of Spanısh: analysis and practice; comparison with the sounds and intonation patterns of English. Especially recommended for teachers of Spanish. [1105-1]
4302. Advanced Grammar. (3). A thorough and systematic presentation of Spanish grammar. Recommended for all Spanish majors. PREREQUISITE: SPAN 3301 and 3302. [1105•1]
4391. Topics in Spanish Language. (3). Selected problems in Spanish and Spanish American dialectology and usage; topics of current concern in Spanish linguistics; individual or group projects involving field techniques. May be repeated for a maximum of six (6) semester hours credit, provided the same topic is not repeated. PREREQUISITES: SPAN 3301 and 3302 or permission of instructor.
[1105-1]
4421. The Golden Age. (3). A study of Spanish lyric poetry and drama of the sixteenth and seventeenth centuries. PREREQUISITES: SPAN 3411 and 3412. or permission of the instructor. [1105-1]
4423. Cervantes. (3). A study of Don Quixote and the Novelas ejemplares. [1105-1]
4431. Contemporary Spanish Prose. (3). A study of Spanish prose from the Generation of 1898 to the present. PREREQUISITES: SPAN 3411 and 3412 , or permission of the instructor. [1105-1]
4432. Contemporary Spanish Poetry and Drama. (3). A study of Spanish poetry and drama from the Generation of 1898 to the present. PREREQUISITES: SPAN 3411 and 3412, or permission of the instructor. [1105-1]
4501. Applied Spanish Linguistics. (3). Application of linguistic theory to the learning and teaching of Spanish; recommended for teachers. PREREQUISITE: SPAN 4301 or permission of instructor.
[1105-1]
4532. Spanish American Drama. (3). Development of the drama in Spanish America, with an emphasis on the twentieth century. PREREQUISITES: SPAN 3411-3412 or one of SPAN 3511, 3512. [1105-1]
4561. Spanish American Prose Fiction I. (3). Development of the novel and short story in Spanish America from the beginnings through the Mexican Revolution. PREREQUISITE: SPAN 3511. [1105-1]
4562. Spanish American Prose Fiction II. (3). The Spanish American novel and short story from the Mexican Revolution to the present. PREREQUISITE: SPAN 3512. [1105-1]
4791. Special Studies in Hispanic Literature. (3). A study of selected topics in Hispanic Literature. May be repeated for a maximum of 6 hours credit. PREREQUISITE: permission of chairman and instructor. [1105-1]

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

## GEOGRAPHY

PROFESSOR W. THEODORE MEALOR,

## Room 115, Johnson Hall

Requirements for the major and minor in geography are listed on page 57
IMPORTANT NOTE: The prerequisite for all 3000 and 4000 level courses is either junior standing (a minimum of 55 semester hours credit) or the permission of the instructor.

## E220 GEOGRAPHY (GEOG)

1101. Introduction to Earth Science I. (4). An introductory study of earth-sun and earth-moon relations, the oceans and their movements, weather, and climate. Three lecture, two laboratory hours per week. [1917.1]
1102. Introduction to Earth Science II. (4). An
introductory study of maps as a basic tool in understanding earth phenomena, landforms, the structure and composition of rocks, soils, and their capabilities. Three lecture, two laboratory hours per week. [1917-1]
1103. A Survey of World Regions I. (3). An introduction to the essential elements of geographical analysis to establish a framework for understanding many of the complexities of the contemporary world. A survey will be made of those regions of the world generally referred to as "developing" and will encompass most of Africa, Asia, and Latin America. [2206-1]
1104. A Survey of World Regions II. (3). This course is a continuation of the approach developed in 2301. The emphasis however, will be on the more highly "developed" areas, including Europe, North America, and the Soviet Union. [2206-1]
1105. Peoples and Cultures of the World (Same as ANTH 3200). (3). Survey of the major ethnographic areas and of selected cultures of the world. [2202-1] 3201. Economic Geography I. (3). An analysis of the spatial characteristics of economic systems which are directly related to the physical environment, with a particular emphasis on agricultural systems. [2206-1]
1106. Economic Geography II. (3). An analysis of the spatial characteristics of manufacturing, trade, and service systems as they relate to the physical environment and their relationship to urban development. [2206-1]
1107. Africa South of the Sahara. (3). An analysis of the resources and regional complexities with stress on the significance of the relationship between cultural and physical phenomena to economic and political development. [2206-1]
1108. Anglo-America. (3). An analytical study of the cultural-physical complex in the western United States, Canada, and Alaska. [2206-1]
1109. Central America and the Caribbean. (3). A study of the regions and resources of Central America and the West Indies as they relate to present and potential economic development. [2206-1]
1110. South America. (3). An analysis of the regional economies, resources, and trade in the continent, with stress upon the changing significance of the landscape as related to national and international problems. [2206-1]
1111. Historical Geography of Europe. (3). An analysis of human occupancy in Europe during selected periods, with a study of significant relationships between the physical and cultural features. [2206-1]
1112. Historical Geography of the United States. (3). A study of the geography of selected areas of the United States for sequent periods of their occupancy by the white man. [2206-1]
1113. Principles of Conservation. (3). Current problems and responsibilities relating to the conservation of soil, minerals, forests, water, wild life, and the natural beauty of the earth. [2206-1]
1114. Map Intelligence. (3). A comprehensive study of maps as geographic tools that enable the user to gain knowledge concerning the earth through map reading and map interpretation and to make an intelligent use of such map information. [2206-1]
1115. Map Projections: Analysis and Construction. (3). Analysis and construction of a select number of projections for depicting the earth's curved surface as transformed to a plane surface to provide an accurate framework for displaying particular distribution on a map. [2206-1]
1116. Earth Science I. The Atmosphere. (3). An analytical study of the physical processes underlying the behavior and responses of the atmosphere and the application of this general body of knowledge to an understanding of the relationship of man to this important element of his environment. [1917-1]
1117. Earth Science II. The Earth. (3). An analytical
study of land forms, their changes, and their uses to man. [1917-1]
1118. Earth Science III. The Soil. (3). An analytical study of soıls to include their physical, chemical, and biological qualities, and their classes, uses, and measures of conservation. [1917-1]
1119. Earth Science IV. The Oceans. (3). An analytical study of the oceans to include their physical, chemical, and biological qualities; their movements, resources, climatic influences, and importance for transportation. [1917-1]
1120. Western Europe. (3). A geographic analysis of the lands west of the Iron Curtain. [2206.1]
1121. The Soviet Realm. (3). A regional analysis of the Soviet Union and its satellites. [2206-1]
1122. The Far East. (3). A consideration of the significance of regional differences in Japan, China, and India, and a brief survey of the remaining areas.
[2206-1]
1123. Geography of Mexico. (3). A comprehensive and systematic survey of the geographic regions, resources, and potentialities of Mexico and their significance in the economic and political affairs of Latin America and the world. [2206-1]
1124. Geography of Brazil. (3). A comprehensive and systematic survey of the geographic regions, resources, and potentialities of Brazil and their significance in the economic and political affarrs of Latin America and the world. [2206-1]
1125. The South. (3). A specialized study of selected regions in the South with emphasis on changes and trends in the cultural-physical complex. [2206-1]
1126. Tennessee. (3). A comparison of the human use, political, and physical regions of the state.
[2206-1]
1127. Political Geography. (3). An introduction to the study of the spatial distribution, characteristics, and interaction of political processes and systems. Individual student study of selected problems will be required. [2206-1]
1128. Urban Geography. (3). A study of the allocation of land for urban uses; the adjustments and adaptations to existing physical phenomena; the patterns, functions, and forms of specific urban land areas; and some of the continuous problems of urban development and growth. [2206-1]
1129. Map Design and Reproduction. (3). The planning, construction, and reproduction of maps, which through symbolic language, present information about the earth's patterns in a most effective manner. [1999-1]
1130. Computer Mapping. (3). Instruction in the use of computer mapping programs as effective techniques for the visual presentation of a wide variety of data. [1999-1]
1131. Remote Sensing of the Environment. (3). A survey of the art and science of obtaining geographic information about the earth's landscapes by means of aerial photography and satellite imagery. [2206-1]
1132. Quantitative Methods. (3). An introduction to quantitative methods in geographic analysis.
[0701-1]
1133. Field Study. (6). A comparative study of selected regions of the world, including library study and oral and written reports. Repeatable up to maximum of six hours. [2206-1]
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

Requirements for the major and minor in history are listed on page 57. All candidates for graduation at Memphis State University are required to complete

History 2601 and 2602. Courses numbered above 3000 are not open to students with fewer than 55 semester hours credit.

History Honors Program. History majors who have attained junior standing, have completed successfulIy six semester hours of lower division history, and have maintained a grade point average of 3.25 in overall studies and in any history course taken, are eligible for admission to the honors program in history. Students admitted to the program will take 12 hours of honors work in history, including History 4003 and History 4996 , during their junior and senior years. Those who successfully complete the program and the regular B.A. requirements will be awarded the degree of 8 achelor 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.

## E240 HISTORY (HIST)

1301. The Development of World Civilization I. (3). Especially recommended for freshmen, this course traces the forms of civilization from their ancient beginnings through the seventeenth century.
[2205-1]
1302. The Development of World Civilization II. (3). Especially recommended for freshmen, this course traces the forms of civilization from the beginning of the eighteenth century to the present.
[2205-1]
1303. The United States to 1877 . (3). A survey of the United States from discovery to the end of political reconstruction. [2205-1]
1304. The United States since 1877. (3). A survey of the United States from 1877 to the present.
[2205-1]
1305. England Before 1714. (3). A survey of the political, constitutional, cultural, social, and economic development of England from the coming of the Anglo-Saxons until the Hanoverian accession in 1714. [2205-1]
1306. England Since 1714. (3). A survey of the development of England's democratic government, considering economic, social, intellectual, diplomatıc, and imperial affairs. [2205-1]
1307. History of Spain. (3). A survey of Spanish institutions, culture, and politics from ancient times to the present. [2205-1]
1308. Colonial Latin America. (3). A survey of political, economic, social and cultural development in Latin America from the pre-conquest era to 1808.
[2205-1]
1309. The Latin American Nations. (3). A survey of the major political, economic, and social trends in Latin America since 1808 . Emphasis is placed on Argentina, Brazil, Chile, and Mexico. [2205-1]
1310. History of the Spanish Borderlands. (3). A study of northern Mexico and areas of the southern United States originally colonized by Spain, from the Spanish discovery to the treaty of Guadalupe Hidalgo.
[2205-1]
1311. Traditional East Asia. (3). A survey of Chinese and Japanese civilizatıon from their begınnings through the eighteenth century. [2205-1]
1312. Modern East Asia. (3). A survey of the Far East during the nineteenth and twentieth centuries.
[2205-1]
1313. American Diplomatic History to 1913. (3). A study of the diplomacy of the United States to 1913. The relationship of diplomacy to domestic policy and attıtudes will be emphasized. [2205-1]
1314. American Diplomatic History Since 1913. (3). A study of the diplomacy of the United States since 1913. The relationship of diplomacy to domestic policy and attıtudes will be emphasized
[2205-1]
1315. Economic History of the United States to 1865. (3). A study of American economic development to 1865. [2205-1]
1316. Economic History of the United States since 1865. (3). A study of American economic development since 1865. [2205-1]
1317. United States Constitutional History. (3). A survey of constitutional developments from the colonial period to the present with emphasis on the English heritage, the constitutional antecedents of the revolutionary era, the origins and growth of the federal system under the Constitution of 1787, and the evolution of modern constitutional government in the United States [2205-1]
3861 . Social and Intellectual History of the United States to 1865. (3). A study of the maın social and intellectual trends in the United States to 1865.
[2205-1]
1318. Social and Intellectual History of the United States since 1865. (3). A study of the main social and intellectual trends in the United States since 1865. [2205-1]
1319. United States Urban History. (3). A study of the development of American cities, including formation of local social, economic, and political institutions, and the impact of urbanization on the United States. [2205-1]
1320. History of Tennessee. (3). A study of the political, economic, and social development of Tennessee from earliest times. [2205-1]
1321. The Old South. (3). A study of southern institutions prior to the outbreak of the Civil War.
[2205-1]
1322. The New South. (3). A study of the South from the Civil War to the present. [2205-1]
1323. The West. (3). A study of the significance of the frontier in the development of the United States from the Revolutionary period to 1890. [2205-1]
1324. Historiography and the Philosophies of History. (3). A survey of the important ideas which men in Western Civilization have entertaıned about the nature and meaning of history. Approximately one-fourth of the course will be devoted to a common body of readings and to class discussion of the basic problems involved, the remainder will be conducted on the basis of individual tutorials. PREREQUISITE: admission to the honors program. [2205-1]
1325. Topics in History. (3). Intensive study of selected topics in history. The topics will be announced in the Schedule of Classes. [2205-1]
1326. Directed Readings, Honors. (3). Under the direction of a faculty member, the student will engage in a course of reading related to a particular topic or topics. PREREQUISITE: admission to the Honors Program. [2205-8]
1327. Victorian England, 1840-1900. (3). Readings and discussion on selected topics such as the development of English liberal thought, Victorian society and values, and imperialism. [2205-1]
1328. History of Modern Germany. (3). A study of Germany from the origins of the unification movement in the Napoleonic Era through the Second World War. [2205-1]
1329. History of Russia to 1801. (3). A study of the political, economic, social, and cultural development of Russia from early times to the beginning of the nineteenth century. [2205-1]
1330. History of Russia from 1801 to 1917. (3). A study of the political, economic, cultural, and intellectual development of the Russian Empire from the reign of Alexander I to the Bolshevik Revolution of 1917. [2205-1]
1331. History of the Soviet Union. (3). A detailed study of the 1917 Revolution and the major developments in government, economy, cultural and social life, and international affairs which followed.
[2205-1]
1332. History of Socialism and Marxism. (3). A study of socialist and Marxist thought and the rise of socialist and Marxist social and political movements in Europe, Russia and the Far East. The unique social,
economic, and political conditions, which gave rise to the experimentation with and the application of Marxism will be stressed [2205-1]
1333. History of Mexico. (3). A survey of the political, economic, social, and cultural development of Mexico from ancient times to the present.
[2205-1]
1334. History of Brazil. (3). A survey of the political, economic, social, and cultural development of Brazil from early times to the present [2205-1]
1335. Africa South of the Sahara. (3). A survey with major emphasis on black Africa in the nineteenth and twentieth centuries. The age of imperialism and the impact of the West on Africa, the colonial policies of the European powers; the rise of the natıonalıst movements: the problems of newly independent nations; the role of African countries in world affairs. [2205-1]
1336. The History of North Africa. (3). A survey with major emphasis on the nineteenth and twentieth centuries. The extensiôn of European influence and control; the rise of nationalıst movements; the role of these areas in world affairs. [2205-1]
1337. The History of Southern Africa. (3). A study of the course of European colonization and its impact on the African people from 1652 to date in the Republic of South Africa, Rhodesia, and the former High Commission territories. [2205-1]
1338. European Imperialism in Africa. (3). Readings and discussion of selected case histories of European annexations of African territory, largely in the period 1870-1900. The partition of Africa is studied against the background of great power politics. [2205-1]
1339. History of Modern China, 1800 to the Present. (3). A study of China since 1800. [2205-1] 4294. History of Modern Japan, 1800 to the Present. (3). A study of Japan since 1800. [2205-1] 4295. Intellectual History of East Asia Since 1800. (3). A study of the evolution of modern Chinese and Japanese thought. [2205-1]
1340. History of Ancient Civilization I. (3). A study of the Ancient Near East and Greece through the tıme of Alexander the Great. [2205-1]
1341. History of Ancient Civilization II. (3). A study of the Hellenistic World and of the rise and fall of the Roman Empire. [2205-1]
1342. History of the Byzantine Empire. (3). A history of the Byzantine or East Roman Empire from 330 to 1453 and its influence on the Slavic, Turkıc, and Islamic peoples. [2205-1]
1343. Early Middle Ages. (3). A study of the Late Roman Empire, the migration period, the emergence of Islamic, Byzantine, and West European cultures through the period of the Investitute Controversy.
[2205-1]
1344. The High Middle Ages. (3). A study of the urban emergence, the growth of feudal monarchy. the foundations of modern political institutions, the medieval universities, and the intellectual fabric of scholasticism. [2205-1]
1345. Renaissance Europe, 1300-1520. (3). A study of the transition from medieval to early modern institutions in Europe with an emphasis on urban growth, capitalism, emergent natıonalism, international diplomacy, and humanism. [2205-1]
1346. Europe in the Age of the Reformation. (3). A consideration of the characteristic political, social, economic, intellectual, and cultural developments and the religious conflicts of the late fifteenth and sixteenth centuries. [2205-1]
1347. Europe in the Age of the Baroque. (3). A study of the political crises, the development of monarchial absolutism, the rise of modern science, and the cultural synthesis in the seventeenth century. [2205-1]
1348. The Age of the Enlightenment. (3). A study of intellectual, cultural, social, and political
developments in eighteenth-century Europe.
[2205-1]
1349. The Era of the French Revolution. (3). A study of the origins and course of the French Revolution in the context of the revolutionary and counter-revolutionary movements in the Atlantic world [2205-1]
1350. Europe, 1815-1870. (3). A study of Europe during the period 1815-1870. [2205-1]
1351. Europe, 1870-1914. (3). A study of Europe during the period 1870-1914. [2205-1]
1352. Europe, 1914-1939. (3). A study of Europe during the period 1914-1939. [2205-1]
1353. Europe, 1939 to Present. (3). A study of Europe since 1939. [2205-1]
1354. Intellectual History of Europe I. (3). Topics in the history of European thought and culture from the thirteenth through the seventeenth century. [2205-1]
1355. Intellectual History of Europe II. (3). Topics in the history of European thought and culture from the eighteenth century to the present. [2205-1]
1356. Disease, Medicine, and History. (3). A study of how various diseases and the medical attempts to conquer them have influenced economic, political, and social action throughout history. Particular emphasis is given to significant work in the history of public health and to speculation about the importance of environmental factors in man's future.
[2205-1]
1357. Colonial America, 1607-1763. (3). A study primarily of the political development and institutions of the English Colonses in America before 1763, with some attention given to Spanish, French, and Dutch colonization. [2205-1]
1358. Era of the American Revolution, 1763 1790. (3). A study of the origins and conduct of the American Revolution, the United States under the Articles of Confederation, and the writing and ratification of the Constitution. [2205-1]
1359. The Early American Republic, 1790-1825. (3). A study of American history from unificatıon until 1825. [2205-1]
1360. The Jacksonian Period, 1825-1850. (3). A study of American history from 1825 to 1850.
[2205-1]
1361. Civil War, 1850-1865. (3). A study of division and conflict. [2205-1]
1362. Rsconstruction. 1865-1877. (3). The study of an America attempting to remake itself. [2205-1] 4680. Emergence of Modern America, 1877. 1914. (3). A study of the United States from the end of Reconstruction to the outbreak of World War I.
[2205-1]
1363. The United States, 1914 to the Second World War. (3). A study of the United States from the outbreak of World War I to World War II. [2205-1]
1364. The United States from the Second World War. (3). A study of the United States from World War 11 to the present. [2205-1]
1365. United States Military and Naval History. (3). A survey of developments since the colonial period with emphasis on the background and growth of national military and naval establishments, military and naval thought, the difficulties accompanying modernization and assumption of global responsibilities, and the problem of the relationship between the civilian and military-naval sectors in a democracy. [2205-1]
1366. American Labor History. (3). A study of the historical development of the labor movement in the United States, with spectal emphasis given to the social, economic, and political trends related to the labor movement. [2205-1)
1367. Black American History. (3). A survey of the role of the blacks in America from Jamestown to the present. [2205-1]
1368. History of the American Indian. (3). A study
of the role of the Indian in American history [2205-1] 4996. Honors Thesis. (3). Under the direction of a faculty member, and with the approval of the Honors Committee, each honors student will write a thesis based on research in primary and/or secondary sources. 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
Requirements for a major or minor in mathematical sciences are given on page 57.
The Department of Mathematical Sciences offers general courses in mathematics, statistics and computer science for students in all departments of the University, with specially designed programs for the principal divisions of the University. Courses which satisfy specific graduation requirements of the 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 Algebra, prepares the student for either MATH 1203 or Muth 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 for credit by making written application to the chairman of the department and paying the appropriate fees for such credits to be recorded, prior to the exam.

Students may earn credit by examination in any mathematics course after obtaining permission of the department chairman and paying the appropriate fees. A form for this purpose is available in the office of the department chairman.
NOTE: A student who wishes to take a course without having had all of its prerequisites must obtain permission of the instructor and of the Chairman of the Department of Mathematical Sciences.

## Honors Program in Mathematics

The Department of Mathematical Science offers an honors program in mathematics for the talented student who desires to achieve mathematical maturity at a rate consistent with his own exceptional ability. The core of this program is a two-year sequence of course work in depth, the ideas of which underlie all of contemporary mathematics. After completion of this two-year sequence, the participant will be treated as a mature student of mathematics and he will be allowed to register for any course in mathematical sciences at the B.S. or M.S. level (subject to the regulation of the Graduate School concerning combination undergraduate-graduate students as set forth on page five of Policies of the Graduate School) regardless of the formal course prerequisites. The second two years of the honors program are thus characterized by a high degree of flexibility and mathematical maturation. Specific requirements are as follow:

1. MATH 1401, 1402, 2401, 2402 (in lieu of 1321, 2313, 2322, and 4241.
2. At least two approved one-semester courses containing significant mathematical applications, taken in a department other than Mathematical Sciences.
3. A minimum of 18 hours of upper-division courses in Mathematical Sciences, including

Senior Honors Seminar, with a QPA of 3.5 or better in these courses; courses to be determined in consultation with the student's advisor and with the approval of the departmental Honors Committee.
Students completing the honors program will be awarded the special distinction "With Honors in Mathematical Sciences" at commencement. The Honors Committee of the Department of Mathematical Sciences will make all decisions concerning admissions to the program

## 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 program. [1701-1]
1001. Intermediate Algebra. (3). Set notation, first degree inequalities, absolute value equations and inequalities; operations on polynomials; operations on rational expressions; integral, fractional and negative exponents; operations involving radical expressions; complex numbers; quadratic equations; systems of linear equations; determinants. RESTRICTION: This course satisfies no mathematics requirement for any degree. It is offered solely as preparation for College Algebra (either MATH 1203 or MATH 1211). NOTE: No more than three hours credit in MATH 1000 and 1100 may be applied toward any degree program. [1701-1]
1002. Concepts of Number. (3). Introduction to logic; elements of set theory; systems of numeration; the real number system; algorithms; number sentences. [1701-1]
1003. Concepts of Algebra. (3). Relations and functions; equations; exponents; polynomials; applications: PREREQUISITE: MATH 1181.[1701-1]
1004. College Algebra With Business Applications. (3). Basic algebraic techniques with 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 ecnomics, finance, marketing and production. (Placement test recommended, but not required). NOTE: Only one of the courses MATH 1203 or MATH 1211 can be used to satisfy degree requirements. PREREQUISITE: MATH 1100 or its equivalent. [1701-1]
1005. College Algebra. (3). Inequalities; quadratic equations; relations and functions; absolute value; exponential and logarithmic functions; systems of equations and inequalities; matrices; complex numbers; roots of polynomials; sequences and series; binomial expansion. (Placement test recommended but not required.) NOTE: Only one of the courses MATH 1203 or MATH 1211 can be used to satisfy degree requirements. PREREQUISITE: MATH 1100 or its equivalent. [1701-1]
1006. Trigonometry. (1-3). Circular functions; inverse circular functions; graphs of circular and inverse functions; identities; equations; angles; uniform circular motion; trigonometric functions; solution of triangles; elementary application of vectors; trigonometric form of complex numbers. PREREQUISITE: placement test recommended but not required; MATH 1203 or 1211. [1701-1]
1007. College Algebra and Trigonometry. (3) Exponents; radicals; quadratic functions; inequalities; relations and functions; inverse, exponential and logarithmic functions; solution of algebraic systems; trigonometric functions, identities, equations and graphs; angle measurements; sum, difference, half-angle and double-angle formulas; solution of triangles; laws of sines and cosines.
[1701-1]
1008. Elementary Calculus. (3). Introduction to the oncepts and methods of elementary calculus of one al variable as related to rational, exponential, and garithmic functions; the nature of derivatives; diferentiation; application of the derivative; the nature f integration; the definite integral; applications of he definite integral. NOTE: Only one of the courses hATH 1312 or 1321 may be used to satisfy degree reuirements. PREREQUISITES: MATH 1182, 1203 or 211. [1701-1]
1009. Analytic Geometry and Calculus. (4) Essentials of analytic geometry of the plane with rectors; the nature of derivatives; differentiation of Igebraic and trigonometric functions; applications of he derivatives; basic concepts of integration and lefinite integral with applications. (Placement test ecommended but not required.) NOTE: Only one of he courses MATH 1312 or 1321 may be used to Fatisfy degree requirements. COREQUISITE: MATH 1212, 1213 or equivalent. [1701-1]
1010. Honors Mathematics I. (5). Elements of inear algebra; underlying concepts in integral and differential calculus. PREREQUISITE: permission of he Honors Committee. [1701-1]
1011. Honors Mathematics II. (5). Axiomatic set theory; development of the real number system. PREREQUISITES: MATH 1401, and permission of the Honors Committee. [1701-1]
1012. Selected Topics in Mathematics. (1-5). Prescribed subject matter in mathematics not specifically or appropriately covered elsewhere in the curriculum. Repeatable by permission of the department chairman. PREREQUISITE: permission of the instructor. [1701-1]
1013. Mathematics of Finance. (3). Compound interest and annuities with applications; introduction to mathematics of life insurance. PREREQUISITE MATH 1203 or 1211.[1701-1]
1014. Analytic Geometry and Calculus. (4). Differentiation, integration and analytical aspects of the elementary transcendental functions; techniques of integration; limits and continuity; applications of the definite integral; polar coordinates. PREREQUISITE: MATH 1321. [1701-1]
1015. Analytic Geometry and Calculus. (4). Indeterminate forms; improper integrals; vectors and analytic geometry in 3-space; partial differentiation; multiple integrals; infinite series. PREREQUISITE: MATH 2321. [1701-1]
1016. Honors Mathematics III. (5). Introductory point set topology; elements of abstract algebra. PREREQUISITE: MATH 1402 and permission of the Honors Committee. [1701-1]
1017. Honors Mathematics IV. (5). Topics in abstract algebra and real analysis. PREREQUISITES: MATH 2401 and permission of the Honors Committee. [1701-1]
1018. Concepts of Geometry. (3). Introduction to the idea of proof in a postulational system; development of the geometric relationships independent of number, including congruent triangles, similar triangles, parallelograms, and circles; applications of number in geometry including coordinate geometry. lengths, areas, and volumes. PREREQUISITE: MATH 1182. [1701-1]
1019. Matrix Theory. (3). Matrix algebra; elementary operations; equivalence; determinants; similarity, polynomial matrices; matrix analysis; applications. PREREQUISITE: MATH 1312 or 1321. [1701-1]
1020. Differential Equations. (3). Ordinary differential equations including series solutions. PREREQUISITE: MATH 2322. [1703-1]
1021. History of Mathematics. (3). The development of mathematics from the earliest times to the present; problem studies; parallel reading and class reports. PREREQUISITE: MATH 2321 or its equivalent. [1701-1]
1022. Special Problems in Mathematics. (1-3). Directed individual study in a selected area of
mathematics chosen in consultation with the instructor. Repeatable by permission of the chairman of the department. PREREQUISITE: permission of instructor. [1701-8]
1023. Theory of Numbers. (3). Divisibility properties of integers; prime numbers; congruences; diophantine equations; quadratic residues; number theoretic functions. PREREQUISITE: MATH 1312 or 1321. [1701-1]
1024. Linear Algebra. (3). Systems of linear equations; matrices and elementary row operations; vector spaces and subspaces; inner product spaces; linear transformations; linear functionals; annihilators; polynomials. PREREQUISITE: MATH 2321 or permission of instructor. [1701-1]
1025. Abstract Algebra. (3). Groups; homomorphisms; rings; integral domains; polynomials; fields. PREREQUISITE: MATH 4241 or permission of instructor. [1701-1]
1026. Advanced Calculus. (3). The real number system, functions and sequences, limits, continuity, differentiation; Riemann-Stieltjes integration, series of functions. NOTE: Students who have received credit for MATH 3111 will not be allowed credit for MATH 4350. PREREQUISITE: MATH 2322. [1701-1]
1027. Advanced Calculus. (3). Integration theory; Riemann and Lebesgue integrals; partial differentiation; implicit function theorem. PREREQUISITE MATH 4350 or permission of instructor. [1701-1]
1028. Complex Variables. (3). Complex numbers; analytic functions; Cauchy-Riemann conditions; Taylor and Laurent series; integration. PREREWUISITE: MATH 2322.[1701-1]
1029. Applied Mathematics. (3). Laplace transforms; Fourier series; introduction to partial differential equations. PREREQUISITE: MATH 3391
[1703-1]
1030. Applied Mathematics. (3). Partial differential equations. PREREQUISITE: MATH 4391. [1703-1]
1031. Senior Honors Seminar. (3). In-depth study of one or more topics in Mathematical Sciences with emphasis on individual research and problem solving techniques; each student will write and present an Honors Thesis. PREREQUISITE: Open only to senior Honors Students in Mathematical Sciences with permission of instructor. [1701-8]
1032. Topology. (3). Introductory set theory; metric spaces; topological spaces; continuous functions; separation axioms; separability and countability axioms; connectedness and compactness. PREREQUISITE: MATH 4350 or 4241 or permission of instructor. [1701-1]

## COMPUTER SCIENCE (MATH)

4710. Computer Programming. (3). A first course in the programming of digital computers, stressing algorithmic problem solving. BASIC and FORTRAN programming languages and their application to a variety of numerical and non-numerical problems. Use of remote batch terminals and interactive terminals. PREREQUISITE: MATH 1203 or 1211 or equivalent. [0704-1]
4711. Advanced Computer Programming. (3). The elements of computer organization, machine language, forms of data representation and instructions and their effects on algorithmic programs. Operating systems, job control language, and the use of system supplied auxiliaries. Assembler language and its application to a variety of numerical and nonnumerical problems. PREREQUISITE: MATH 4710 or its equivalent. [0704-1]
471 3. Numerical Computer Methods. (3). Methods of numerical computation; interpolations; numerical differentiation and integration; solution of algebraic and transcendental equations; inversion of larger matrices, determination of proper vectors and proper values; solution of differential and integral equations: estimation of error and error control. PREREQUISITE: MATH 4710 or its equivalent. [0701-1]
4712. Artificial Intelligence. (3). Self-organizing
systems, information theory, rational decisionmaking; pattern recognition, parametric and nonparametric training methods for developing pattern classifiers; problem solving; heuristic programming and problem reduction search methods. PREREQUISITE: MATH 2321 and 4710 or their equivalents.
[0701-1]
4713. Numerical Analysis I. (3). Derivation and application of computer-oriented, numerical methods for functional approximation, differentiation, quadrature, and the solution of ordinary differential equations. PREREQUISITES: MATH 2321 and 4710 or its equivalent. [1703-1]
4714. Numerical Analysis II. (3). A contınuation of MATH 4721; computer-oriented numerical methods for the solution of nonlinear equations; systems of linear equations; eigenvalue and eigenvector problems; least squares approximation; minimax approximation. PREREQUISITE: MATH 4721
[1703-1]
4715. Linear Programming'Methods. (3). Theory of linear programming methods; problem formulation; convex sets; simplex and revised simplex methods; matrix games and linear programming. PREREQUISITES: MATH 3241 and 4710 or its equivalent.
[1703-1]
4716. Information Structures. (3). Introduction to data structures including lists, stacks, queues, trees, and graphs. Scanning, searching, sorting and merging. Machine representation of data structures. Introduction to information storage and retrieval. PREREQUISITE: MATH 4710. [0701-1]
4717. Programming Languages. (3). Classification and structure of programming languages. Syntactic description of programming languages. Scope of declarations and the relationship to resource allocation. Recursive procedures, non-numeric languages, structured programming and language extention. PREREQUISITE: MATH 4710 or its equivalent.
[0704-1]
4718. Topics in Computer Science. (1-3). Directed individual study of selected areas of computer science. Repeatable by permission to six semester hours. PREREQUISITE: permission of instructor.
[0701-8]

## STATISTICS (MATH)

2611. Elementary Statistics. (3). Basic statistical concepts; elementary probability theory; normal curve and applications; linear, multiple, and partial correlation; statistical inference. PREREQUISITE: MATH 1100 or its equivalent. [1702-1]
2612. Statistical Methods I. (3). Binomial, hypergeometric, Poisson, multinomial and normal distributions, test of hypotheses, chi-square test, ttest, F-test, etc.; non parametric tests; correlation analysis. PREREQUISITE: 6 hours in mathematics at the level of MATH 1211 or above. [1702-1]
2613. Statistical Methods II. (3). Continuation of Statistics 4611. An introduction to analysis of variance, regression and analysis of covariance. PREREQUISITE: MATH 4611. [1702-1]
2614. Introductory Statistical Theory. (3). Distributions of functions of random variables; limiting distributions; correlation and regression; NeymanPearson Lemma; likelihood ratio tests; sufficient statistics; point estimations. PREREQUISITE: MATH 2322. [1702-1]
2615. Probability. (3). Basic concepts in probabılity; probability models; applications. PREREQUISITES: 6 hours in mathematics at the level of MATH 1211 or above. [1702-1]
2616. Topics in Statistics. (3). Recent developments in statistical methods and applications. PREREQUISITE: permission of the instructor. [1702-1]

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

## PHILOSOPHY

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

## Room 319. Clement Humanities Building

Philosophy Honors Program. This program is open to philosophy majors with an average of 3.0 or better. The student will write a senior honors thesis, the topic of which must be approved by his director prior to the semester in which he registers for PHIL 4891
NOTE: Students beginning the study of philosophy should take PHIL 1111 and PHIL 1611. Either course may be taken first. See page 57 for requirements for a major or minor in philosophy.

## E330 PHILOSOPHY (PHIL)

1111. Introduction to Philosophy. (3). An introduction to philosophy through the problems arising from man's reflection on the nature of the world and his place and conduct in it. Readings from classical and contemporary sources. [1509-1]
1112. Elementary Logic. (3). An introduction to the principles of valid reasoning with emphasis on the nature of language, the fundamentals of deductive and inductive inference, and the use of logic as a practical human instrument. [1509-1]
1113. Foundations of Western Philosophy: Classical Period. (3). Introduction to the history of philosophy from 7th century B.C. through the early Middle Ages structured around major themes that shaped the classical period with special attention to the cultural and historical settings in which they arose and to which they contributed. Readings from philosophical and nonphilosophical sources.
[1509-1]
1114. Foundations of Western Philosophy: Modern Period. (3). Introduction to the history of philosophy from the late Middle Ages through the 19th century structured around major themes that shaped the modern period, with special attention to the cultural and historical setting in which they arose and to which they contributed. Readings from philosophical and nonphilosophical sources. NOTE: While this is a continuation of PHIL 3001, it may be taken separately. [1509-1]
1115. American Philosophy. (3). An examination of the development of philosophy in America. PREREQUISITE: two courses in philosophy, or one course in philosophy and permission of instructor [1509-1]
1116. The Conflict of Ideals in Contemporary Civilization. (3). The phllosophical implications of important current issues, with attention to the philosophical presuppositions of the cultural, intellectual, political, and economic conflicts of the modern world. Readings from contemporary authors. The topics of this course will vary from semester to semester. NOTE: Students who have received credit for Philosophy 2411 may not receive credit for this course. [1509-1]
1117. The Rise of Existentialism. (3). An historical and comparative study of the different existentialist writers and their relation to literature, religion, and psychology. Readings from Kierkegaard, Nietzsche, Jaspers, Heidegger, Sartre, and Marcel PREREQUISITE: PHIL 1111 or permission of instructor.
[1509-1]
1118. Science, Technology and Human Values. (3). A course dealing with ethical problems growing out of the development of modern science and technology with discussion of such issues as the relation of science to society, dehumanization of the individual, the impact of technology on the environment, modern warfare, etc. Specific content of the course varies each semester. No prerequisite required. [1509-1]
1119. Professional Ethics. (3). An examination of the practice and codes of ethics of professionals in business, law, education and government from the
standpoint of contemporary ethical theory with attention to such issues as conflict with public good, individual and corporate responsibility, free enterprise and social justice, and the proper relation of the professions to government and vice versa. Specific content of the course varies each semester. No prerequisite required. [1509-1]
1120. Biomedical Ethics. (3). A discussion of ethical problems raised by contemporary medical practices and biological innovations from the standpoint of contemporary ethical theories with discussion of such problems as abortion, euthanasia, behavior modification, human experimentation and genetic engineering. No prerequisite required.
[1509-1]
1121. Social and Political Philosophy. (3). An examination of the major philosophical theories of man and the state with emphasis upon the concepts of society, culture, institutions, government, law, power, authority, rights, and obligation. Selected readings. PREREQUISITE: PHIL 1111 or permission of instructor [1509-1]
1122. Intermediate Logic. (3). Symbolic logic, including the propositional calculus, the lower functional calculus, and related topics. PREREQUISITE: PHIL 1611 or permission of instructor.
[1509-1]
1123. The Development of Scientific Thought. (3). An historical introduction to science and scientific thinking, with selected readings from both ancient and modern scientists and philosophers of science. PREREQUISITE: one course in philosophy or a major in the natural or mathematical sciences [1509-1]
1124. Philosophy of Science. (3). An examination of the basic features of science. A detalled analysis of the problems of scientific procedure, theory construction, and verification both in the physical and social sciences will be made. PREREQUISITE: PHIL 1611 or permission of instructor. [1509-1]
1125. God and Man. (3). Consideration of some of the major religious movements of the Western world with regard to their origin, doctrines and philosophical significance. Attention will be given to contrasting conceptions of the natural and the supernatural and the role of religion in man's understanding of himself and his society. PREREQUISITE: PHIL 1111 or permission of the instructor. [1509-1]
1126. Philosophy of Religion. (3). An analysis of the philosophical issues raised by religious experience including classical and contemporary arguments for and against the existence of God, the meaningfulness of religious language, and the concepts of faith, evil and immortality. PREREQUISITE: PHIL 1111 or permission of the instructor. [1509-1]
1127. Oriental Philosophy. (3). Philosophies of India, China, and Japan, with readings from the primary sources of Hinduism, Jainısm, Buddhism, Confucianism, Taoism, and Shintoism. PREREQUISITE: PHIL 1111 or permission of the instructor. [1509-1]
1128. The Philosophy of Art. (3). A course dealing with the role of $p$ hilosophical ideas in artistic creation and experience and their expression in painting, sculpture, music, and other art forms. PREREQUISITE: PHIL 1111 or permission of instructor.
[1509-1]
1129. Philosophy in Literature. (3). A course dealing with the expression of philosophical ideas in literature. Readings from philosophers, playwrights, novelists and poets. PREREQUISITE: PHIL 1111 or permission of the instructor. [1509-1]
1130. History of Ancient Philosophy. (3). Selected readings from primary sources, supplemented by commentary from antiquity and modern scholarship, including the Pre-Socratics, Plato, Aristotle, and the Hellenistic period NOTE: Students who have re-
ceived credit for PHIL 3211 will not be allowed cr for PHIL 4211. PREREQUISITE: PHIL 3001 or mission of instructor. [1509-1]
1131. History of Modern Philosophy. (3). A critic survey of major philosophers of the 17 th and 18 century with special attention to the metaphysic and epistemological issues that divided Rationali and Empiricism. Readings from Descartes, Spinoz Leibniz, Locke, Berkeley, Hume, and Kant. NOI Students who have received credit for PHIL 3311 w not be allowed credit for PHIL 4311. PREREQUISIT PHIL 3002 or permission of instructor [1509-1]
1132. Recent Anglo American Philosophy. (3) examination of major developments in philosophy England and the United States from 1900 to prese with reading from such philosophers as Russe Moore, Ayer, Wittgenstein, James, Dewey, Lewi Quine and other contemporary authors. PREREQ SITE: PHIL 3002 or 4311 or permission of the structor. [1509-1]
1133. Philosophy of the Nineteenth Century. Extensive reading in representative 19th centu philosophers from Fichte to Nietzsche, with spec attention given to German Idealism (especially Heg and the reaction against it (left and right w Hegelianism, Marx, Kierkegaard, Nietzsche) as as utilitarianism, Darwinism, and the rise of po vism. NOTE: Students who have received credit $f$ PHIL 3372 will not be allowed credit for PHIL 44 PREREQUISITE: PHIL 3002 or 4311 or permission instructor. [1509-1]
1134. Recent Continental Philosophy. (3). examination of primary texts of the mainstream contemporary continental thought phenomenolos (Husserl, Heigegger), structuralism (Barthes, Fo cault, Derrida), and critical social theory (Hoc heimer, Adorno. Habermas) PREREQUISITE: PH 3002 or 4311 or 4440 or permission of instruct [509-1]
1135. Ethical Theory. (3). An examination contemporary and traditional ethical theories with emphasis on the problems that any adequate mor theory must solve. Readings from classical contemporary sources PREREQUISITE: PHIL 1111 permission of the instructor. [1509-1]
1136. Philosophy of Law. (3). An introduction theories of legal reasoning and philosophical pro lems regarding the basic principles of jurisprudenc Designed for pre-law and other students pursuir law related careers. Topics covered include concept of law, legal realism, stare decisis, equi jurisprudence, and civil disobedience. PRER QUISITE: PHIL 1111 or permission of instructor
1137. Advanced Logic. (3). The nature of axiomat systems, techniques of formalization, and the logic foundations of mathematics. PREREQUISITE: PH 3621 or permission of instructor. [1509-1]
1138. Systematic Topics in Philosophy. (3). course dealing with systematic topics in philosop in the areas of epistemology, metaphysics, philo ophy of language, philosophy of mind and axiolog The area to be covered will appear in the Schedule Classes the semester it is taught. May be repeated ff a maximum of fifteen hours credit without changir an earlier grade if different areas are treate PREREQUISITE: two courses in philosophy or permi sion of instructor. [1509-1]
4891 . Senior Honors Thesis. (3). Directed readir and research culminating in a Senior Thesis. Th thesis topic is to be selected by the student with ty approval of his director before the semester student intends to take the course. Open only senior honors students majoring in philosophy.
[1509-
Graduate courses in Philosophy: For course descri" tions and further details of the graduate program, se The Bulletin of The Graduate School.

## PHYSICS

ROFESSOR CECIL G. SHUGART, Chairman

Room 216, Manning Hall

quirements for the major and minor in physics are ted on page 57.

## E350 PHYSICS (PHYS)

11. Foundations of Physics. (3). A thorough udy of certain basic principles of science, with rticular stress on the nature of physics, designed r the student who has had no previous training in rysics. Two lecture, two laboratory hours per week. edit in this course will not apply toward a major or a inor in physics, chemistry, or physical science, nor III it satisfy any part of the science requirements in e pre-professiona/ curricula. [1902-1]
12. Foundations of Physics. (3). A continuation Physics 1111. Two lecture, two laboratory hours rr week. Credit in this course will not apply to a ajor or a minor in physics, chemistry. or physical fience, nor will it satisfy any part of the sicence quirement in the pre-professional curricula.

> [1902-1]
811. General Astronomy. (3). Practical astronomy nd the solar system; topics include motions of the arth and moon, apparent motions of the stars and lanets, eclipses, time and the calendar, properties of odies in the solar system. Occasional observation eriods will be held at night. Two lecture, two boratory hours per week. [1911-1]
812. General Astronomy. (3). A continuation of hysics 1811 with emphasis on a survey of stellar nd galactic astronomy; topics include stellar disences and properties, interstellar matter, multiple tars, clusters, the milky way and other galaxies pcasional observation periods will be held at night wo lecture, two laboratory hours per week.
[1911-1]
111. General Physics. (4). The general physics ourse, covering the topics of mechanics, heat, and ound; required of all technology. premedical, preental, and pre-pharmacy students. Three lecture, wo laboratory hours per week PREREQUISITE: hATH 1212. [1902-1]
112. General Physics. (4). A contınuation of hysics 2111, covering the topics of magnetism, electricity, light, and modern physics. Three lecture, wo laboratory hours per week. PREREQUISITE HYS 2111 [1902-1]
511. Physics for Science and Engineering. (4). esigned primarily for students intending to major in hysics, chemistry, or mathematıcs; required of all tudents in the pre-engineering curriculum and ecommended for students planning to teach physics n the secondary schools. Three lecture, two aboratory hours per week. PREREQUISITE or COREZUISITE: MATH 1321. [1902-1]
2512. Physics for Science and Engineering. (4). A ontinuation of Physics 2511 Three lecture, two aboratory hours per week. PREREQUISITE: PHYS 511. [1902-1]
3000. Special Topics in Applied Physics. (3). The ourse emphasızes topics in applied areas of physics, ncluding optics, electronics, acoustics, and radıaion. Experiments and projects of special interest to he student will constitute a major portion of the course. Three lecture hours or the equivalent aboratory hours per week. This course may not be ounted toward a major in physics. [1902-8]
3010. Introduction to Modern Physics. (4). A ecture-laboratory course covering the basic priniples of special relativity, quantum mechanics, tomic physics, and selected topics in solid state, luclear, and molecular physics. Three lecture, three aboratory hours per week. [1902-1]
3020. Biophysics. (3). An introduction of selected opics from biophysics with emphasis on the understanding of basic physical principles and their elation to biology and medicine. Three lecture hours
or the equivalent laboratory hours per week. The course is designed especially for life science students and may not be counted toward a major in physics.
[0415-1]
3111. Mechanics. (3). An advanced course in classical mechanics covering statistics, and dynamics of partıcles, rigid bodies, fluid flow, work, energy, momentum, force fields, and harmonic motion. Recommended as good preparation for advanced physics course. Three lecture hours per week [1902-1]
3112. Mechanics. (3). A contınuation of Physics 3111. Three lecture hours per week PREREQUISITE. PHYS 3111. [1902-1]
3211. Electricity and Magnetism. (3). A study of electromagnetıc fields and waves, including such topics as dielectrics, induced electromotive force, magnetic energy, magnetıc materials, Maxwell's equations, and reflection and refraction. Three lecture hours per week. [1902-1]
3212. Electricity and Magnetism. (3). A contınuation of Physics 3211 . Three lecture hours per week. PREREQUISITE: PHYS 3211 [1902-1]
3510. Electronics. (4). Theory and applicatıons of electronic devices such as vacuum and gas-filled tubes, photoelectric cells, and semi-conductors, with partıcular emphasis on basic electronıc circuitry and laboratory instrumentation. Three lecture three laboratory hours per week. [1902-1]
4010. Advanced Experimental Physics. (2). A course designed to teach the use of the more advanced laboratory equipment and instruments, with emphasis on effective planning and performance of experiments, the treatment and interpretation of data, and the use of scientific literature and library facilities Six laboratory hours per week
[1902-8]
4011. Advanced Experimental Physics. (2). A continuation of Physics 4010. Six laboratory hours per week. [1902-8]
4021. Applied Radiation Physics. (3). A course in applied radiation and radıoactivity. Topics covered will include types of radiation, radiation measurement, interaction with matter, and biological effects. Radıation safety aspects will be emphasized Three lecture hours per week. PREREQUISITE: PHYS 2112 or 2512 and MATH 1321. [1902-1]
4022. Applied Radiation Physics. (3). A contınuaton of Physics 4021. Three lecture hours per week. PREREQUISITE: PHYS 4021. [1902-1]
4030. Radiation Physics Laboratory. (3). A laboratory course in radiation and radioactivity. Experiments will emphasize the measurement and characterization of radiation and radıactive materials Four laboratory hours per week. PREREQUISITE: PHYS 4021 [1902-1]
4051. Astrophysics. (3). Application of radıation laws to the interpretation of stellar structure Introduction to radiative transfer in atmospheres. The spectral and luminosity classification of stars. Stellar populations and evolution. Three lecture hours per week. [1912-1]
4110. Nuclear Physics. (3). Properties of atomic nucleı, radioactive transitions, alpha, beta, and gamma decay. Binding energy, nuclear forces and nuclear models. Three lecture hours per week.
[1904-1]
4211. Optics. (4). After a brief review of geometrical optics, the course concentrates on wave optics. Topics include polarization phenomena, interference, diffraction, coherence, holography. and scattering. Three lecture, three laboratory hours per week.

$$
[1902-1]
$$

4220. Reactor Physics. (3). A study of the theory and operation of nuclear reactors as an energy source for large scale power operation, including the fundamental concepts of physics applied to the production and control of nuclear chain reactions. Three lecture hours per week. PREREQUISITES

PHYS 2111 and 2112 or the equivalent [1904-1] 4410. Introduction to Quantum Theory. (3). Ex perimental basis of quantum theory; development of the Schrodinger equation and its solution of simple systems: selected applicatıons in atomic and molecular structure. Three lecture hours per week
[1902-1]
4510. Thermodynamics. (3). A mathematıcal treatment of thermodynamics, including such topics as work, energy, enthalpy, entropy, reversible and irreversible processes, equilibria, specific heats, and phase transitions. Three lecture hours per week
[1902-1]
4610. Solid State Physics. (3). Consideration of such topics as lattice vibrations, specific heats, electrical and thermal conductors in solids, magnetism. Three lecture hours per week. [1902-1]
Graduate courses in Physics: For course descriptions and further detalls of the graduate program, see The Bulletin of The Graduate School

## POLITICAL SCIENCE

## PROFESSOR H. PIERRE SECHER, Charman

## Room 427, Clement Humanntes Building

Requirements for the major and minor in political science are listed on page 57. For information concerning the pre-law curriculum, see page 53
Important Note. The prerequisite for all 3000 and 4000 level courses is enther funior standing or the permission of the instructor.

Honors Program: The department offers an honors program to qualified majors who choose to pursue a more sophisticated knowledge of the discipline, a more rigorous level of analysis, and a deeper understanding of politics.
Admission. Students who have completed about 55 hours of course work (with at least 9 hours in Political Science) and have a minımum over-all grade poınt average of 30 (with a minimum in Political Science of 3.25), or can present equivalent qualifications, are invited to apply for admission to the program.
Program Requirements. The program requires 18 hours of honors course work, 12 or more of which must be upper-division Political Science courses, and minimum final grade point averages of 3.00 overall, 3.25 in Political Science, and 3.25 in honors coursework.
Graduation. Upon graduation, those successfully completing the program will receive on their diplomas and transcripts the special distinction "With Honors in Political Science." Details of the program are available in the Political Science Office.

## E370 POLITICAL SCIENCE (POLS)

1101. Introduction to Political Science. (3). The study of how people distribute power, confer authority, resolve conflict, and pursue goals within a political system [2207-1]
1102. National Government. (3). The origins of our system of government, the framing of the Constitution, the principles underlying constitutional government, citizenship, civil rights, political institutions, the national executive, the congressional organization and functions, and the judicial process. [2207-1] 2301. Comparative Politics. (3). An introduction to the comparative study of politics with application to selected countries. [2207-1]
1103. International Politics. (3). An analysis of the relatıonships among nation-states, rangıng from war to cooperation, with emphasis on both domestic and external determinants of state action. [2210-7]
1104. Political Inquiry. (3). This course is designed to acquaint the student with the research process in political science. It emphasizes the skills common to all subfields of political science-familiarity with
sources of data and documents, research design and general analytic skills. [2207-1]
1105. State and Local Governments. (3). The role of the state governments in the Federal System, political institutions, elections; the organization, functions, and problems of state government, with special emphasis on Tennessee government.
1106. Introduction to the Study of Public Policy. (3). An introduction to the public policy formulation process and some of the major substantive areas of policy concern in America. Special emphasis is on a framework for identifying and analyzing the substance of public problems, policy making, and policy administratıon. [2207-1]
1107. Political Parties. (3). An analysis of the political party as a process of government, with emphasis upon party organization, activities, nominatıng and campargn methods, voter participation, and the two-party system. [2207-1]
1108. Urban Politics. (3). The functions and role of government in urban America in the context of urban politics and the social, economic, and governmental problems of cities and suburbs. [2207-1]
1109. Western European Government and Politics. (3). A comparative study of selected political systems of Western European States. [2207-1]
1110. Latin American Government and Politics. (3). The forms of organization, the functions and operations of government in Latin America. Emphasis will be placed on the development of political institutions and present day trends. [2207-1]
1111. Government and Politics of South Asia. (3). A study of the political institutions and governmental processes of selected South Asian states. [2207-1]
1112. Government and Politics of Sub-Sahara Africa. (3). A study of the political and governmental institutions and process of selected African states, emphasizıng sub-Sahara Africa. [2207-1]
1113. Government and Politics of North Africa and Middle East. (3). An analysis of the organization and functions of governments in an area dominated by the tenets of Islam, including an examination of the origin and development of the Arab-Israeli conflict.
[2207-1]
1114. Western Political Thought to 1600. (3). The history, formation, and development of political thought of the West, from the political philosophers of ancient Greece to the seventeenth century [2207-1]
1115. Western Political Thought Since 1600. (3). The history, formation, and development of western political thought from the seventeenth century to the present [2207-1]
1116. Introduction to Law and Jurisprudence. (3). A study of the sources, functions, and processes of law. [2207-1]
1117. International Organization. (3). An examınation of the origins, structure, functions, and evolution of selected international organizations. The United Nations and/or regional and functional organizations serve as basic references. [2210-1]
1118. American Foreign Policy Process. (3). An analysis of American foreign policy, with emphasis on the factors involved in developing and implementıng policy. [2207-1]
1119. Public Administration. (3). The concepts and practices of organization and management in the executive departments, national, state, and local; an analysis of bureaucracy, admınistrative theory, budgeting, personnel, and administrative leadership.
[2102-1]
1120. Techniques of Political Analysis. (3). An introduction to the analysis of quantitative data used to test hypotheses in the fields of political science and public administration, including both parametric and nonparametric techniques. Particular attention is given to alternative measures of association and significance, regression, factor analysis, path analysis, and casual meeting. [2207-1]
1121. Political Behavior. (3). An introduction to the contributions of the behavioral sciences to an understanding of the political system. Political behavior is examined as manifested in the formation of attitudes, public opinion, group organization, and political power [2207-1]
1122. Political Socialization. (3). A study of the process whereby political attitudes and values are passed from one generation to the next and altered in transmission. Includes the quantitative measurement of political attitudes. [2207-1]
1123. Constitutional Law: National Powers. (3). An analysis of the relationships and controls of the three branches and the nature of the division of power between the nation and the states, with emphasis on the role of the Supreme Court as the arbiter in the constitutional system. [2207-1]
1124. Constitutional Law: Civil Liberties. (3). An examination of the judicial interpretation of political and civil rights with emphasis on the period since 1945. [2207-1]
1125. Public Policy. (3). The analysis of selected public policy issues and politics in the policy making process [2207-1]
1126. The Executive Process. (3). A detailed study of the role of the executive in American politics.
[2207-1]
1127. Constitutional Policies and The Judicial Process. (3). An examination of the limits of the political resources and power of the judiciary. Primary attention is directed toward the extent to which the United States Supreme Court is able to obtain compliance with its decisions on highly politicized and controversial questions of public policy. To that end, it investigates the Court in conflict with other branches of the national government, the state governments, and public opinion. [2207-1]
1128. Interest Groups in the American Political System. (3). An investigation of the role and impact of selected interest groups within the American political system. Group theory, tactics, and group relationships with various governmental institutions will also be discussed. [2207-1]
1129. The Legislative Process. (3). The origins, organization, functions, and activities of the modern legislature; making laws, supervising the administration, representing and informing people. [2207-1]
1130. Public Opinion and Politics. (3). An investigation of the formation, measurement and content of public opinion about political issues. Class will include a public opinion poll of the local community. [2207-1]
1131. Urban Administration. (3). Examinatıon of politics, administration, and public policy in an urban context. Focus is on the administrative aspects of selected governmental policy-making processes; Interrelationships of governments at various levels; urban challenges facing modern public administrators. [2102-1]
1132. Urban Problems. (3). A study of selected problems in urban administration, politics, and policies. [2214-1]
1133. Legislative Internship. (3-12). Supervised internship working with the Tennessee General Assembly or other legislative bodies on current legislative programs. Seminar sessions are held to discuss and analyze the problems with which the interns are working. May be repeated for a total of 12 credits. PREREQUISITE: permission of the department. [2207-8]
1134. Administrative Internship. (3-12). Supervised internship working with administrative branches of national, state, or local governments. Seminar sessions are held to discuss and analyze the problems with which the interns are working. May be repeated for a total of 12 credits. PREREQUISITE: permission of the department. [2207-8]
1135. The Problems of Developing Countries. (3). An introduction to the comparative study of the problems of political modernization in the developing
countries of the Third World [2207-1]
1136. Soviet Government and Politics. 13 Organization and functions of the authoritarian state with emphasis on the role of the Communist Part and ideology [2207-1]
1137. Contemporary Latin American Politics. (3) A study of contemporary problems in Latın America politics and inter-American relations. [2207-1]
1138. Government and Politics of Communis China. (3). A study of the institutions of governmen the political process, political elites, political grou and political socialızation in Communist Chına
[2207-才
1139. Comparative Political Parties. (3). A com parative study of political parties and party systems, selected countries [2207-1]
1140. Comparative Political Elites. (3). A com parative study of the role of political elites in selecte political systems. [2207-1]
1141. Comparative Public Policy. (3). The com parative study of the formation and implementatio of major substantive areas of public policy in selecte countries. [2207-1]
1142. Research and Studies Abroad. (1-6). Supe vised field research and studies in selected foreig countries. May be repeated up to six hours [2207-4
1143. Modern Political Ideologies. (3). A study major ideologies affectıng modern politics. Include ideologies of democracy, communism, and facism a well as capitalism and socialism, racism, natonalism, and ideologies of the developing "third" and "fourth world" nations. [2207-1]
1144. Contemporary Protest Thought. (3). Politic theories of recent and contemporary protest. Th subject matter varies according to what current| excites political protest, but recent topics hav included the political elements of black protest, th new left, the new right, women's liberation, ecolos and energy, and consumer's movements. [2207-1
1145. American Political Thought. (3). An analys of political thought in the United States from th colonial to the present time, with emphasis placedo the relation between political thought and politic institutions and practices. [2207-1]
1146. Black Political Thought. (3). An analytic survey of black political thought from the coloniperiod to the present. Emphasis is placed upon recer and contemporary thought. [2207-1]
1147. Contemporary Problems in Internation Politics. (3). A study of contemporary problems international relations with emphasis on the maf powers [2210-1]
1148. Soviet Foreign Policy. (3). Basic concepts Soviet foreign policy; development and technique present patterns of Soviet relations with key nation major problems in future relationships. [2207-1]
1149. Inter-American Relations. (3). Study political relations among the nations of Latin Americ and with the United States. Regional organization and relations with Cuba are given special attentior
[2210-1
1150. International Law. (3). An analysis of th nature, scope, duties, rights, and evolutionary trenc of internatıonal law. [2210-1]
1151. Comparative Communist Systems. (3). cross-national comparison of the adaptation of rulin and non-ruling communist parties to differer political environments. Includes examination inter-party and intra-block relations. [2207-1]
1152. Problems of American Foreign Policy. (3). study of American foreign policy problems taken fror specific areas or issues of policy. [2207-1]
1153. Problems of European Politics. (3). A stud of selected political problems of European states.
[2207-
1154. Theories and Concepts in Internation Politics. (3). A survey of theoretical approaches the study of international politics. Special attention
given to methodology, models, and international political simulation. [2207-1]
1155. Comparative Foreign Policies. (3). A comparison of the foreign policies of major actors (nationstates, groupings such as the oil-producing nations of OPEC, and other entities) in world politics. [2207-1]
1156. Public Finance Administration. (3). Detailed study of administrative and political problems of fiscal policy, the budgetary process, and fiscal controls.
[2102-1]
1157. Public Personnel Administration. (3). The study of policies, methods and techniques utilized in public personnel administration. Special attention is given to problems reflecting contemporary demands upon personnel organizations. The capacity to analyze problems, select the most effective means of dealing with them, and plan appropriate courses of action is developed through case example. [2102-1]
1158. Problems of Public Administration. (3). An investigation of selected problems in the public administration process, with emphasis upon contemporary developments. [2102-1]
4611 . Administrative Law. (3). Study of the role and nature of adminıstrative law, including procedural requirements and judicial review of adminstrative actions and liability of the government for torts and breach of contract [2207-1]
1159. Intergovernmental Relations in the United States. (3). Examination of the interdependencies and relations between governmental structures and organizations in the American system, with special emphasis on problems of conflict and coordination.
[2207-1]
1160. Senior Seminar in Political Science. (3). A review of professional literature generally or in a particular area of political science combined with significant research on special political problems. PREREOUISITES: senior standing and political science major [2207-1]
1161. Independent Study. (3). Independent investigation of a research problem or directed reading in a selected area of political science under the tutorial supervision of a member of the political science faculty. PREREOUISITE: permission of the chaırman. [2207-8]
1162. Special Topics in Public Issues. (3-6). A study of selected topics of current significance in public issues May be repeated for a maximum of 6 hours credit. [2207-1]

Graduate Courses in Political Sclence: For course descriptions and further detals of the graduate program, see The Bulletin of The Graduate School

## PSYCHOLOGY <br> ASSOCIATE PROFESSOR WILLIAM O. DWYER and

PROFESSOR MICHAEL B. LUPFER, Acting Co-Chairmen
Room 202, Psychology Building
Requirements for the major and minor in psychology are listed on page 57.

## Psychology Honors Program

Psychology majors who have completed at least 55 hours of course work may apply for admission to the Psychology Honors Program provided they meet these requirements: (a) an overall grade-point average of 3.00 or better, (b) completion of PSYC 1101, 1102, 2301 and 2302 and (c) a grade-point average of 3.25 or better in all psychology courses taken. Students in the program participate in an Honors Seminar (PSYC 3600) during their junior year and write an Honors Thesis (PSYC 4600) during their senior year. 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.

IMPORTANT NOTE: PSYC 1101 or 1102 is prerequisite for all other courses in the Department of Psychology; both 1101 and 1102 are required of Psychology majors.

## E390 PSYCHOLOGY (PSYC)

1101. General Psychology I. (3). An introduction to the social aspects of psychology as a science of behavior. Areas of study include personality, abnormal behavior, psychotherapy, social and developmental psychology, intelligence, and applied psychology [2001-1]
1102. General Psychology II. (3). An introduction to the biological aspects of psychology as a science of behavior. Areas of study include learning, sensation and perception, physiological and comparative psychology, and psycho-pharmacology. [2001-1]
1103. Psychological Statistics. (3). An introduction to the use of statistics in psychology, with emphasis on elementary theory of measurement and computation. Topics covered include measures of central tendency and variability, tests of significance, correlation procedures, and an introduction to multivariate analyses, analysis of variance, and nonparametric procedures. [2007-1]
1104. Experimental Techniques in Psychology. (4). An introduction to methods and techniques of observation and research on psychological topics, with emphasis on controlled laboratory experiments in such areas as learning, motivation, psychophysics, sensation, perception, and concept formation. Individual laboratory experience stressed. Three lecture, two laboratory hours per week. PREREOUISITE PSYC 2301 [2002-1]
1105. Psychology of Personality. (3). The development, organization, and assessment of the normal person is examined, with an introduction to theories of personality [2001-1]
1106. Abnormal Psychology. (3). A survey of basic concepts of psychopathology with emphasis on the development of behavior deviations, description of various neurotic and psychotic reactions, and an introduction to methods of psychotherapy [2003-1]
1107. Developmental Psychology. (3). Patterns of intellectual and behavioral development from birth to maturity. Psychological effects of genetic, organic, and environmental influences as the individual matures. [2009-1]
1108. Industrial and Organizational Psychology. (3). An examination of the 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]
1109. Social Psychology. (3). An analysis of the behavior and experience of individuals in group settıngs, examıning such topics as leadership, social influence, and inter-group and intragroup relations.
[2005-1]
1110. Thinking and Cognitive Processes. (3). An analysis of the development and modification of thinking, reasoning, conceptualızatıon, language and symbolic activity, and other mediational processes in the individual. [2001-1]
1111. Psychological Principles in Law Enforcement. (3). A survey of the application of psychological principles to law enforcement The course covers law enforcement both at the institutional level and at the level of the individual police officer dealing with the public. [2001-1]
1112. Honors Seminar in Psychology. (3). A seminar reserved for students entering the Honors Program in Psychology. This seminar introduces the student to the psychological research activitues
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 enroll, after receiving permission from the Director of Honors in Psychology. [2001-1]
1113. History of Psychology. (3). A comprehensive survey and critical analysis of the philosophical and scientific antecedents of contemporary psychology. PREREQUISITE: 10 upper-division hours in psychology [2001-1]
1114. Experimental Psychology: Physiological Processes. (4). A study of the physiological functions involved in behavior and experience. A survey of the physiology of the sense organs, nervous systems, and response mechanisms. NOTE: It is strongly recommended that PSYC 2301 and 2302 be completed before enrolling in this course. Three lecture, two laboratory hours per week. [2002-1]
1115. Experimental Psychology: Comparative Behavior. (4). Synthesis of the ethological and comparative approaches to the study of animal behavior Covers such topics as behavior genetics, species specific behaviors, etc. Three lecture, two laboratory hours per week. NOTE: It is strongly recommended that PSYC 2301 and 2302 be completed before enrolling in this course. [2002-1]
1116. Experimental Psychology: Sensation and Perception. (4). Detailed survey of the major senses with emphasis on methods of investigation and behavioral applications. Study of the perceptual processes and influences of learning and motivation on perception. Three lecture, two laboratory hours per week. NOTE It is strongly recommended that PSYC 2301 and 2302 be completed before enrolling in this course [2002-1]
1117. Experimental Psychology: Learning. (4). A survey and critical analysis of the theories, concepts, and principles of the acquisition and retention of behavior. Three lecture, two laboratory hours per week. NOTE: It is strongly recommended that PSYC 2301 and 2302 be completed before enrolling in this course. [2002-1]
1118. Psychological Testing. (3). Essentials of testing, emphasizing the concepts of reliability and valıdity; limıtatıons of psychologıcal tests; familiarızation with standardized interests, aptitude, achievement, intelligence and personality tests; practical experience with some "paper-and-pencil" group tests; questionnaire construction and administration. PREREOUISITES PSYC 2301 and 3101. [2006-1]
1119. Introduction to Clinical Psychology. (3). Survey of the history of clinical psychology; services provided by clinical psychologısts; different strategies of diagnosis and therapy; ethical considerations of clinical psychologists Course also includes introducion to interviewing techniques and practice in the use of these techniques, as well as field trips to institutions utilizing clinical psychologists. PRERE. OUISITES: PSYC 3101 and 3102. [2003-1]
1120. Behavior Modification. (3). Instruction in the techniques of behavior modification, including observational procedures, methods of remediation, data recording and report writing PREREOUISITES: PSYC 3102 and 4204 [2003-1]
1121. Senior Seminar In Psychology. (3). Seminar discussion of current theoretical issues and experimental studies in psychology; open to outstanding advanced students by invitation of the faculty.
[2001-1]
1122. Senior Thesis in Psychology. (3). Supervised individual research on a selected topic in contemporary psychology; open to outstanding advanced students by invitation of the faculty. [2001-8]
1123. Special Problems in Psychology. (1-3). A course in which the student, under faculty supervision, may (a) read intensively in a specialized area, ib) conduct psychological research and/or (c) obtain field experience in community institutions where
psychologıcal prıncıples are applied Thıs course may be repeated for up to 6 hours credit. PREREQUISITE: permission of the department chairman. [2001-8]
1124. Honors Thesis in Psychology. (1-6). Supervised individual 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 project, up to a maximum of six credit hours. PREREQUISITE: good standing in the Honors Program in Psychology
[2001-8]

## SOCIOLOGY AND SOCIALWORK

## PROFESSOR JERRY B. MICHEL, Chairman

## Room 231. Clement Building

Requirements for the majors and minors in sociology and social work are listed on page 57
IMPORTANT NOTE: Sociology 1111 is a prerequisite for all other courses in sociology 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, analysis, and discussion of current social problems. [2208-1]
1113. Social Statistics. (3). The applicatıon 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 the relationships between two variables involving sample data. Use of packaged statistical computer programs for single and two variable analysis. [2208-1]
1114. Methods of Social Research. (3). Overview of the process of social research: selection and formulation of the problem, design of the research, methods of investigation, analysis and interpretation of data, and report preparation. Emphasis on data collection techniques. PREREQUISITE: SOCI 3311
[2208-1]
1115. Social Inequality. (3). The 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]
1116. Social and Ethnic Minorities. (3). (Same as Anthropology 3422.). A comparative study of social and ethnic minorities in the United States and elsewhere, with a focus on differences in cultural backgrounds, social relationships with the larger society; social, educational, and legal problems; factors contributing to the satisfactory and unsatisfactory adjustments of minorities. [2208-1]
1117. Sociology of Sex Roles. (3). Traditional conceptions of masculinity and femininity and modifications of these resultıng from economic, demographic and cultural changes. Socialization for masculine and feminine roles and variations in these roles throughout the life cycle. Class, race, occupational and other institutional differences in sex roles. [2208-1]
1118. Sociology of Deviant Behavior. (3). Contemporary theories of deviant behavior; the major types of deviation in American society; the relationship of deviant behavior and social disorganization to social change. [2208-1]
1119. Criminology. (3). Nature and significance of criminal behavior; statistics of criminal behavior and crimınals; trends in the social reactions to criminal behavior and criminals. Examination of the development and nature of theories of criminal behavior. Current programs for the treatment and prevention of criminal behavior. [2209-1]
1120. Population. (3). Population theories and policies; their definition and history. Trends in population growth; methods of population analysis,
and trends in fertility and mortality. Emphasis on fertility, mortality, sex and age composition, and migration and their influences on population change. [2208-1]
1121. Introduction to Social Psychology. (3). Basic theory and research dealing with the study of human behavior in social situations with particular emphasis on communication processes, socialization, social roles, social self, and interaction in group contexts.
[2005-1]
1122. Collective Behavior. (3). Emergence of collective behavior, spontaneous collectivities, social movements, social consequences of restrictive collective behavior. [2208-1]
1123. Sociology of Small Groups. (3). Study of the dynamics of group formation from the sociological and social psychological perspectives. Focal areas are the emergence of group norms, values, and status/role formation, the dynamics of change within the group, and the development of leadership patterns within a confined boundary system
[2208-1]
1124. Sociology of Formal Organizations. (3). Analysis of formal organizations in society and their effects on individual and group behavior. Special emphasis on the nature of bureaucracy-in business, educational, political, welfare, military, religious, and other organizations. [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 social institutions, mate selection. marital adjustments; parental and family disorganization. Contemporary changes and conflicts in marriage and the family. [2208-1]
1127. Industrial Sociology. (3). Social characteristics of business and industrial organizations; role of the consultant in personnel organization and human relations programs. [2208-1]
1128. Sociology of Religion. (3). The role of religion in social systems; reciprocal influence of religion and modern society; sociological analysis of religious organizations and the roles which comprise them; social correlates of religious opinions and attitudes.
[2208-1]
1129. Political Sociology. (3). A sociological examination of political institutions: cultural and social factors associated with political structure, political attitudes, and political behavior; political decision-making as a sociological process; a comparative and methodological study of social movements and political parties. [2208-1]
1130. Mexican Society and Culture. (3). (Same as Anthropology 3930). A study of Mexico's social development, population, contemporary institutions and cultural patterns, the family, the community and urban society, minority group relations, and social problems. [2208-1]
1131. Social Change. (3). A sociological analysis of the theory, nature, meaning, and consequences of social change. [2208-1]
1132. Rise of Sociological Theory. (3). A survey of the development of sociological theory with emphasis on the period from Comte to the "Chicago School." [2208-1]
1133. Contemporary Sociological Theory. (3). European contributions, American developments and recent trends in sociological theory. [2208-1]
1134. Intermediate Social Statistics. (3). Multivariate analysis of social data. Use of computer programs for data management and statistical analysis. PREREQUISITES: SOCI 3311,3322 , or their equivalents, or permission of the instructor [2208-1] 4340. Field Problems in Social Research. (3). The application of sociological knowledge and methodological skill to research projects in the
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]
1135. Race Relations. (3). A study of ethnic organization and interrelations with specific emphasis on the status of the Negro in American society, and the process of integration. Emphasis on theoretical explanations of prejudice. [2208-1]
1136. Sociology of Poverty. (3). Sociological and social psychological perspectives on poverty in industrialized societies. Various explanations of the personality, cognitive, and behavioral correlates of poverty [2208-1]
1137. Juvenile Delinquency. (3). Trends of juvenile delinquency; the development of case study techniques and diagnosis of juvenile delinquency; comparative analysis of various theoretical approaches
[2208-1]
1138. Human Ecology. (3). Spatial structure and land use patterns of urban, rural, and fringe areas; city growth, its spatial and communicative extension into suburban and rural areas, and its impact on the economy, values, and social organization of communities. [2208-1]
1139. Urban Society. (3). A study of urban society ts basic historical and modern development, power structures, social institutions and relationships; the future of the city. Problems of urbanization, such as slums, urban sprawl and transportation. Processes of change in the urban environment. [2214-1]
1140. Urban Research. (3). (Same as Urban Studies 4632). Extensive exploration of research methods that have proved useful in the study of urban social phenomena; the application, limitations, and advantages of various research approaches. [2214-1]
1141. Public Opinion and Propaganda. (3). The nature and development of public opınıon with particular consideration of the roles, both actual and potential, of communication and influence. [2208-1]
1142. 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]
1143. Sociology of Adolescence. (3). Study of the social aspects of adolescence. Emphasis on socialization into youthhood, the changing nature of adolescence in industrial societies, the conflict of institutional demands with peer group membership, self-identity problems, the values of youth subcultures and contracultures. [2208-1]
1144. Sociology of Occupations and Professions (3). Sociological analysis of the division of labor, occupational groupings, career patterns, and professional associations in modern American society; the meaning of work. [2208-1]
1145. Medical Sociology. (3). A sociological analysis of the definition and distribution of physical illness and society's response to its occurrence, focusing on the roles of patient, physician and ancillary professionals within contemporary medical settings, particularly the modern hospital. [2208-1]
1146. Sociology of Mental Illness. (3). Sociological analysis of the definition and distribution of menta illness and society's response to its occurrence focusing on the social organizational provision for professional and patient roles within contemporary therapeutic settings. [2208-1]
1147. Special Topics in Sociology. (3). Selected topics in special areas of sociology not otherwise included in the curriculum. NOTE: Course may be repeated for a maximum of 6 hours credit. [2208-1]
1148. Directed Individual Study. (1-6). Individually directed advanced reading and/or research in special areas of interest. NOTE: Course may be repeated for a maximum of 6 hours credit. PREREQUISITE: permis sion of department chairman. [2208-8]

## ARTS AND SCIENCES

4922. Senior Seminar in Sociology. (3). Seminar discussion of current theoretical issues and research in sociology Open to senior sociology majors and to other advanced students by invitation [2208-1]
Graduate Courses in Sociology: For course descrip tion and further details of the graduate program, see The Bulletin of The Graduate School.

## E470 SOCIAL WORK (SWRK)

2911. Introduction to Social Welfare. (3). History and philosophy of social welfare in the United States, purposes and obstacles to social improvement, functions of public and private social service programs, qualifications and opportunities for social work practice. [2104-1]
2912. Social Work Fields of Service. (3). Survey of the field of social work within the social welfare institution; social work as a profession; values and ethics; overview of social work intervention at individual, family, group. community levels; roles of social workers in human service agencies. PREREQUISITE: SWRK 2911. [2104-1]
2913. Human Development and Social Interaction. (3). A survey of human needs from birth through old age, with a focus on role functions and role relationships throughout life Social and cultural variables and the impact of critical life experiences will be explored. PREREQUISITE SWRK 2911.
[2104-1]
2914. Models of Social Intervention. I. (3). Theo-
ries and concepts in social work, including an introduction to case work, group work and community organization. Emphasis on the case work model and on the implications of intervention. PREREQUISITES: SWRK 2911 and 3902 and permission of Director, Division of Social Work. [2104-1]
2915. Models of Social Intervention 11. (3). A continuation of SWRK 3903 emphasizing problemsolving models, assessment, interventive planning, use of community resources, and functions of social workers; extensive case analysis is undertaken. PREREQUISITE: SWRK 3903. [2104-1]
2916. Interviewing in the Social Services. (3). Methods, techniques and skills in relationship building, types and styles of interviews; interaction patterns between client and social worker; observational and experiential activities, role playing and videotape. PREREQUISITE: SWRK 3903. [2104-1]
2917. Field Instruction in Social Work. (3). Educationally focused, practice-oriented field work in a wide range of social and human service agencies, both established and newly emerging, for individual, group, and community needs; 12-16 hours weekly. May be repeated for a maximum of six hours. PREREQUISITES: SWRK 3903 and permission of Director, Division of Social Work. [2104-8]
2918. Topics in Specialized Social Services. (3). Selected topics in social needs and services; two to four areas related to student interest and emerging service needs will be examined. Directed by staff, with lectures from the campus and social service
community. PREREQUISITE: Social Work major with senior status, or permission of instructor. [2104-1]
2919. Senior Seminar in Social Work. (3). A seminar in social change, with particular reference to the social worker and the social agency, principles of social change, the sociology of social action, and an examınation of social work delivery systems as bureaucracies PREREQUISITE: senior majors or permission of instructor. [2104-1]
2920. Social Group Work and Community Organization. (3). Theory and application of group dynamics concepts as applied to groups, neighborhoods. communities; the individual in the group, group and community structures and functioning; roles of the social worker in these settings.
[2104-1]
2921. Directed Individual Study. (1-4). Individuals directed advanced reading, field study and/or research in special areas of social work, not otherwise provided in the curriculum. NOTE: No more than four hours may be taken in any one semester. May be repeated for a maxımum of 6 semester hours credit. PREREQUISITE: Social Work major and permission of Director, Division of Social Work
[2104-8]
2922. Child Welfare Policy and Services. (3) Historic overview and contemporary application of child welfare policy; problems in policy development, contemporary American child welfare services in both public and private domains. PREREQUISITE: SWRK 3903. [2104-1]

# THE COLLEGE OF BUSINESS ADMINISTRATION 

## 1500 BUSINESS ADMINISTRATION (BA)

NOTE: 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.
3900. Study and Travel in Business and Economics. (3). Travel to important areas of the world and conduct study of economic and business systems of selected countries under the direction of the faculty of the College of Business Administration.
[2204-1]
4000. Internship in International Business. (1-6). A study of the practical operations of international business. Students will be placed for a 1-8 month period with one of the cooperating business firms operating in the fields of international banking and finance, transportation, management, marketing, or accounting. Academic credit will be granted upon certification of satisfactory performance by the cooperatıng business firm and upon the acceptance by the faculty of a written research report by the student [0501-8]
4900. Practicum in Research. (1-3). A variablecredit course designed to expose the student to actual problem-solving research activities in business and economics. Each student is assigned to a project that is either being conducted currently by a faculty member or one that is developed under the supervision of a faculty member. Whenever possible, the project will be within the student's major field of study. PREREQUISITE: senior status. [0501-8]
4990. Junior Achievement Advising Practicum. (3). A three-hour credit course designed for a twosemester duration. Professional organizations approved by The College of Business Admınistration and other groups may form advising teams under the direction of a faculty advisor for the purpose of working with Junior Achievement. Begins fall semester. Students register for credit at the beginning of the spring semester. PREREQUISITE upper division status and approval of Junior Achievement Program advisor. [0501-8]

## ACCOUNTANCY

PROFESSOR JAMES THOMAS THOMPSON, Charman

Room 200A, The College of Business Administration Building
Requirements for the major and minor in accountan cy are listed on page 62
NOTE: 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.

## 1510 ACCOUNTANCY (ACCT)

2010. Fundamentals of Accounting I. (3). Study of the collection and analysis of financial transactions and communicating the information they contain with periodic general purpose financial statements using double-entry accrued accounting techniques. The use of accounting procedures to routınize and control repetitive activities. Theory is stressed with minimum necessary attention to clerical operations. [0502-1]
2011. Fundamentals of Accounting II. (3). Continuation of Accounting I plus a 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). The working of a practice set involving current accounting practice. PREREOUISITE: ACCT 2010. [0502-1]
2013. Managerial Accounting. (3). The study of
accountıng as it relates to managerial control. Topics studied include financial statement analysis including price level changes, cost controls, budgetıng, quantitative accounting techniques for decision making in management. Both semesters. PREREQUISITE: ACCT 2020. [0502-1]
2014. Intermediate Accounting I. (3). Review of accounting process and financial statements; cash and cash flow; receivables; current liabilities; investments; intangible assets PREREOUISITES: ACCT 2020 and 2720. [0502-1]
2015. Intermediate 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. PREREOUISITE: ACCT 2720 and 3110. [0502-1]
2016. Cost Accounting. (3). A study of cost systems, including job order, process, and standard, as management information systems for planning and control. The allocation of indirect costs, preparation of variable budgets, and determination of standard cost variances and their meaning. PREREQUISITE: ACCT 2020. [0502-1]
2017. Federal Income Tax I. (3). Regulations pertaining to individuals and partnerships; installment and deferred payment sales; introduction to corporate taxation. PREREQUISITE: ACCT 2720 and 3110. [0502-1]
2018. Advanced Accounting. (3). Partnerships, consignments, installment sales, statement of affarrs, receiver's accounts, statement of realization and liquidation, business combinations and consolidated financial statements, branch accounting, fund accounting, international accounting. PREFEQUISITE: ACCT 3120 [0502-1]
2019. Auditing. (3). Ethics in accounting practices, internal control, auditing standards and procedures, programs of audit of various accounts, construction and indexing of various papers, reports to clients, a practice audit carried out PREREQUISITES: ACCT 3120, 3310. [0502-1]
2020. International Accounting. (3). A comparative study of international accounting and auditing practices: variations in accounting thought, reporting standards; taxation in international operations; professional and ethical standards; effect of government regulation on accounting practice. PREREQUISITE ACCT 2020. [0502-1]
2021. Accounting Systems. (3). Problems involved in designing accounting systems for various types of businesses, including processing accounting data by electronic computer. PREREQUISITES: ACCT 3120, 3310, and MGMT 2750. [0502-1]
2022. Federal Income Tax II. (3). Laws and regulations for corporations, estates and fiduciaries. Includes a project on tax research. PREREQUISITE: ACCT 3510. [0502-1]
2023. Governmental Accounting. (3). Accounting theory and practice applicable to federal, state, and local government and to non-profit institutions; budgetary control; control, classification, and use of funds; financial statements and reports PREREQUISITE: ACCT 2020. [0502-1]
4610 . Seminar in Accounting. (3). Capstone course to be taken, preferably, the student's graduatıng semester. Impact on financial reportıng of the SEC and other regulatory agencies; pension plans and leases; calculatıon of earnings per share; stock rights, stock options and convertible securities. Current pronouncements of the FASB, CASB and AICPA committees. Overview of the accounting process and ethics through case studies. PREREQUISITE: two senior level accounting courses. [0502-1]
2024. Internship in Accounting. (3). Seniors, after receiving approval of the accounting faculty, are
placed in offices of cooperating public accounting firms to receive on-the-job training under the direct supervision of a certified public accountant and the general supervision of the University accounting staff. Credit is allowed upon acceptance of report of work done, verified by supervising accountant. Minimum time: 500 hours. PREREQUISITE: senior standing. [0502-8]
Graduate Courses in Accountancy: For course descriptions and details of the graduate programs, see The Bulletin of The Graduate School.

## ECONOMICS

PROFESSOR THOMAS O DEPPERSCHMIDT, Chairman
Room 400, The College of Business Administration Building
Requirements for the majors and minors in economics for the Bachelor of Business Administration degree are listed on page 62. Requirements for the major and minor in economics for the bachelor's degree in The College of Arts and Sciences are listed on page 56
NOTE: In addition to specific prerequisites, junior standing or permission of the department charrman is a prerequisite for all 3000 and 4000 level courses in The College of Business Admınistration.

## 1520 ECONOMICS (ECON)

1010. Economic Issues and Concepts. (3). A critical examination of the current economic issues facing the country. Discussion and use of the elementary tools of economic analysis so that the student becomes familiar with the importance and applicability of economic reasoning. This course will not satisfy either the ECON 2110 or 2120 requirement for The College of Business Administration.
[2204-1]
1011. Introduction to Macroeconomics. (3). An introduction to the nature and functions of the national economy. Topics include: supply and demand, national income and product, consumption and investment behavior, fiscal and monetary policy. and international trade and finance. [0517-1]
1012. Introduction to Microeconomics. (3). An introduction to the tools of economics as they apply to the operation of a market economy. Topics include supply and demand analysis, consumer behavior, the economic nature of production and cost, the behavior of firms in both competitive and monopoly environments, income distribution theory and the effects of government intervention in the market system. PREREQUISITE: ECON 1010 or 2110 is recommended but not required. [0517-1]
2130 . Principles of Macroeconomics (Honors). (3). An accelerated and intensified introduction to the basic concepts of macroeconomics: supply and demand, national income and product, unemployment and inflation, monetary and fiscal policy, and international trade. PREREQUISITE: invitation of the Department of Economics or admission to the University Honors Program. [0517-1]
1013. Principles of Microeconomics (Honors) (3). An accelerated and intensified introduction to the basic concepts of microeconomics: supply and demand, consumer behavior, production and cost, competitive and monopolistic market structure, incone distribution, and the effects of government intervention in the market system. PREREQUISITE: invitation by the Department of Economics or admission to the University Honors Program.
[0517-1]
1014. Labor Economics. (3). An introductory course dealing with the institutional aspects of the American labor force and its organization wage and employ-
ment theory, the economic role of collective bargainng, and the basic ingredients of public policy toward abor organization. PREREQUISITE: ECON 2120 [0517-1]
1015. Microeconomic Theory. (3). An intermediate level approach to price theory. Stress is placed on the market mechanism as a device for resource allocation, with attention given to the uses of basic microeconomic concepts in the analysis of economic problems and in the formulation of policy. PREREQUISITE: ECON 2120. [0517-1]
1016. Macroeconomic Theory. (3). An intermediate level approach. Attention is given to social income accounting and to functional relationships between important aggregate economic variables as well as to forecasting and social policy implications. PREREQUISITE: ECON 2120. [0517.1]
1017. Economic Development of the United States. (3). Analysis of economic growth of the American economy in general and of the problems of economic growth in the South in particular. Emphasis is placed on the factors instrumental in that growth in the various segments of the economy. PREREQUISITE: ECON 1010 or 2110 . [0517-1]
1018. International Economic Development-An Ecological Perspective. (3). This course examınes the process of economic development as an adaptive interplay between man's needs and the ways in which the environment is exploited to satisfy those needs in both developed and less developed countries. PREREQUISITE: ECON 1010 or 2110 or consent of the instructor. [0517-]
1019. Money and Banking. (3). Monetary and banking history of leading countries with special emphasis on the theory of money and banking in the United States, deposit and earnings operations of individual banks, interbank and central bank relations. PREREQUISITE: ECON 2120. [0504-1]
1020. Manpower Program Planning. (3). A study of the planning of crograms designed to solve manpower problems. Major topics include an overview of manpower as a field of study, historical development of manpower policy and legislative efforts to relieve manpower problems, methods of manpower research, goals of manpower planning, and approaches and techniques of manpower planning PREREQUISITE ECON 3210. [0506-1]
1021. Manpower Program Administration. (3). A study of the administration of programs designed to solve manpower problems. Major topics include management of manpower program units, special income and employment groups in the labor force, types of manpower programs, delivery of manpower services, coordination of programs among manpower agencies, and evaluation of manpower programs. PREREQUISITE: ECON 3210, [0506-1]
1022. Managerial Economics. (3). An attempt to develop an understanding of the economic reasoning underlying managerial decısion-makıng Economic analytical techniques are applied to profit, competıtion, product policy, demand and cost conditions, pricing policıes, and capital budgeting. PREREQUISITE: ECON 2120. [0517-1]
1023. Economic Forecasting. (3). The current economic thinking on the problems of recession and inflation are examined as background to economic forecasting. The several methodologies of forecasting are then analyzed with examples of each. PREREQUISITE: MGMT 3711 or the equivalent.
[0517-1]
1024. Government Regulation of Business. (3). The several approaches to legal and legislative control of business-especially tax laws, commission regulations, and anti-monopoly legislation-are considered in view of the impact of each on industrial operating policy. PREREQUISITE: ECON 1010 or 2110. [0517-1]
1025. Industrial Organization. (3). The course is an economic analysis of two aspects of American industry 1) an historical study of new industries, of the question of oligopoly market power, and of the
impact of merger waves, and 2) an analysis of structure, conduct, and performance in industry using case studies in manufacturing, transportation and trade. PREREQUISITE: ECON 2120. [0517-1]
1026. Comparative Economic Systems. (3). An analytical study of the theoretical framework underlying major alternative economic systemscapitalism, socialism, communısm, fascısm-with U.S., Sweden, the U.K., the U.S.S R., and Spain used as examples. Attention is also directed to problems and difficulties associated with the integration of systems. PREREOUISITE: ECON 1010 or 2110.
[0517.1]
1027. International Economics. (3). An historical approach to the theory of international trade, with consideration given to the techniques of control over investment and trade, foreign exchange, balance of payments, and world interdependence. PREREQUISITE: ECON 3610. [0517-1]
1028. Development of Economic Thought. (3). A critical study of the historical development of economıc thought. Attention is focused primarily on the emergence of Classical and Neoclassical thought, the several dissident schools of thought, and twentieth-century economic thought. PREREQUISITE: ECON 1010 or 2110. [0517-1]
1029. Urban and Regional Economics. (3). A survey of the theory and problems of regional economic development and the evolving economic structure of urbanized areas. Analysis of the principles of the location of economic activity. interregional income and trade theory, and public policy for the development of regions. PREREQUISITE. ECON 1010 or 2110 . [2204-1]
1030. Central Banking and Monetary Manage ment. (3). A critical examination of the history and economic function of central banks Analysis of the role of monetary policy in achieving predetermined objectives, with emphasis on the interrelationships of monetary policy, central banking, and the financial markets. PREREQUISITE. ECON 3610. [0504-1]
1031. Economics of the Public Sector. (3). The theory and practice of government expenditure, revenue, and debt, and the problem of integrating them into meaningful fiscal policy Alternative forms of taxation are analyzed, especially from the standpoint of economic effects. PREREQUISITE: ECON 2120. [0504-1]
1032. Economics of State and Local Governments. (3). Fiscal operations at state and local government levels in the United States Attention is given to state and local government tax structures particularly with special emphasis on property tax assessment and adminisiration. Also a consideration of the fiscal relations of inter governmental units, their expenditure elements, debt policy, budgeting, and financial administration. PREREQUISITE: ECON 1010 or 2110 . [0504-1]
1033. Introduction to Economic Analysis I. (3). An introduction to the application of quantitative techniques of analysis to economic problems, including the identification of meaningful relatıonships, for mulating usable quantitative statements about them, and developing relevant analytical methods PRERE QUISITES one year of college mathematics and ECON 3310. [0517-1]
1034. Introduction to Economic Analysis II. (3). A continuation of Economics 4810 with emphasis on the more complex and involved relationships of economic theory. PREREQUISITE: ECON 4810

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[0517 \cdot 1]
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4920. Senior Seminar in Economics. (3). A semınar coordınated by the department charman and conducted by selected members of the department. Designed to integrate the several fields and course areas pursued by undergraduate majors into a meaningful whole. Required of all departmental majors in their last semester of undergraduate enrollment. (0517-1)
Graduate Courses in Economics. Some of the 4000 courses described in the preceding section may be
taken for graduate credit at the 6000 level with the approval of the department charman. For further details of the graduate program, see The Bulletin of The Graduate School.

## FINANCE, INSURANCE AND REAL ESTATE

ASSOCIATE PROFESSOR DONALD A. BOYD. Charrman
Room A 402, The College of Business Administration Building
Requirements for the major and minor are listed on page 62
NOTE: 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.

## FINANCE, INSURANCE*AND REAL ESTATE (FIR) It 30

2220. Personal Financial Management (3). Non. technical course dealing with the broad areas of budgeting. insurance, borrowing and credit purchases, home ownership, investment, taxes, and family financial planning. NOTE. If taken by a student atter he has received credit for FIR 3710 or 3810 , credit will not count for BBA degree [0501-1]
2221. Business Law (3). A course designed to familiarize the student with the elements of law and legal principles encountered by the businessman Emphasis will be given to the basic law of contracts. sales and secured transactions, negotiable instruments, real and personal property, agency, forms of business organization, suretyship, insurance contracts and torts. [0501-1]
2222. The Legal, Social, and Political Environment of Business. (3). The central issue of this course is the legal, social, and political environment in which business and its executives exist Students will be encouraged to gain a broad understanding of the legal, social, and political forces that affect business operations Both lectures and case discussions will be utilized [0501-1]
2223. Real Estate. (3). Real estate law, property description, methods of transferring property, joint ownership, tax sales and itle to property, inheritance of real property [0511-1]
2224. Business Finance. (3). An introduction to principles of financial management integrated with institutional finance. Current topics of managerial finance including working capital management, capttal budgetıng, and acquisition of funds are discussed. PREREQUISITE ACCT 2020. [0504-1]
2225. Investments. (3). The principles of investment in stocks and bonds and their application to specific classes of investments Both semesters PREREQUISITE ACCT 2020 [0505-1]
2226. Financial Markets. (3). A survey of the important funds markets, the institutions and characteristics peculiar to them. The sources of supply and of demand for funds in each market, and the complex interrelations between the several markets are carefully analyzed [0504-1]
2227. Principles of Risk and Insurance. (3). Theory of risk, risk management, and insurance practice and problems in the fire, liability, automobile, marine, surety, life, health and accident lines. [0512.1]
2228. Law of Taxation and Planning of Estates. (3) A survey course of the law of taxation as applied to the transmission of property by gift or death and its impact upon accumulations of wealth. Estate planning from an individual viewpoint designed to create, maintain, and distribute the maximum estate possi ble. PREREQUISITE FIR 3011 or consent of the instructor [0501-1]
2229. Topics in -. (3). A current topics course in one of the following areas. Finance, Insurance, Real Estate, or Business Law Course emphasis will vary
each semester Specific course descriptions will be avallable through the FIR Department prior to enrollment. May be repeated once with a change in topic area. PREREQUISITE: consent of instructor
[0599-7]
2230. Real Estate Law. (3). This course covers law and legal instruments as applied to real estate and is designed to serve the needs of property owners and those engaged in the real estate business PRERE QUISITE: FIR 3310. [0511-1]
2231. Real Estate Finance. (3). Examination and analysis of the source of funds for financing all kinds of real estate transactions, including FHA and VA types PREREQUISITE: FIR 3310 [0511-1]
2232. Determinants in Housing Finance. (3). Consideration of determinants of private and public demand for housing; the relationships between construction and economic trends; new town legislation, urban renewal and development, improving envionment and housing for low income groups, criteria for assessing public policy, policy implemen tation; the role of a private enterprise in developing, maintaınıng and improving housing PREREOUISITE: FIR 3310. [0511-1]
2233. Real Estate Appraisal. (3). The fundamentals of appraising residential, commercial, and industrial real estate. PREREOUISITE. FIR 3310. [0511-1]
2234. Real Estate Investment Analysis. (3). Real Estate investment principles and practices will be reviewed, analyzed and evaluated. Emphasis will be placed on tax considerations, investment strategy and model building PREREQUISITE: FIR 3310
[051 1-1]
2235. Managerial Finance. (3). Analytical approaches to the firm's financial decisions; including current asset management, capital budgeting, the cost of capital, capital structure determination, and dividend policy. PREREQUISITE: FIR 3410. [0504-1] 4550. International Finance. (3). Financing international trade and investments; foreign exchange markets and exchange rates; the balance of payments; current developments in international financial cooperation. [0504-1]
2236. Cases in Managerial Finance. (3). A case course emphasizing the application of tools and principles introduced in previous courses to develop up-to-date problem solving techniques. Cases are approached from the standpoint of top level management and utilize both quantitative and qualitative analysis. PREREQUISITE: FIR 4440 or consent of the instructor. [0504-1]
2237. Operations and Management of Financial Institutions. (3). This course is designed to provide exposure to the financial policies and decisionmaking that are peculiar to financial institutions in the United States. The profitable management of funds consistent with adequate standards of liquidity and solvency. PREREOUISITES: ECON 3610, FIR 3410, and FIR 3720, or consent of the instructor
[0504-1]
2238. Security Analysis and Portfolio Management. (3). A development of techniques for finding the actual worth of securities, primarily stocks and bonds Portfolio management involves selection, tımıng, diversification, and other aspects of supervising investment funds. PREREQUISITE: FIR 3710.
[0505-1]
2239. Internship in Real Estate. (3). Seniors majoring in real estate with the approval of the department faculty, are placed with real estate firms to work in the areas of real estate sales, brokerage, finance, development, appraisal and property management. Spring semester only. PREREOUISITES: a minimum of 9 hours in real estate courses and senior standing. [0511-8]
2240. Property and Casualty Insurance. (3). The forms and functions of fire, marine, automobile, general liability, and other types of property and casualty insurance with emphasis on their application to commercial and industrial occupancies. A
survey of current underwriting pracuce. PREREQUISITE. FIR 3810. [0512-1]
2241. Life and Health Insurance. (3). The functions of life and health insurance with emphasis upon the need for insurance and the service of life and health insurance to the American family and community. A study of the mechanics of private and public insurance and annuities. PREREQUISITE: FIR 3810
[0512-1]
2242. Functional Aspects of Property and Liability Insurance Carriers. (3). Company and industry functions other than contracts, including rating, ratemaking, reserves, auditing, underwriting, reinsurance, claims, production engineering, and governmental supervision. PREREQUISITE FIR 3810.
[0512-1]
2243. Social Insurance. (3). The nature and causes of economic insecurity in our society with emphasis on the broader aspects of public and private programs: the Social Security Act, Unemployment Compensation, Workmen's Compensation, Medicare and other approaches. The course de-emphasizes detalled facts and statistics which are otherwise readily available from various governmental agencies.
[0512-1]
2244. Employe Benefit Programs. (3). An analysis of tax deferred employe compensation plans. Included are pension, profit-sharing, annuity, stock purchase and other incentive or retirement plans. Group insurance and Social Security programs are considered [0512-1]
2245. Risk Management. (3). Problems of the risk manager in small and large firms, methods of handling risk that serve as alternatives to obtaining insurance, and a brief survey of insurance as a standard for comparisons. [0512-1]
2246. Problems in Finance, Insurance, or Real Estate. (1-3). Student will carry on approved research projects in his major area under supervision of staff members. PREREQUISITE: senior standing and permission of the department chairman. [0501-8]
Graduate courses in Finance, Insurance, and Real Estate: Some of the 4000 courses described in the preceding section may be taken for graduate credit at the 6000 level For further details of the graduate program see The Bulletin of The Graduate School.

## MANAGEMENT

ASSOCIATE PROFESSOR
THOMAS R. MILLER, Acting Chairman
Room 202, The College of Business Administration Building

Requirements for the major and minor in management are listed on page 63

NOTE: 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

## I550 MANAGEMENT (MGMT)

1010. Introduction to Business. (3). A survey course to acquaint business students with the major institutions and practices in the business world Management fields include such areas as personnel management, labor-management relations, and production management. Other major fields include such areas as business law, accounting, finance, and marketing. The course is designed to provide the elementary concepts of business, to act as an orientation course for selection of a specific major, and to provide 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. Introduction to Data Processing Systems. (3). This course is designed to give an introduction to the characteristics of electronic machines and their potential uses. Emphasis is placed on the areas of data equipment operation; the concepts of program-
ming as required by an appropriate business relate computer language; data processing equipment ac quisition and use; and the data processing organiza tion. The objective is to equip the student to com municate with data processing personnel but not, in itself, to prepare the student for technical employ ment in the field. [0703-1]
1012. Organization and Management. (3). An examination of the management functions and the basic concepts and principles of management. Topic to be covered include planning, decision-making, organization, coordination and control, and the basic elements of production management. PREREQUI SITE: junior standing or permission of the depart ment chairman. [0506-1]
1013. Industrial Relations. (3). This course is designed to provide the manager with an understanding of the role played by the modern labor organization. Included are 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 giant labor federations are traced Internal policies and tactics of local unions are analyzed PREREOUISITE: MGMT 3110. [0516-1]
1014. Business Statistics I. (3). An introduction to the procedures for the collection, analysis, presenta tion, and interpretation of business and economic data. Topics include a comprehensive coverage of probability theory and business decision making under conditions of uncertainty. PREREQUISITE: MATH 1203 or higher and junior standing. [0503-1] 371 1. Business Statistics II. (3). An extension of the range of topics covered in Business StatisticsI. Topics to be covered include the application of techniques of sampling theory, hypothesis testing, time-series analysis, and regression and correlation techniques, both simple and multiple. PREREQUISITE: MGMT 3710. [0503-1]
1015. Personnel Administration. (3). Employeremployee relationship; job analysis; recruitment, selection, training, transfer, promotion, and dismissal of employees; industrial unrest; wage plans and policies; employee health, interest, and morale; dealing with unions. PREREQUISITE: MGMT 3110.
[0506-1]
1016. Collective Bargaining. (3). Labor-management relations from the standpoint of collective bargaining contracts, with emphasis on the process of negotiating agreements, including procedures, tactics, and subject matter. PREREQUISITE: MGMT 3110. [0516-1]
1017. Labor Legislation. (3). Historic and philosophic background of labor legislation with emphasis on recent legislation in the labor area and the effect of these laws on social and economic institutions. PREREOUISITE MGMT 3110. [0516-1]
1018. Compensation Administration. (3). Systematic examination of the administration of waye and salary as a tool of management. Through the use of job descriptions, job analysis, and job evaluation methods, instruction is given in the techniques of rationalizing wage structures. Analyses of some of the outstanding considerations which must be taken into account in installing and administering wage programs are made. PREREQUISITE: MGMT 3110. [0506-1]
1019. Organizational Behavior in Business. (3). A study of human relations as applied to people at work in all kinds of organizations. Emphasis is placed on the understanding of human behavior and the motivation of employees to work together in greater harmony. Topics to be covered include fundamentals of organizational behavior, leadership and its development, organizational environment, and communication and group processes. PREREQUISITE: MGMT 3110. [0515-1]
1020. Motivation and Leadership. (3). Centers on the identification of theoretical and practical approaches to influencing and motivating people. The findings of numerous theorists are compared and contrasted to explore the relative effectiveness of
farious leadership styles and motivation theories rom a managerial view. Experimental based learning nethods are used to aid diagnosis and understanding fone's own influence styles. CQREQUISITE: MGMT 1420. [0502-1]
1021. Production Management. (3). A course Cevoted to the development of scientific management, organization of the production function, operafion and control of production systems, application of the analytical methods of cost analysis, simulation, and statistical analysis. Application of schematic analysis to production will also be covered PREREOUISITES: MGMT 3110 and 3711. [0506-1]
1022. Business Policy. (3). Advanced problems in policy evaluation, determination, execution, administration, and control. Policy objectives in integration of product, marketing, manufacturing, finance, and organization. PREREQUISITES: MGMT 3110 and senior standing in The College of Business Administration. Course should be taken in either last or next to last semester before graduation. [0501-1]
1023. Intermediate Statistical Analysis. (3). An in depth study of business decision making using advanced statistical concepts including additional probability distributıons, use of samples and sample design, non-parametric methods, and advanced techniques of analysis through use of correlation analysis and analysis of variance. Computerized statistical programs will be utilized to solve complex problems. PREREQUISITES. MGMT 2750 and 3711. [O506-3]
1024. Computer Programming Principles and Applications. (3). A course emphasizing the programming of electronic digital computers through use of the COBOL programming language. The students will be required to program and run several business oriented problems in the COBOL language. PREREQUISITES junior standing, MGMT 2750 and one college level mathematics course or permission of the instructor. [0704-3]
1025. Operations Research. (3). An introductory study of decision-making which concentrates on the model building process within the decision theory framework The electronic computer will be used where appropriate to solve problems of linear programming, watting line theory, simulation, game theory, and other statistical problems of a business and economic nature. PREREQUISITE: MGMT 3711 or consent of instructor. [0705-3]
1026. Systems Design for Business Activities. (3). Emphasis will be given to computer systems design for typical business applications involving the automation of business activities. This course will concern estimates of computer requirements, organizational arrangement, planning the total system, flow-charting, conversion problems, cost and performance evaluation. The objective is to simulate the middle level executive role in the transition and integration of business operations into computer oriented systems. PREREQUISITES: MGMT 2750 and 3711. [0705-3]
1027. Management Information Systems. (3). Problems and techniques concerning the design and installation of responsive systems will be brought together with special attention to the executive use of the system's product System approaches utilizing current planning and control models will be studied through current literature and texts in the computer field. PREREQUISITES: MGMT 2750 and one college level mathematics course; junior standing, or permission of the instructor [0506-1]
1028. International Management. (3). Constructed to provide fundamental knowledge of contemporary managerial problems as presented in a foreigninfluenced environment Uniqueness of problems in planning, control, choosing foreign associates, plan location, labor, bureaucracy, legal constraints, and trade with foreign governments will be highlighted by texts and through discussion of articles from current business periodicals. PREREQUISITES MGMT 3110 and MKTG 3010. [0506-1]
1029. Venture Initiation Management. (3). The sourse examines the initiation process of a new bus-
iness venture Participants as teams will develop a detailed development plan coverıng all phases of business initiation and development PREREQUISITE: completion of 3000 level Business Administration Core Courses or consent of the instructor.
[0506-1]
1030. Management Problems. (1-3). Student will carry on approved research projects in his major area under supervision of staff members. PREREOUISITE: senior standing and permission of the department chairman. [0506-8]
Graduate courses in Management. Some of the 4000 courses described in the preceding section may be taken for graduate credit at the 6000 level. For further details of the graduate program see The Bulletin of The Graduate School.

## MARKETING <br> PROFESSOR HARRY HARMON SUMMER, Chairman

Room 302. The College of Business Administration Building
Requirements for the major and minor in marketing are listed on page 63.
NOTE: 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.

## 1560 MARKETING (MKTG)

3010. Basic Marketing. (3). General survey of the marketıng structure, development, functions, costs, institutions and pricing PREREOUISITE: junior standing or permission of the department chairman.
[0509-1]
3011. Consumer Behavior. (3). The study of why consumers behave as they do. Psychological and sociological theories and principles are applied to current marketing problems. [0509-1]
3012. Advertising Fundamentals. (3). Survey of the field of advertising including agencies, media, layout, copy, typography. PREREQUISITE: MKTG 3010 or permission of the instructor [0604-1]
3013. Advertising Problems. (3). A case study of the advertising functions, emphasizing the determination of advertising strategy; the planning of creative strategy; planning of media strategy; evaluation of advertising results and an introduction to organization and management of the advertising function. PREREQUISITE: MKTG 3140. [0604-1]
3014. Industrial Marketing. (3). A comprehensive survey of the industrial market-products, structure and functioning. An examination of those segments of the industrial market concerned with agricultural raw materials and products purchased by governmental agencies is also included PREREQUISITE: MKTG 3010. [0509-1]
3015. Retailing Fundamentals. (3). An examınation and evaluation of the changing concepts of retailing from a management viewpoint. A study of the principles that underlie the successful operation of enterprises distributing products and services to ultimate consumers. PREREQUISITE: MKTG 3010 and ACCT 2010 or permission of the department chairman [0509-1]
3016. Retail Merchandising Management. (3). The buying function at the retail level is studied with emphasis on the selection, timing, pricing, merchandising, and control of the inventory investment Longand short-range objectives and policies are considered as they affect merchandise investment. PREREQUISITE: MKTG 3320. [0509-1]
3017. Sales Fundamentals. (3). Covers the basic essentials of salesmanship, sales theory, sales techniques and sales role playing The history of selling and the salesman's role in our economy are included to provide a deeper understanding of the contributions made by the American salesman.
[0509-1]
3018. Sales Promotion. (3). This course is designed to acquaint students with the vast and often unassigned area of marketing that exists between advertising and personal selling This course brings into focus the vital marketing functions that must be performed by manufacturers or middlemen as products flow down the channels of distribution. PREREQUISITE: MKTG 3010 or permission of the department chairman. [0509-1]
3019. Marketing of Services. (3). Study of the structure and organization of service firms. Attention will be given to the role of offering, pricing, place and promotion of services with emphasis on the problem of intangibility and image. PREREOUISITE. MKTG 3010. [0509-1]
3020. Contractual Marketing Systems. (3). The objective of this course is to acquaint the student with the expanding role of franchising and other contractual and legal arrangements utilized in the marketing of products and services. PREREQUISITE: MKTG 3010. [0509-1]
3021. Transportation Fundamentals. (3). An introductory examination of the economic, social, and political aspects of the transportation system of the United States. Includes study of the various modal components (rail, highway, air, pipeline, and water transportation) and internal constraints. PREREQUISITE: MKTG 3010. [0510-1]
3022. Logistics Planning and Analysis. (3). Study of the interelationships among production, marketıng. and financial management as they impact the flow of raw materials and finished goods through the firm Investıgates such managerial activities as inventory control, warehousing location and operation, packaging, transportation alternatives, information process. ing, and integrates the various components into a total logistics system design. PREREQUISITE: MKTG 3610. [0510-1]
3023. Traffic Management. (3). Detailed analysis of the freight traffic function within the firm's logistics system. Includes an examination of rate and classificatıon systems, claim liability, shipping document procedures, carrier selection, and other aspects associated with organizing and operating a traffic department. PREREOUISITE: MKTG 3610 or permission of department chairman [0510-1]
3024. Marketing Research. (3). Research methods and procedures used in the field of marketing to help solve business problems. PREREQUISITES MGMT 3710 and Six (6) hours of Marketing including MKTG 3010. [0509-1]
3025. Advertising Media and Campaigns. (3). An investigation of the characteristics and uses of medıa by companies, products lines and reasons for selection. The last part of both semesters will be devoted to the development of a campaign for a particular firm. PREREQUISITE: MKTG 3140.
[0509-1]
3026. Purchasing. (3). A study of the policies for effective and efficient procurement of goods and services for today's industry. Close attention will be given to the measurement and evaluation of purchasing performance. PREREQUISITE: MKTG 3010.
[0509-1]
3027. Retail Operations Management. (3). Qperational aspects of the retail firm, including store location, layout, merchandise handling, customer services, asset protection, personnel, and expense control are studied. The various means of improving efficiency and productivity are emphasized. PREREQUISITE MKTG 3320. [0509-1]
3028. Credit and Collections. (3). A study of the American credit system and collection methods used today, significance of credit information, management of charge accounts, credit and collection correspondence, mercantıle credit and importance of credit to our economic well-being PREREQUISITE MKTG 3010. [0509-1]
3029. Sales Management. (3). A survey course designed to define and describe the major sales management functions and to provide controlled
practical application of sales management functions through the utilization of the case study approach. Ultimately, the student gains an overview of the operation of marketing departments through the synthesis of three primary divisions of marketing management-sales and admınıstration, sales personnel activities, and sales control. PREREQUISITE: MKTG 3410. [0509-1]
3030. Sales Training. (3). This course covers one of the most important staff activities within any marketing department-the training of sales personnel. Designed to develop salesmanship, the art of persuasion, into a teachable subject which will apply to the business world Student is taught and selftaught, how to become a sales trainer and to develop an understanding of the traınıng director's responsibilitıs. PREREQUISITE: MKTG 3410. [0509-1]
3031. International Marketing. (3). A study of the bases and promotion of foreign trade; international marketing organizations and methods; techn!cal and financial features of international marketing. PREREQUISITE MKTG 3010. [0513-1]
3032. Transportation and Policy Alternatives. (3) Transportation policy alternatives and problems are viewed in relation to their effects on carrers, transport users and the general public Investigation into the evolution of public control and promotion in transportation including an examination of the role of the regulatory commissions. PREREQUISITE: 6 hours in transportation and logistics courses or permission of the department chairman. [0510-1]
3033. Carrier Management. (3). Analysis of problems confronting managers of transportation companies. Topics include carrier organization, operations, marketing strategies, finance, control, sales, labor relations, and shipper-carrier interaction PREREQUISITE: 6 hours in transportation and logistics courses or permission of department chairman. [0510-1]
3034. Seminar in Transportation and Logistics. (3) Seminar devoted to the study of problems in transportation and logistics. PREREQUISITE: 9 hours in transportation and logistics courses or permission of the department chairman. [0510-1]
3035. Marketing Strategies. (3). Comprehensive study of marketing strategies and how they may be implemented. Computer games and cases as well as "real-world" problems are used to illustrate the application of marketıng concepts in a practical manner. PREREQUISITES: MKTG 3012, 3610, and 4080. [0509-8]
3036. Problems in Marketing. (1-3). Students will carry on approved research projects in their major area under the supervision of staff members. PREREQUISITE: senior standing and permission of the department charman. [0509-8]
3037. Marketing Internship. (3). Seniors majoring in marketing may, after receiving approval of the department chairman and professor concerned, obtain actual experience by working a minimum of 200 hours in approved marketıng positions. Student may not be enrolled for more than 12 academic hours when enrolling for credit in work experience
[0509-8]

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
Requirements for the majors and minors in office administration-secretarial and in office admin-istration-management are listed on page 64

NOTE: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 ADMINISTRATIQN (OFAD)

1210. Elementary Typewriting. (3). Use and operation of the parts of the typewriter, mastery of the keyboard, simple business and professional letters and reports, introduction to tabulations. [0514-1]
1211. Intermediate Typewriting. (3). The typing of different styles of business letters, tabulations, and manuscripts; developing a typing rate of 45 words or more per minute. [0514-1]
1212. Fundamentals of Shorthand. (3). Basic principles of Gregg shorthand-alphabet, brief forms, phrases, and abbreviations; beginning dictation and pre-transcription traıning Students who have completed one or more units of shorthand in high school may not take QFAD 2120 for credit
[0514-1]
1213. Intermediate Shorthand. (3). Review of shorthand theory, acquisition of ability to take shorthand and to transcribe accurately. PREREOUISITES: OFAD 1220 or equivalent; OFAD 2120 or equivalent. [0514-1]
1214. Advanced Shorthand. (3). Review of shorthand principles, daily speed practice, development of transcription skill for production of mailable transcripts. PREREQUISITE OFAD 3250 or QFAD 1220. [0514-1]
1215. Advanced Typewriting. (3). Review of business letter styles, manuscripts and reports, statistical tables. Development of a typing rate of better than 60 words per minute. PREREQUISITE: QFAD 1220. [0514-1]
1216. Business Communication. (3). The fundamentals of business communication are examıned and studied with a view to a thorough understanding of the techniques of report writing and of some of the basic forms of letters. Emphasis is placed on the writing of reports, financial statements, minutes of meetings, abstracts, and specific types of routıne letters. Attention is also given to selection and use of research mediums. PREREQUISITE: completion of freshman English plus the ability to type. [0514-1]
4161-4163. Technical Dictation. (3).
Only one may be taken for credit.
PREREQUISITES: OFAD 1220, OFAD 2130
1217. Legal: Review of Gregg shorthand theory, shortcuts, vocabulary needed to be a legal stenographer. [0514.1]
1218. Medical: Review of Gregg shorthand theory, shortcuts, vocabulary peculiar to the medical profession [0514-1]
1219. Scientific: Review of Gregg shorthand theory, special scientufic vocabulary and terminology [0514-1]
1220. Secretarial Typewriting and Office Machines. (3). Instruction and practice in use of secretarial office machines including executive typewriters; transcribing from voicewriting equipment, ink, spirit and offset duplication; copying machines Four hours per week. PREREQUISITE QFAD 3250.
[0514.1]
1221. Applied Secretarial Practice. (3). Qualificatıons, duties and training of a secretary; requirements for employment; organizatıon of work; telephone etıquette; business reference books; receptionist techniques. [0514-1]
1222. Records Management and Control. (3). Handling of incoming and outgoing mail; filing procedures; installation, administration, and control of geographic, numeric, subject and Soundex filing systems; practice in the several types of filing
[0514-1]
1223. Office Model Simulation. (3). This course is designed to provide a realıstic office-like situation for training students to be secretries or business education teachers. Students assume the role of "employee" while performing interrelated tasks in the office model designed to simulate an actual office. Four hours per week. PREREQUISITES. QFAD 4270, QFAD 4320. [0514-1]
1224. Data Processing for Secretaries and Educators. (3). Introductory course in the operation and use of punched card equipment. The course provides a practice and study in key punching. sorting, card design, flow chartıng, systems analysis, and special applications relating to school and office. Laboratory experience on both unit record equipment and computers is provided. [0514-1]
1225. Office Management. (3). Modern methods used in office organization and management, scientific office management, office reports, office correspondence, calculating and checking, filing. records retention, duplicatıng, handling the mail, planning procedures, planning for equipment, office machines, automatıon, planning for offıce space, physical working conditions and office layout.
[0514-1]
1226. Problems in Office Administration. (1-3). Students will engage in directed individual study in their major area under the supervision of staff members PREREQUISITE: permission of the department chairman [0514-8]

Graduate Courses in Office Administration-Office Management: Certain of the 4000 courses, described in the preceding section, may be taken for graduate credit at the 6000 level. For further information concerning the graduate program, see The Bulletın of The Graduate School.

## THE COLLEGE OF COMMUNICATION AND FINE ARTS

## ART <br> PROFESSOR

## AWRENCE FIELDING EDWARDS, Chairman

## Room 201, Jones Hall

equirements for the major in art history and minor in rt are listed on page 70; the program for the Bachelor f Fine Arts degree is outlined on page 67
mportant Note: Transfer students seeking advanced tanding in art are required to submit a portfolio.

## K020 ART (ART)

101. Introduction to Art. (3). An introduction to he fundamental principles of the fine arts, aimed at roviding an understanding of art products and proesses as a basis for judgment and enjoyment of all ypes of art expression. [1002-1]
102. Basic Design. (3). Basic design factors of line, alue, texture, form, and space presented in a roblem solving approach for the purpose of stimuating the student's visual perception and for encouraging inventive manipulation of tools, materials, and techniques. Development of a vocabulary for orofessional practice is encouraged through lectures, discussions, and class critique. [1002-1]
103. Color Fundamentals. (3). A study of light and color in relation to form. The mixing of colors and the notation of hue, value, chroma relationships. A study of the interaction of color; color harmony, psychology, and symbolism in a variety of mediums. PREREQUISITE: ART 1201. [ 1002-1]
104. Beginning Drawing. (3). An introduction to the materials and techniques of basic drawing
[1002-1]
105. Figure Structure. (3). Analysis of the structure of the human figure with emphasis on contour, gesture, and volume. PREREQUISITE. ART 1311. [1002-1]
106. World Artl.(3). The development of the visual arts from prehistoric tımes through the medieval period, their use by man as a social, cultural, and educational force, brief survey of the art of the Far East. [1003-1]
107. World Art II. (3). Continues (but does not presuppose) World Art I; a survey of the development of the visual arts from the medievel period through the Renaissance to the present. [1003-1]
108. Design. (3). A continued study of the elements of design, using a variety of materials and methods. PREREQUISITES ART 1201 and 1204, or permission of the instructor. [1009-1]
109. Design. (3). A contınuation of Art 2201, with attention given to three-dimensional problems in design PREREQUISITE: ART 2201, or permission of the instructor. [1009-1]
110. Lettering and Layout. (3). An introduction to graphic design: problems involving the use of typography; principles and techniques of layout, and the development of roughs and comprehensives. [1002-1]
111. Graphic Production. (3). The preparation of copy for photomechanical reproduction: printing processes, halftone and line reproduction, the selection and use of type and paper. [1009-1]
112. Interior Design. (3). A survey of the field of interior design and some of its underlying principles. PREREQUISITE: ART 1204.[1009-1]
113. Interior Design. (3). A continuation of Art 2231, with emphasis on spatial relations. PREREQUISITE: ART 2231, or permission of the instructor.
[1009-1]
114. Perspective. (3). Theory and practice of perspective projection and its various applications.
[1002-1]
115. Drawing. (3). Advanced problems of com munication through exploration of varied graphic media and methods. PREREQUISITES: ART 1311 and 1314, or permission of the instructor. [1002-1]
116. Drawing. (3). A continuation of Art 2313, with emphasis on personal expression. PREREQUISITE: ART 2313, or permission of the instructor.
[1002-1]
117. Printmaking. (3). An introduction to basic printmaking processes: relief, intaglio, planograph.
[1002-1]
118. Sculpture. (3). An introduction to the basic materials and techniques of sculpture. [1002-1]
119. History of Interior Architecture and Furniture. (3). Survey of interior architecture, furniture design, and decorative arts from the Egyptian era to the 18th century [1003-1]
120. History of Interior Architecture and Furniture. (3). Survey of interior architecture, furniture design, and decorative arts from the 18 th century to the present day. [1003-1]
121. Graphic Design. (3). An introduction to the methods and materials of graphic design, with problems which utilize visual communication PREREQUISITE: ART 2213 and 2221. [1009-8]
122. Graphic Design. (3). A continuation of Art 3221, offering further study in the techniques of newspaper, magazine, and direct-mail layout. PREREQUISITE: ART 3221. [1009-8]
123. Packaging and Display. (3). A study of package designing and display techniques PREREQUISITES: ART 2213 and 2221. [1009-8]
124. Creative Photography. (3). Study and practice of photographic technıques in relation to the field of art. Emphasis is on photography as an art medium. PREREQUISITES: permission of the instructor
[1011-8]
125. Interior Design. (3). Practical problems of interior architecture and design. PREREQUISITE: ART 2232 or permission of instructor. [1009-8]
126. Interior Design. (3). A contınuation of Art 3231, offering further study in interior organization and the designing of residential and commercial interiors. PREREQUISITE. ART 3231 or permission of instructor [1009-8]
127. Painting. (3). A preliminary course in the theory and practice of oil paıntıng. [1002-8]
128. Painting. (3). A contınuatıon of Art 3331 with special attention given to the essentials of still-life, landscape, and portrait painting [1002-8]
129. Printmaking. (3). A contınued study in the graphic arts with further emphasis on woodcut and etching PREREQUISITE: ART 2351, or permission of the instructor [1002-8]
130. Printmaking. (3). A contınuatıon of Art 3351 with emphasis turning to personal expression. PREREQUISITES. ART 2351 and 3351, or permission of the instructor [1009-8]
131. Art Experiences for Elementary Teachers. (3). An introductory course in the development of skills and methods in the school art program, with emphasis on materials and ideas important to children's art expression and growth. [0831-1]
132. Materials and Methods in Teaching Elementary School Art. (3). Designed to aid 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]
133. Art Experiences for Secondary School Art Teachers. (3). Designed to familiarize secondary art teachers with art crafts in a secondary school art program and to allow them to work with equipment, supplies, p:ocesses, and ideas in an art craft program.

PREREQUISITE: ART 2202 or 3411 , or permission of the instructor [0831-1]
3511. Sculpture. (3). The problems of sculptural form as expressed in metal, wood, and related materials [1002-8]
3512. Sculpture. (3).A continuation of ART 3511 with further emphasis on techniques [1002-8] 3523. Ceramics. (3). An introduction to clay and ceramic process. Emphasis is to be placed on a thoughtful, purposeful exploration of medium, regarding both the pottery vessel and the nonvessel object.
[1009-8]
3524. Ceramics. (3). A continuation of ART 3523. Some consideration will be given to fundamental historical and aesthetic aspects peculiar to ceramics as a studio medıum. [1009-8]
3541. Packaging and Displäy. (3). A contınuation of Art 3323 with attention given to trademark designs, package rendering and practical displays. PREREQUISITE: ART 3223. [1009-8]
4101. History of Graphic Design. (3). A survey of major trends and developments in the field of graphic design; typography, illustration, photography, reproduction technology and broadcast media. [1003-1]
4111 . Prehistoric Art. (3). An examınation of the art products of the various Paleolithic, Mesolithic, Neolithic, Bronze, and Iron Age cultures, with emphasis given to Franco-Cantabrian Cave Paıntıngs and Megalithic Architecture. [1003-1]
4121. Ancient Art of the Near East. (3). A study of architecture, sculpture, painting and the minor arts in Egypt and the Ancient Near East. [1003-1]
4122. Greek and Roman Art. (3). A study of the architecture, sculpture, and painting from Aegean art to the fall of the Roman Empire. [1003-1]
4131. Early Christian and Byzantine Art. (3). The development of architecture, sculpture, and painting through the early medieval period, with emphasis on Early Christian and Byzantine art. [1003-1]
4134. Romanesque and Gothic Art. (3). The development of architecture, sculpture, and painting from the Carolingian (Proto-Romanesque) Period through the Gothic Period. [1003-1]
4141. Italian Renaissance Art. (3). Survey of the architecture, sculpture and painting of Italy, 13001550. [1003-1]
4142. Northern Renaissance Art. (3). Fifteenth century art in Northern Europe with emphasis on panel painting, manuscript illumination and printmaking [1003-1]
4146. Baroque Art. (3). An historical study of the architecture, sculpture, and painting from the end of the Renaissance to the Industrial Revolution.
[1003-1]
4151. Nineteenth-Century Art. (3). A study of the art movements of the nineteenth century from NeoClassicism to Impressionism. [1003-1]
4154. Twentieth-Century Art. (3). A study of the major developments from Post-Impressionism to the present. [1003-1]
4162. Spanish Colonial Art. (3). A study of the arts in South America, Mexico, and the United States during the period of Spanish Rule Chiefly, a survey of Baroque art in the Americas [1003-1]
4163. Pre-Columbian Art. (3). A survey of the ancient art of Mexico, Central America and South America from about 1000 B.C. to European contact.
[1003-1]
4165. Art of the American Indian. (3). A survey of the arts of the North American Indians from prehistory to the present. [1003-1]
4167. Art in America I. (3). A survey of American
art: architecture, sculpture, painting, and the minor arts within the continental United States from prehistoric times to the Civil War. [1003-1]
4168. Art in America II. (3). A contınuation of Art 4167. architecture, sculpture, painting and the minor arts in the continental United States from the Civil War period to the present. [1003-1]
4171. Oriental Art: India. (3). Artistic traditions and monuments of India from the Indus Valley period to the 19 th century as related to Hinduism, Buddhism and Islam, the influence of these traditions on Southeast Asia. [1003-1]
4172. Oriental Art: China and Japan. (3). Artistic traditions and monuments of China and Japan from the prehistoric period to the 19th Century as related to Confucianısm, Taoism, Buddhism and Shinto.
[1003-1]
4181. Primitive Art. (3). A survey of the art of the primitive Negro of Africa, the aboriginal peoples of Oceania, and the American Indian. [1003-1]
4201. Advanced Design-Plastics. (3). A course in two-dimensional and three-dimensional design in plastics employing the basic methods of casting resins and thermoheating processes using sheet. rod, and tube plastics. [1009-8]
4202. Advanced Design-Plastics. (3). Further development in creative plastics design through thermoheating process of vacuum forming, blow forming, and resin casting processes. [1009-8]
4203. Advanced Design-Kinetics. (3). A studio course in the application of light, sound and motion to works of art emphasizing an exploration of the various technological advances such as, motorization and techni-media which create motion and/or time related effects. PREREQUISITES: ART 1201, 1204, 2201, 2202. [1009-8]
4204. Advanced Design-Kinetics. (3). This is a continuation of Art 4203 in which more advanced work is done in kinetic design. PREREQUISITE: ART 4203. [1009-8]
4205. Advanced Design-Continuous Pattern Processes. (3). A study of design with emphasis on both the theoretical and practical approaches to continuous pattern processes using various media and processes techniques. PREREOUISITES: ART 1201, 1204, 2201, 2202. [1009-8]
4206. Advanced Design-Continuous Pattern Processes. (3). This is a continuation of ART 4205 in which advanced work is done in constructed pattern processes PREREOUISITE: ART 4205. [1009-8]
4221. Graphic Design. (3). Advanced problems in the fields of advertising and merchandising design. PREREQUISITE: ART 3222 or permission of the instructor. [1009-8]
4222. Graphic Design. (3). The study and execution of graphics for television, incorporating animation and design for the video environment. PREREOUISITE: ART 4221 or permission of the instructor. [1009-8]
4224. Creative Photography. (3). A continuation of Art 3224, covering the historical development of the medium and contemporary techniques. Emphasis will be placed on photography as an individual means of expression. [1011-8]
4231. Interior Design. (3). Advanced study in interior design. Problems in designing complete interiors for homes and commercial structures. PREREQUISITE: ART 4234. [1009-8]
4232. Interior Design. (3). A continuation of Art 4231 with further problems in home and commercial interiors. PREREQUISITE: ART 4231, or permission of instructor. [1009-8]
4233. Interior Rendering. (3). Professional techniques in the rendering of interiors and the construction of models. [1009-8]
4234. Interior Rendering. (3). A continuation of Art 4233 with further emphasis on rendering techniques. [1009.8]
4235. Interior Design Research. (3). Intensive study of special areas of interior design with emphasis on space planning and lighting. PREREOUISITE: ART 3232, or permission of the instructor. [1009.8]
4236. Interior Design Research. (3). Continuation of Art 4235 with emphasis on furniture design and construction. PREREQUISITE: ART 4235, or permission of the instructor. [1009-8]
4321. Drawing and Painting. (3). An advanced course in drawing and painting methods with emphasis on transparent watercolor. PREREQUISITE: ART 2313 or permission of instructor.
[1002-8]
4322. Drawing and $P$ ainting. (3). A contınuation of Art 4321 with attention given to various mixed media PREREQUISITES: ART 2313 and 4321 or permission of instructor. [1002-8]
4331. Painting. (3). A consideration of advanced problems in oil painting, presupposing that the student has mastered basic techniques and is ready for a more experimental approach to the subject. PREREQUISITES: ART 3331 and 3332 or the permission of the instructor [1002-8]
4332. Painting. (3). A continuation of Art 4331 with emphasis on the development of a personal style. PREREQUISITES: ART 3331, 3332, and 4331, or permission of the instructor [1002-8]
4341. Illustration. (3). A survey of the many areas requiring the services of an illustrator and including the preparation of book, magazine, advertising, and television illustrations. [1002-8]
4342. Illustration. (3). A continuation of Art 4341, dealing with analysis of fine art techniques of drawing and painting as they apply to commercial illustration. [1002-8]
4351. Printmaking. (3). Specialization in one or two graphic media. Students are encouraged to develop a personal imagery and the necessary technical abilities. PREREQUISITES: ART 2351, 3351, and 3352, or permission of the instructor [1002-8]
4352. Printmaking. (3) Culminating course in the graphic arts in which work may be done in woodcut, etching, or lithography. PREREOUISITES: ART 2351, 3351, 3352, and 4351, or permission of the instructor. [1002-8]
4380. Museology. (3). (Same as Anthropology 4380). The 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. [1001-1]
4381. Art Curatorial Techniques. (3). Concentrates on curatorial responsibilites and functions: receiving and shipping methods, registration, physical and environmental security, research, conservation, and a study of the art market and publications.
[1003-1]
4382. Museum Operation. (3). (Same as Anthropology 4382). Basic aspects of museum organization, management, exhibit planning and execution, and maintenance of collections and records. [1003-1]
4421. Materials and Methods in Teaching Secondary School Art. (3). (Same as Education 3321). Designed to aid future art teachers in understanding adolescent art expression and in preparing art teaching materials for the secondary school art program. PREREQUISITES: Art 3421 and 3523, or permission of the instructor. [0831-1]
4424. Woven and Constructed Fiber Design. (3). Study in the creative design of textile construction, including experimental and multi-harness weaving, rug-making techniques, macrame, applique, stitchery, crochet, knitting, and related processes. [1009-8]
4425. Woven and Constructed Fiber Design. (3). This is a continuation of Art 4424 in which more advanced work is done in constructed fiber design.
[1009-8]
4511. Sculpture. (3). Advanced work in various sculptural media PREREQUISITES: ART 2511,3511 and 3512 or permission of the instructor. [1002-8] 4512. Sculpture. (3). A contınuatıon of 4511 witt emphasis upon personal expression. PREQUISITE: ART 4511 or permission of the instructor. [1002-8]
4521. Ceramics. (3). Advanced studies in ceramic process and technique. Concentration will be on the development of personal attitudes toward work
[1009-8]
4522. Ceramics. (3). Continued efforts towaro technical competence and the production of ceramic objects reflective of genuinely personal involvement, [1009-8]
4531. Jewelry. (3). Jewelry-making with emphasis on materials and equipment. The nature and possibilities of metals, stones and other materials are investigated in terms of good jewelry design. Basic projects in enameling, soldering, pickling, buffing, and other techniques. [1009-8]
4532. Jewelry. (3). A second course in jewelrymaking and metal-work. Study and practice in good design. Work done in lost wax casting, champleve, cloissonne, and combinations of materials. [1009-8]
4551. Working Drawings and Professional Prac-: tice. (3). Detailing of interior construction and scheduling of finishes. PREREQUISITE: ART 3232 or permission of the instructor. [1009-8]
4552. Working Drawings and Professional Prac-: tice. (3). A continuation of Art 4551. PREREQUISITE: ART 4551 or permission of the instructor. [1009-8]
4611. Senior Problems. (3). Original research in the student's area of concentration, the extent of the project to be approved by the art faculty. [1003-8]
4621. Workshop in Art. (3). The study of specific art problems as they apply to the individual student with emphasis on basic art concepts and creative experience. PREREQUISITE: permission of the instructor [1002-8]
4622. Workshop in Art. (3). A continuation of ART 4621, providing study of problems appropriate to the need of the individual student. PREREQUISITE: permission of the instructor. [1002-8]
4641. Study and Travel in Art (3 or 6). Travel to important art areas of the world and specialized study under the direction of a faculty member of the Department of Art. [1003-8]

## JOURNALISM

## PROFESSOR HERBERT LEE WILLIAMS Chairman

## Room 300, Meeman Journalism Building

Requirements for the major and minor in journalism are listed on page 70.

## K260 JOURNALISM (JOUR)

1011. Survey of Mass Communications I. (3). Social background, scope, functions, and organization of modern communication media, with attention given to newspapers, magazines, motion pictures, radio, television, books, and comics. [0601-1] 1012. Survey of Mass Communication II. (3). The philosophy and goals of modern journalism: their development and impact upon governmental, social and economic systems. NOTE: JOUR 1012 may be taken before JOUR 1011. [601-1]

NOTE: All journalism students must have typing proficiency before admission to courses numbered 2000 and above.
2111. Elementary News Writing. (3). A study of news story structure and the factors that determine the value of news, with consideration given to both the theoretical and practical aspects of news gathering and reporting; lecture and laboratory sessions. [0602-1]
2112. Reporting. (3). Gathering and writing news of the University community, with assignments arranged on The Memphis Statesman. PREREOUISITE. JOUR 2111. [0602-1]
2211. Typography. (3). A lecture-laboratory study of he development of type and the processes of composition, engraving, stereotyping, and printing. Students are provided opportunities to practice the effective use of type and illustration in mass communication. [0602-1]
2300. Survey of Advertising. (3). An exploration of he creative function of advertising with emphasis on he role of the media. [0602-1]
3011. Picture Editing. (3). Selection and arrangenent of illustrative material for newspapers and nagazines; analysis, use and influence of the news sicture; techniques of the picture story; and the role of the picture magazine in the field of communication.
[0602-1]
3111 . Press Photography. (3). Taking pictures with he news camera, developing films, making enargements, cropping and scaling for publication. Students may bring their own cameras. Open to nonnajors with permission of the instructor. [1011-1]
3112. Editing I. (3). Practices in headline writing, diting, and newspaper makeup and study of contemporary editing problems. [0602-1]
3113. Editing II. (3). Continuation of Editing I with emphasis on practical application. Students are tharged with the production of The Memphis Statesnan. PREREOUISITE: JOUR 3112. [0602-8]
3115. Interpretative Reporting. (3). Reporting of he significantly important news with attention to analysis, interpretation, and investigation. PREREOJISITES: JOUR 2112 and junior or senior standing.
[0602-8]
3116. The Magazine. (3). Historical backgrounds, contents, purposes, and readership of general magazines, business and industrial papers and specialzed journals. [0602-1]
3117. Magazine Editing and Production I. (3). diting and production problems of magazines with emphasis on business, industrial, and home eriodicals; headline and title writing; pictorial copy ayout; staff organization; and production processes. REREOUISITE: JOUR 3116 or permission of the nstructor [0602-1]
3118. Magazine Editing and Production II. (3). nternships in editorial offices of approved magazınes oublished in Memphis to offer exposure to the duties, procedures, and skills demanded in editing successul company and business magazınes. PREREOUISITE: JOUR 3117. [0602-8]
3121. Magazine Article Writing I. (3). An introducion to free-lance techniques. Students will study the nagazine market, generate and research ideas, and orepare queries and articles for submission. [0602-8]
3122. Magazine Article Writing. II. (3). Continuaion of Magazine Article Writing I. [0602-8]
3210. Advertising Layout. (3). Basic techniques in aying out the printed advertisement; introduction to he use of advertising mat service in layout. Nonnajors by permission of department chairman only.
[0602-1]
3221. Advertising Copy Writing. (3). The princıples f advertising psychology studied in relation to the roved techniques for writing effective copy; aproximately half of the course is devoted to practice in vriting copy and in preparing rough layouts. [0602-1]
3222. Advertising Sales. (3). Practical experience n the preparation and selling of completed adverisements; the student will service his own clients hroughout the semester, using The Helmsman as a pace medium. PREREOUISITE: JOUR 3221.
[0604-1]
3331. Radio and Television News Writing and Editing. (3). The processing of news for radio and elevision with attention to present-day style used by he electronic media. [0603-1]
3332. Trends in Broadcast Communication. (3). A survey in the history of radio and television, principles of transmission and reception of signals, governmental and self-imposed regulations, and the responsibility of the broadcaster; intended to develop an awareness of the social implications of radio and television. Guest lecturers, class discussion, and case histories relating to the current problems and policies in broadcastıng. [0603-1]
3333. Radio and Television Reporting of Special Events. (3). Preparation and presentation of special programs such as news, sports, interviews, docu mentaries, etc. [0603-1]
3340. Cinematography. (3). Introduction to fundamentals of 16 mm motion picture photography, with emphasis on shooting news film for local television stations [1010-1]
4000. Advertising Internship. (3). Students will work under supervision in order to gain career experience in a local advertising agency, advertising department of a newpaper, television or radio station, or a company advertising department. NOTE: Students may not receive credit for both JOUR 4000 and JOUR 4242. PREREOUISITES JOUR 3210, 3221. [0604-8]
4001. Mass Communication Law and Professional Ethics. (3). Origin and development of the legal principles affecting freedom of expression and provisions of the laws of libel, slander, copyright, and other statutes limiting communication in the fields of publishing and broadcasting. [0601-1]
4002. Writing Projects. (3). Internship for students who have completed basic journalism courses or whose experience has prepared them to handle the duties; students will work in practical assignments or will do approved research in journalism. [0602-1]
4003. Writing Projects. (3). Contınuation of JOUR 4002. [0602-1]
4005. History of Journalism. (3). A study of the origin and development of American journalism; students who enroll in this course should have completed History 2601 and 2602 or the equivalent.
[0602-1]
4008. Avdanced Press Photography. (3). A contınuation of Journalism 3111 with emphasis placed on materials for duotones and for two-color, threecolor, and four-color separation processes. PREREOUISITE: JOUR 3111 or permission of the instructor
[0602-1]
4009. Current Trends in Media Photography. (3). A seminar course in which students study current literature of photography, test new ideas and report techniques and results to the class PREREOUISITE: JOUR 3111 or permission of the instructor [1011-1] 4030. Broadcast Newsroom Management. (3). Policy and regulatory aspects of broadcast news management; personnel and technical factors governing broadcast news production and programming. analysis of news operations. [0603-1]
4050. Fashion Advertising Copy Writing. (3). Introduction to evaluating, writing, and editing of copy for fashion advertising and sales promotion. Students analyze advertising and other promotional practices of retail and wholesale firms, evaluate the fashion market, and prepare sample books of fashion copy writing. PREREOUISITE: JOUR 3221 [0602-1]
4100. Advertising Management. (3). Researching, planning, writing, scheduling, budgeting, and evaluating the complete advertising campaign. Includes media selection, layouts, tapes, storyboards, and preparation of detailed budgets for product or service. PREREOUISTE: senior standing. [0604-1]
4101. Advertising Production. (3). A lecturelaboratory study of typography and photography to develop creative advertisements. The course will include comprehensive pasteups of one-color and multiple-color designs. PREREOUISITE: JOUR 2211.
[0604-1]
411 1. Journalistic Influence and Commentary. (3). Analysis of mass media handling of influence and
opinion material with emphasis on editorial problems, methods, policies and style Practical experience in developing and writing editorial copy
[0601-1]
4210. Religious Journalism. (3). An introduction to medıa coverage of religion; the history of religıous publications; religious journals today; career opportunities in the field of religious journalısm. PREREOUISITE: junior standing or permission of instructor
[0602-1]
4222. Public Relations. (3). The development, scope, and modern role of public relations, with emphasis on case studies, lectures, and experimentation with major public relations tools and practices
[0601-1]
4232. Public Relations Techniques. (3). Booklet production, writing news releases, preparing visuals for speeches, producing slide presentations, writing annual reports, planning and budgeting, and other tasks customarily assigned to the public relations practitioner. PREREOUISITE JOUR 4222. [0601-1]
4242. Public Relations Projects. (3). Sudents who have completed basic journalism and public relations courses are assigned as interns in local public relations offices to work under supervision of qualified practitioners. NOTE: Students may not receive credit for both JOUR 4000 and JOUR 4242 PREREOUISITE: JOUR 4232 or permission of the instructor [0601-1]
4245. Public Affairs Reporting. (3). Designed to help the student understand and write news reports about the relationships among local, state and federal governmental agencies and institutions; the social, educational and economic forces and pressures in the large urban area. PREREOUISITE: News-editorial major [0601-1]

## MUSIC

## PROFESSOR WILLIAM GAVER, Chairman

## Room 123B, Music Building

Requirements for the major in applied music for the Bachelor of Arts degree are listed on page 70. The program for the Bachelor of Music degree is outlined on page 68. Requirements for the Bachelor of Music Education are listed on page 80.
APPLICATION AND AUDITION PROCEDURES: Applicants seekıng admission as music majors must complete and submit to the Admissions Office of Memphis State a formal application form. In addition to academic considerations, admission to the music degree program requires a personal interview (where applicable) and an audition of all candidates. The audition consists of (1) performance in the student's major applied area and (2) a music theory examination (written and aural). Candidates are accepted on the basis of accomplishment, future promise, and suitability for the program in which they wish to enroll. Candidates audition at designated locatıons on Saturdays, November through April, or by appointment. Students seeking admittance as a music major in the fall semester are required to audition no later than June 15 . Students seeking admittance as a music major in the spring semester are required to audition no later than December 1. Additional information pertaining to admittance as a music major may be obtained on request from the Department of Music office or by writing Admissions Coordinator, Department of Music, Memphis State University, Memphis 38152.
PIANO PROFICIENCY. All music majors in all degree programs must demonstrate proficiency in piano. This may be done in etther of two ways: (1) by successful completion of MUSE 1108, Class Instruc tion 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 Office. Students must attempt the pıano proficiency examınation prior to attaınment
of funior classification. If the examination is failed, enrollment in piano class at an appropriate level is mandatory until the student either attains a passing grade in MUSE 1108 or successfully passes the proficiency examination Transfer students must attempt the proficiency during the first semester of residence.

## K 307

MUSIC THEQRY AND CQMPQSITIQN (MUTC)
1001. Basic Music Theory. (2). Designed for students who plan to major in music but do not meet mınimum standards for MUTC 1004 Not allowable as credit toward the satisfaction of requirements for the major or minor Two laboratory hours per week.
[1004-1]
1002. Aural Music Theory 1. (1). Sight-singing and ear-training techniques using material studied in MUTC 1004, keyboard harmony Two laboratory hours per week. PREREQUISITE: MUTC 1001
[1004-1]
1003. Aural Music Theory II. (1). Contınuation of Music 1002 with more difficult unison and easier two-, three-, and four-part materials Two laboratory hours per week. PREREQUISITE: permission of the instructor [1004-1]
CQMPREHENSIVE MUSICIANSHIP An integrated approach to the study of music in which fundamentals of theory are applied in ear training, composition. and analysis of music literature
1004. Comprehensive Musicianship I. (3). Notatoon, intervals, scales, solmization, key signatures, triads and non-harmonic tones, introduction to orchestral instruments, to principles of melodic and rhythmic construction, to periods of music history with rudiments of style analysis. Five class hours per week. PREREQUISITE. Theory Placement Examınation. [1006-1]
1005. Comprehensive Musicianship II. (3). Continuation of concepts introduced in 1004, four-voice structure, functional harmony, diminished triads, seventh and altered chords; categories of non-chord tones; introduction to contrapuntal devices; ranges and transpositions of instruments; survey of preeminent composers, genres, and stylistic characteristics of perıods of Western music history. Five class hours per week PREREQUISTE: MUTC 1004
[1006-1]
1006. Comprehensive Musicianship III. (4). Continuation of concepts introduced in 1004 and 1005; use of second inversion chords and augmented triads; study of harmonic rhythm, chord classification, and figured bass; review and drill of all diatonic functional harmony; music literature emphasizıng Renaıssance and Baroque music. Five class hours per week. PREREQUISITE: MUTC 1005 [1006-1]
2001. Aural Music Theory III. (1). Contınuation of MUTC 1003 with classwork correlated with MUTC 3001. Two laboratory hours per week. PREREQUISITE: permission of the instructor. [1004-1]
2002. Aural Music Theory IV. (1). Contınuation of MUTC 2001 with classwork correlated with MUTC 3002. Two laboratory hours per week PREREQUISITE: permission of the instructor. [1004-1]
2101. Theory of Jazz Improvisation. (3). A preliminary study of chord symbols, contemporary use of modes and other scalar material. Basic jazz improvisation literature. PREREQUISITE: MUTC 1005 COREQUISITE: MUAP 3103. [1004-1]
†2501. Composition. (2). Class instruction in free composition with emphasis on smaller forms May be repeated for additional credit. PREREQUISITE: MUTC 1004 [1004-1]
†Composition is taught as applied music. Students receive the equivalent of one half-hour lesson per week. The fee for this instruction is $\$ 25.00$ per semester
*2502. Composition. (2). Works for piano, volce, chorus, and small ensembles; a study of style and analysis of works from music literature. May be
repeated for additional credit. PREREQUISITE MUTC 2501 or permission of instructor [1004-1]
Composition is taught as applied music. Students receive the equivalent of one hour lesson per week. The fee for this instruction is $\$ 50.00$ per semester 2511. Introductory Electronic Music. (2). Empha sis on study of basic techniques of electronic music composition through work in tape manipulation, synthesizer operation, musique concrete; study of history and aesthetics of electronic music. PREREQUISITE: MUTC 1006 or permission of instructor FEE: $\$ 50$ [1004.8]
3001. Comprehensive Musicianship IV (4). Continuation and development of concepts introduced in 1004, 1005, and 1006, basic principles of formal analysis; binary, ternary, and variation forms; augmented sixth, Neapolitan sixth and full dimınished seventh chords; modulatory procedures; orchestration for strings and woodwinds, music literature emphasizing Classical and Romantic music. Five class hours per week. PREREQUISITE: MUTC 1006. [1006-1]
3002. Comprehensive Musicianship V. (4). Continuation and development of 3001; study of third relationships, ninth, eleventh, and thirteenth chords; parallel harmony, impressionistic techniques; orchestration for brass, scoring chords for full orchestra, transcribing piano music; formal analysis stressing rondo, sonata, and specific ternary forms; music literature emphasızing late Romantıc and Impressionistic music. Four class hours per week. PREREQUISITE: MUTC 3001. [1004-1]
3003. Comprehensive Musicianship VI. (4). Continuation and development of all previous Comprehensive Musicianshıp courses; varied orchestration analysis and exercises; formal analysis of concertos, fugues and unique forms; introduction to twentieth century techniques including quartal harmony, pandiatonicism, serial and avant-garde techniques; stylistic perspectives of music literature. Four class hours per week. PREREQUISITE MUTC 3002. [1006-1]
3103. Advanced Orchestration. (3). Arranging of piano, organ, and choral compositions for full orchestra and chamber ensembles. PREREQUISITE: MUTC 3003. [1004-1]
3104. Band Arranging. (3). Transcriptions of selected works for band and wind ensemble; stage band arranging PREREQUISITE: MUTC 1006. [1004-1]
3105. Sixteenth Century Counterpoint. (2). A study of the modal contrapuntal technique of the sixteenth century; writing in two and three parts in the style of Palestrina and Lassus analysis. PREREQUISITE: MUTC 1006. [1004-1]
3106. Eighteenth Century Counterpoint. (2). (3029) A study of contrapuntal techniques of the eighteenth century; writing in two or four parts canon and fugue. PREREQUISITE: MUTC 1006. [1004-1]
3108. Twentieth Century Counterpoint. (2). Contrapuntal techniques of the twentieth century; analysis of serial techniques in contemporary style. PREREQUISITE: MUTC 3105 or 3106. [1004-1]
4101. Compositional Techniques of the Twentieth Century. (3). A writing course employing the harmonic and contrapuntal techniques and devices from Debussy to the present [1004-1]
4102. Commercial Music Work shop. (1-3). A study of musical styles for various sizes of instrumental groups; writing for commercials arranging; recording studio techniques. For instrumentalists and arrangers. May not be repeated for the purpose of changing the grade originally given. PREREQUISITE: permission of the instructor. [1004-1]
4103. Pop Singing and Arranging. (1-3). A Study of pop singing styles, emphasizing arranging, ensemble techniques, diction, phrasing, recording studio techniques May not be repeated for the purpose of changing the grade originally given. [1004-1]
4104. Pedagogy of Theory. (3). A practical course in
classroom procedures. Demonstrations by studen and instructor in teaching the rudiments of musi stylistic and structural analysis, and ear-trainin PREREQUISITE: MUTC 3003. [1004-1]
4105. Analytical Techniques. (3). Technıques analysis of styles and structures of music from periods of music. [1004-1]
4202. Seminar: Music Theory and Analysis. (3). A advanced course in theory, counterpoint, analysis of literature Contrapuntal and harmo techniques. Research; theoretical problems from pedagogical point of view; writing in strict and fr styles. Recommended as a review course graduate students. PREREQUISITE: permission of th instructor. [1004-1]
4203. Critical Studies in Music. (3). Directed r search in music theory, history and literature; a stud in depth related to the major concentration area required of theory majors; term paper. [1004-8]
4501. Composition. (2 or 4). Composition in varie forms for large and small ensembles and sol instruments; analysis of coritemporary works an practical application of techniques. May be repeate for additional credit. PREREQUISITE: recommenda tion of the upper division examining committee NQTE: Composition is taught as applied musio Students receive the equivalent of one hour lessor per week. The fee for this instruction is $\$ 50.00$ pe semester [1004-8]
4502. Composition for Non-Composition Majors (3). Class instruction in free composition for student not majoring in composition. Practıcal experience ir idea generation, form, development, and instrumen tation. PREREQUISITE MUTC 3002. NQTE: Composi tion is taught as applied music. Students receive the equivalent of one half-hour lesson per week. The fe for this instruction is $\$ 25.00$ per semester. [1004-8
4511. Intermediate Electronic Music. (2). Empha sis on study of basic tape manipulation, synthesize operation, musique concrete; study of history an aesthetics of electronic music. The two hours credi earned from this course may be utilized as composi tion credit toward the composition concentration PREREQUISITE: MUTC 1006 or permission of in structor. FEE: \$50. [1004-8]
4512. Advanced Electronic Music. (2). Continua tion of studies started in MUTC 4511. Emphasis or individual compositional projects. This course may be repeated for credit, but only two hours credit earne may be utilized as composition credit in the composi tion concentration. FEE: $\$ 50$ [1004-8]
4599. Senior Composition Recital. (nc). [1004-8]

## K304 MUSIC HISTORY, LITERATURE, AND APPRECIATIQN (MUHL)

1101. Music Appreciation. (3). An introduction th music through a study of its literature and history significant compositions are oriented to their prope social, cultural, economic and political settings it order to bring about the most effective understanding and enjoyment of the music. Qpen without prere quisite to non-music majors. [1006-1]
1102. Jazz Appreciation. (3). An introduction t jazz with the emphasis concentrated on the natur and processes of jazz and particularly on its historica background and development in the United States Qpen to non-music majors. [1006-1]
1103. Afro-American Music.(3). A survey of Wes African music and the American music derived fron it. Appreciation of the complex melodic-polyrhythmi improvisational style of African music and its rela tionship to Brazilian, Caribbean, and North Ameri can Negro music. [1006-1]
1104. History of Music to $\mathbf{1 7 0 0}$. (3). A study of th development of the significant musical styles witl special attention to the individual contribution of th major composers. PREREQUISITE: MUTC 1006 o permission of the instructor. [1006-1]
1105. History of Music Since 1700. (3).
continuation of MUHL 3301 . PREREOUISITE: MUTC 1006 or permission of the instructor [1006-1] 4001. Piano Repertory. (3). A survey of stringed keyboard repertory from Bach and his contemporaries to the present. Representative works will be analyzed in regard to historical, stylistic, formal and aesthetic features. PREREOUISITE: junior standing in music or permission of the instructor. [1004-8]
1106. Song Repertory 1. (2). Basic repertore of old Italian aırs and German lieder, as well as an introduction to the French repertoire of the nineteenth century. [1004-8]
1107. Song Repertory 11. (2). The French art song and solo vocal works of other nationalistic schools, as well as English and American song literature.
[1004-8]
1108. Survey of Chamber Music for Piano. (2). A study of the development of works for piano and one other instrument, piano trios, piano quartets and quintets; stylistic analysis of works from the classic, romantic, impressionistic, early 20th century, and avant-garde repertory. PREREOUISITE: permission of instructor. [1004-8]
1109. Medieval Music. (3). The history of music from classical antıquity to c. 1400 [1004-1]
1110. Renaissance Music. (3). The history of music from 1400 to 1600. [1004-1]
1111. Baroque Music. (3). The age of the basso continuo, 1580-1780, opera and oratorio, instrumental forms, keyboard music, and performance practices. PREREOUISITE: MUHL 3301 and 3302 or permission of instructor [1004-1]
1112. Classic Music. (3). Rococo and Preclassic music in England, France, Italy, Spain and Germany: The Viennese classical tradition. PREREOUISITE MUHL 3301 and 3302 or permission of instructor.
[1006-1]
1113. Romantic Music. (3). The development of romanticism in music from late Beethoven through Bruckner. PREREQUISITE: MUHL 3301 and 3302 or permission of instructor [1006-1]
1114. Music in the Twentieth Century. (3). Music since Debussy and Mahler with emphasis on current developments and techniques PREREOUISITE. MUHL 3301 and 3302 or permission of instructor.
[1006-1]
1115. The Opera and Music Drama. (3). A survey of the opera before Richard Wagner; study of Wagner's music dramas and operas of his contemporaries; dramatic and musical significance of each phase of the development of the two forms PREREOUISITE: MUHL 3301 and 3302 or permission of instructor
[1004-1]
1116. Comparative Arts. (3). Cultural activities in their interrelation with each other and with corresponding historic and economic events. Open without prerequisite to non-music majors of junior and senior standing. [1004-9]
1117. Introduction to Commercial Music. (3). A survey of the music industry including copyright, royalties, producing, labor relations, promotion, advertising, and distribution. [1099-1]
1118. Proseminar in Commercial Music. (3). A study of commercial music in a format of lecturers and distinguished guests from the industry. Individual projects are required PREREOUISITE MUHL $4602 / 6602$ or permission of instructor [1099-1]

## K316 SACRED MUSIC (MUSA)

4001. Judeo-Christian Music. (3). History of church music from the 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 the present day temples. Music for sabbath and festival services. [1006-1]
4002. History of Liturgies. (3). A study of the services of the liturgical churches and the music used
generally and specifically by these churches
[1006-8]
4003. Hymnology. (3). A study of hymns, their authors, composers, and role in liturgical churches
[1006-8]
4004. Service Playing. (3). Designed to give the student practical keyboard work in performance of the basic music used in liturgical and non-liturgical services. Includes keyboard harmony, modulation and simple improvisation. NOTE: This course is taught as applied music. Students receive the equivalent of 2 half-hour lessons per week. The fee for this instruction is $\$ 50.00$ per semester [1004-8] 4102. Church Choir and Console Conducting. (3). instruction in the techniques of conducting for both adult and youth or children's choirs designed to meet the needs of all church music majors, directors and combination organist-directors who must conduct and play simultaneously NOTE. This course is taught as applied music. Students receive the equivalent of 2 half-hour lessons per week. The fee for this instruction is 550.00 per semester. [1004-8]
4005. Basic Organ Improvisation. (2). This course is designed to allow the student to gain 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 and reading from figured basses. PREREOUISITE: permission of instructor. [1004-8]
4006. Church Choir Organization and Training. (3). Designed to provide devices and materials for recruiting choir members of vartous age groups and for integrating them into an active musical program.
[0832-8]

## 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 possible to be assured a place with the requested teacher Practice facilities are provided without charge, but there are additional fees for the individual lessons
All music majors 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 instruction where staff time is available. If accepted for applied instruction, full-time, non-music majors must simultaneously enroll and actively participate in a large musical organization sponsored by the Department of Music. For additional detals, see LARGE MUSICAL ORGANIZATIONS in this sec. tion of the Bulletin.
FEES: In addition to the regular student fees, all persons takıng applied music will be assessed $\$ 25.00$ for each half-hour lesson. Students registering for one (1) semester hour credit will receive one half-hour lesson per week All others will recelve one hour lesson per week regardless of credit hours
REGISTRATION Students will register for lessons in the same manner and at the same time as they register for other courses, however, a student may not be assigned to a course number until he has auditioned Auditions are held in the Music Building during the pre-college counseling, advising and registration periods before each semester. Auditions may be scheduled in the Music Office, Room 123, Music Building Any inquiries concerning credits or course numbers should be directed to the chairman of the Department of Music.
CREDITS AND GRADES A student may register for one or two hours credit per semester and will be assigned to individual lessons, a master class, or a
combination of the two, commensurate with his level of performance. Additional credit may be earned at the lower division and upper division level. Students earning more than two credits per semester will be assigned additional practice and will be expected to perform at a higher level than those students registered for fewer credits Grades are awarded on the same basis and have the same significance as in other subjects
EXAMINATIONS For an examınation in applied music, each student will prepare and perform for members of the faculty of the Department of Music suitable musical selections and technical exercises of a grade of difficulty appropriate to his standing Examinations are held in designated rooms on days set aside for this purpose near the end of each semester. Credit for the course will not be awarded to any student who fails to take the examination
0001 . Applied Music Workshop. (NC). All music majors are required to take this course each semester they are registered in the University to a maximum of seven semesters. Attendañce at 12 recitals per semester is required [1004-1]

## MAJOR GROUP INSTRUCTION

Any student of the University may audition for lessons at the major group level except in organ, organ students must have the ability to play the piano before beginning organ instruction A student may not receive more than four hours credit in any one area of major group instruction. The fee for major group instruction will be the same as for one halfhour lesson per week $\$ 2500$ per semester.

## LOWER DIVISION COURSES

Applied music courses in the lower division include the study normally carried out during the freshman and sophomore years The piano or instrumental student at this level should have had several years of intensive study prior to University entrance so that he has a secure, reliable, and well-grounded technique on his instrument Organ students may begin at this level provided that they play the piano well and have reasonable ability in sight reading Those who do not meet this requirement will register for Piano MUAP 1310. To be admitted to lower division study a student must first pass a qualifying examination

Students who fall short of the requirements for admission to the lower-division courses will be advised to register for major group instruction until deficiencies are elımınated Course numbers will be repeated for each semester of study

## UPPER DIVISION COURSES

Promotion to the upper division does not follow automatically after the completion of four semesters of courses in the lower division but is made only on the recommendation of the upper division examining committee; such a recommendation will be made only if the student's proficiency as a performer bears promise of future artistic and professional qualities as a soloist. It is at this level that the student normally begins preparation for a recital.

## JUNIOR AND SENIOR RECITALS

Most degree plans include a junior and/or a senior recital. Degree requirements for the Bachelor of Music degree are listed on page 68, for the Bachelor of Music Education degree on page 80; and for the Bachelor of Arts degree on page 70. To register for recital credit, a student must be enrolled in upper division applied music.
All required recitals must be approved by the faculty This is normally accomplished no later than two weeks prior to the scheduled date at which time the entire program is performed for a faculty committee. Only upon successful completion of this hearing may a student confirm the scheduled date and make arrangements for the printing of the program.
Bachetor of Music majors with concentration in accompanying must accompany two full recitals or the equivalent.

PREREQUISITE: participation in jury examınation for woodwinds, brasses, and strings. Student should register for the semester he intends to complete requirement

For detaıls regarding recommended and/or required recital literature see the Memphis State University Music Department Handbook.

## VI. SMALL ENSEMBLES <br> AND CHAMBER MUSIC

Advanced students are encouraged (and for certain degree plans are required) to participate in the following groups. Selection for membership is based on audition; courses may be repeated with the approval of the student's advisor. Three one-hour meetings per week.
3101. Brass Ensemble. (1). [1004-8]
3102. University Jazz Band. (1). [1004-1]
3103. Jazz Combo. (1). A practical application of basic jazz improvisation technıques. PREREOUISITE MUTC 2101 or permission of instructor [1004-8]
3301. Chamber Music for Pianists. (1). Applied work in piano ensembles, chamber music, and accompanying for woodwinds, brasses, strings, and vocalists. May be repeated for credit up to 6. [1004-8]
3401. Percussion Ensemble. (1). [1004-8]
3402. Contemporary Chamber Players. (1).
[1004-8]
3403. Orff Ensemble. (1). Ensemble for exploring, sightreading, and performing advanced repertory written for Orff instruments; pleces for recorder ensemble; modal compositions in elemental style for xylophones, metallophones, glockenspiels, and unpitched percussion instruments; contemporary liter ature. [1004-8]
3501. String Ensemble. (1). [1004-8]
3502. Collegium Musicum: Strings. (1). Study of the techniques and literature of early stringed instruments, using lute and viols. Performance of appropriate early music. NOTE: May be repeated for credit, but not for the purpose of improving grade originally given. PREREQUISITE: permission of instructor [1004-8]
3601. Camerata Singers. (1). Small Choral Ensemble. Chamber repertory from Renassance to present. Open to music majors and non-music majors through audition [1004-8]
3602. Opera Workshop. (1-6). [1004-1]
3603. Opera Soloists. (1). [1004-8]
3604. Opera Production Laboratory. (1-6).
[1004-8]
3701. Woodwind Ensemble. (1). [1004-8]
3702. Collegium Musicum: Winds. (1). Study of the techniques and literature of early wind instruments, using recorders, transverse flutes, shawm, krummhorn, etc. Performance of appropriate early music NOTE: May be repeated for credit, but not for the purpose of improving grade originally given. PREREQUISITE: permission of instructor [1004-8]

LARGE MUSICAL ORGANIZATIONS
[1004-1]
Music majors* are required to participate in a large musical organization during each semester as a fulltime student and/or when enrolled in applied studio study, with the exception of the semester in which the student is enrolled in practice teaching. Wind and percussion performers are to participate in an instrumental ensemble, string performers are to participate in orchestra; and vocal and keyboard performers are to participate in a choral organization. Transfer students lacking ensemble credits may partially fulfill their obligations by participating in small ensemble groups with permission of the department chairman. Selection for membership is based on audition; courses may be repeated with the approval of the student's advisor. Three one-hour meetings per week. [1004-1]
*Pianists with concentration in Performance, Pedagogy, or Accompaniment are required to have 6 semesters of major ensemble
2001. University Concert Band. (1).
2002. Marching Band. (2).
2003. University Glee Club. (1).
3004. University Wind Ensemble. (1).
3005. University Orchestra. (1).
3006. University Chorale. (1).

001 University Chorale 002 University Concert Choir
3007. Opera Chorus. (1).
3008. Oratorio Chorus. (1).

APPLIED MUSIC COURSES [1004-8]

| Instrument | Major Group Instruction (2) [1004-8] | Lower Division (1-4 each) [1004-8] | Upper Division (1-6 each) [1004-8] | $\begin{aligned} & \text { Junior Recital } \\ & \text { (NC) } \\ & {[1004-8]} \end{aligned}$ | $\begin{aligned} & \text { Senior Recital } \\ & \text { (NC) } \\ & {[1004-8]} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Trumpet | 1110 | 1111 | 4111 | 4118 | 4119 |
| Horn | 1120 | 1121 | 4121 | 4128 | 4129 |
| Trombone | 1130 | 1131 | 4131 | 4138 | 4139 |
| Tuba | 1140 | 1141 | 4141 | 4148 | 4149 |
| Piano | 1310 | 1311 | 4311 | 4318 | 4319 |
| Harpsicord | - | 1321 | 4321 | 4328 | 4329 |
| Organ | - | 1331 | 4331 | 4338 | 4339 |
| Accompanying | - | - | - | 4348 | 4349 |
| Percussion | 1410 | 1411 | 4411 | 4418 | 4419 |
| Violin | 1510 | 1511 | 4511 | 4518 | 4519 |
| Viola | 1520 | 1521 | 4521 | 4528 | 4529 |
| Cello | 1530 | 1531 | 4531 | 4538 | 4539 |
| Bass | 1540 | 1541 | 4541 | 4548 | 4549 |
| Guitar | 1550 | 1551 | 4551 | 4558 | 4559 |
| Harp | 1560 | 1561 | 4561 | 4568 | 4569 |
| Viola de Gamba | 1570 | 1571 | 4571 | 4578 | 4579 |
| Voice | 1610 | 1611 | 4611 | 4618 | 4619 |
| Flute | 1710 | 1711 | 4711 | 4718 | 4719 |
| Oboe | 1720 | 1721 | 4721 | 4728 | 4729 |
| Clarinet | 1730 | 1731 | 4731 | 4738 | 4739 |
| Saxophone | 1740 | 1741 | 4741 | 4748 | 4749 |
| Bassoon | 1750 | 1751 | 4751 | 4758 | 4759 |
| Recorder | 1760 | - | - | - | - |

## K313 MUSIC EDUCATION (MUSE)

NOTE: Numbers in parentheses to the right of title are former course numbers. If credit has been earned for the former number, it may not be earned for the same course with the new number.
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 only one of these areas. School Music (choral emphasis) applicants should be able to play piano accompaniments of average difficulty, should possess an adequate solo voice for school music purposes, and
should schedule courses in a wide variety of choral activities. Instrumental Music applicants may satisfactorily meet piano and voice requirements with completion of MUSE 1108 and MUSE 1113, with their prerequisites Study in one instrument 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.
1101. Class Instruction in Brass Instruments. (2). Basic performance skills and teaching techniques on trumpet, trombone, and French horn for those who intend to teach instrumental music in public school
[0832-1]
1103. Class Instruction in Percussion Methods. (2). Basic performance skills and teaching techniques on snare drum, tympani, and keyboard percussion instruments for those who intend to teach
instrumental music in public school. Two laboratory hours 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 instrumental music in public school. Two laboratory hours per week. [0832-1]
1105. Class Instruction in Piano. (1). Basic technique, with emphasis on sight-reading. Iwo labora tory hours per week. [1004-1]
1106. Class Instruction in Piano. (1). Playing of songs used in school music teaching; community songs, and hymns. Two laboratory hours per week. PREREQUISITE: MUSE 1105. [1004-1]
1107. Class Instruction in Piano. (1). Simpler Bach chorales, more difficult songs, and accompaniments, appropriate to the student's major field, memorization optional. Two laboratory hours per week. PREREQUISITE: MUSE 1106. [1004-1]
1108. Class Instruction in Piano. (1). Selected easier studies and compositions by Czerny, Concone, Beethoven, Chopın, Schumann, Bartok, and others. The final examination will include materials to satisfy the requirements for the piano proficiency examination, copies of which are available in the music office. Two laboratory hours per week. PREREQUISITE: MUSE 1007. [1004-1]
1109. Class Instruction in Stringed Instruments. (1). Basic performance skills and teachıng techniques on violin, viola, cello and bass for those who intend to teach instrumental music in public school. Two laboratory hours per week. [0832-1]
1110. Class Instruction in Stringed Instruments. (1). Continuation of 1109 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 student's ability. May be repeated once for additional credit. [1004-1]
1112. ClassInstruction in Voice. (1). Fundamentals of vocal production useful for all music teachers. Iwo 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 choral music ensembles. PREREQUISITE: MUTC 1005. Qpen only to music majors or by special permission of instructor. [0832-1]
3001. Classroom Music Methods I. (3). Required of all Elementary Education majors. Experiences in singing, moving, listening, performing, and describing simple music appropriate for use in the elementary school. [0832-1]
3002. Classroom Music Literature. (3). Experiences with planning and teaching contemporary music methodologies including those of Qrff, Kodaly, Contemporary Music Project, and the Manhattanville Project PREREQUISITE: MUTC 1006 or permission of instructor [0832-1]
3700. Basic Conducting. (2). Development of conducting skills. Basic baton principles, rhythmic analysis, expressive techniques, phrasing, and multmetered problems. Class meetings require performing as instrumentalist or vocalist as well as conductor. Three class hours per week. PREREQUISITE Completion of MUTC 3001. [1004-1]
3702. Score Reading. (3). (3239). Realization of open score at the keyboard, vocal scores, small orchestra and large orchestra scores; clefs, transpositions, etc.; employing literature from varıous perıods of music history. [1004-8]
4001. Orff-Schulwerk Workshop for Classroom Teachers. (3). A broad, practical introduction to the use of the Qrff-Schulwerk method of elementary music teaching. Development of performance leadership skills stressed. Not open to music majors. PREREQUISITE: one course in music methods or equivalent experience. [0832-1]
4002. Orff-Schulwerk Workshop for Classroom Teachers II. (3). Second level Qrff-Workshop course for non-music majors. Emphasis is placed on the process of teaching; includes rhythmic training, elementary solfeggio, exploration of folk song materials suitable for children, and development of lesson plans. PREREQUISITE: MUSE 4001 and rudimentary skills on soprano recorder. [0832-1]
4201. Special Problems in the Teaching of Music. (1-3). This course provides for class or individual study of the problems and opportunities faced by the person who teaches music in the schools; for classroom teachers, music teachers and supervisors, prin cipals, and administrators. [0832-8]
4202. Materials and Methods of Music, Grades K6. (3). A study of the aims and princıples of music and of the traditional and contemporary methods of teaching in the elementary schools Creative approach to rhythm, listening, instrumental and singing activities. Contemporary systems of music teaching for elementary grades will be surveyed [0832-1]
4203. Classroom Music in Secondary Education. (3). Philosophy, methods, and materials for teaching non-performance music classes in secondary school (grades 7-12); general music, theory, appreciation, related arts, history and/or music literature, conducting. Includes demonstration, observations, and simulation of classroom teaching at this level.
[0832-1]
4204. Instrumental Music in Elementary and Secondary Education. (2). Designed to prepare the public school instrumental teacher to teach basic music concepts to beginners in mixed instrumental group settings. Instruction methodologies and materials, simple instructional arranging, instrument assignment, and instrument maintenance will be stressed Lab experience. PREREQUISITE: Junior standing in music. [0832-1]
4205. Marching Band Techniques. (2). Qrganizing and conducting the marching band; gridiron charting and marching procedures with a study of precision drill, formations and pageantry. PREREQUISITE: permission of the instructor. [1004-1]
4206. Music for Exceptional Children. (3). A review of the types of exceptional children and the implicatıons for providing realistic musical activities in the classroom. Emphasis will be placed on the 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). PREREQUISITE: SPER 2000 for music education majors; MUSE 3001 for special education majors; or permission of instructor. [0832-9]
4207. Choral Methods and Materials. (2). An examination of 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. PREREQUISITE: junior standing in music. [0832-1]
4301. Choral Arranging. (3). A practical experience in making arrangements for choral ensembles and organizations. A study of vocal need involved and techniques of meeting them, including class performance and evaluation of assigned projects. [0832-1]
4401. Music Education: Philosophical Foundations. (3). Historical, philosophical, psychological, social, and aesthetic foundations of the total education programs, grades $K$ through 12. Adminstrative procedures and problems. The music educator's role in the community. Evaluative techniques. [0832-1] 4501. Basic Piano Pedagogy. (3). Emphasis on elementary piano methods including Pace, Suzuki,
and class techniques. PREREQUISITE: permission of instructor. [0832-8]
4503. Advanced Piano Pedagogy. (3). Approaches to the teaching of plano technique, repertory, and musicianship. For upper division keyboard majors. PREREQUISITE: upper division level in keyboard.
[0832-
4504. String Pedagogy. (3). A study of various methods of teaching strings with special emphasis on contemporary theories of pedagogy; observation and laboratory teaching in MSU String Preparatory and the Suzuki Talent Education Divisions. For string majors. PREREQUISITE: permission of the instructor.
[0832-
4505. Principles of Accompanying. (3). A performance class involving practical study of instrumental and vocal standard repertory and the problems of ensemble playing. The course develops facility in sight-reading and the ability to assimilate music rapidly. Score-reading transposition and figured bass realization are introduced as skills necessary to well rounded musicianship. PREREQUISITE: permission of instructor [1004-8]
4506. 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). A study of repertory materials suitable for fundamental teaching as well as methodology in techniques, analysis and registrational concepts. PREREQUISITE: permission instructor [1004-8]
4700. Instrumental Conducting. (2). (3701). Study of the various problems encountered preparation and conducting of instrumental scores individual practice with the opportunity for eac student to conduct instrumental groups. Three class hours per week. PREREQUISITE: MUSE 3700.
[1004-1]
4701. Choral Conducting. (2). A study of the various problems encountered in preparing and conducting traditional and contemporary vocal scores; rehearsal techniques; individual practice with laboratory groups. Three class hours per week. PREREQUISITE: MUSE 3700. [1004-1]
4799. Conducting Recital. ( nc ). [1004-8]
4801. Teaching Music Comprehensively. (3). A methods course designed to bring music theory, history, literature, performance, composition, and analysis to bear on the teaching of music at any level-elementary, junior high, high school, college, and private studio [0832-1]
4802. Introductory Workshop in Orff-Schulwerk. (3). A study of basic Orff-Schulwerk techniques including body movement, soprano recorder, percussion, vocal performance, improvisation and arrang. ing. PREREQUISITE: junior standing in music education or equivalent experience. [0832-1]
4803. Intermediate Workshop in Orff-Schulwerk (3). A study of intermediate level Orff techniques including modal harmonization, irregular rhythms, alto recorder performances and more extensive improvisation and arranging. PREREQUISITE: MUSE 4802 or its equivalent in experience. [0832-1]
4804. Teachers Workshop in Orff-Schulwerk. (3) A study of advanced Orff-Schulwerk techniques including original composition, complex form, move ment and instrumental arrangements, tenor and bass recorders performance, and advanced improvisation PREREQUISITE: MUSE 4803 or its equivalent ir experience. [0832-1]
4805. Workshop in Double Reed Techniques. (3) For students who are not specialists on oboe or bassoon; pedagogical and technical problems peculiar to double reed instruments; reed-making and adjusting. A set of tools basic to making reeds is required. [0832-1]

# THEATRE AND COMMUNICATION ARTS <br> PROFESSOR MICHAEL M OSBORN, Chairman 

Room 143, Theatre and
Communication Arts Building
he Department of Theatre and Communication Arts ffers concentrations in general speech; radio-elevision-film; rhetoric and communication arts; and heatre; the requirements for these are listea on page O; for the B.F.A., on page 67.
Students planning to pursue graduate education in peech pathology and/or audiology should be aware if the fact that they will need 18 semester hours in he basic areas that relate to communication science. Fuch areas include: human anatomy, physiology, and fevelopmental psychology. Students wishing further nformation about the graduate program in the Cepartment of Audiology and Speech Pathology hould contact that department's chairman for adisement.

NOTE: Students may take theatre and communicaion arts laboratory courses (vis. COMM 3301, THEA 2541, 3542) as often as advisor will allow. None of hese courses may be repeated for the purpose of mproving the grade originally given.

## K 491 THEATRE (THEA) <br> Dr. Richard A. Rice, Director

1411. Interpretation of Literature in Performance. 3). An introduction to the interpretation of literature n performance Designed to develop and heighten he performer's responsiveness to his literary text.
[1007-1]
1412. Introduction to Theatre. (3). A consideration pf all the dramatic elements of the theatre from the riewpoint of the audience. Discussions of theory and practice focus on plays attended by the class during the semester (See THEA 3541 -008). [1007-1]
1413. Introduction to Design. (3). Historical and conceptual survey of the basic elements of pro-duction-scenery, costumes, lightıng, sound-and heir relation to the theatrical production process.
[1007-1]
1414. Stage Movement. (3). An introduction to movement as a basic element of the actor's craft. This course focuses on the recognition, development, and understanding of natural physical actions and rhythms and their application to the stage. [1007-1] 2502. Theatre Dance. (3). Introduction to elements of movement patterns and rhythms for the stage. PREREQUISITE: THEA 2501. [1007-1]
1415. Theatre Crafts. (3). A lecture/laboratory course covering all phases of the craft skills and equipment involved in technical theatre. The care and maintenance of the equipment is emphasized as well as its safe practical and proper application. [1007-1]
1416. Introduction to Theatre Graphics. (3). An introduction to the artistic graphic communication processes of technical theatre. Includes methodology and importance of beginning sketching; draftıng; costume, set, and light design; as well as poster and program graphics. [1007-1]
1417. Stage Make-up. (3). Fundamentals of straight and character make-up. The application of the principles governing line, color, and light and shade of make-up problems. Practical experience in make-up through various productions NOTE: Students who have received credit for SPCH 2541 may not recelve credit for THEA 2515. [1007-1]
1418. Acting for Non-Majors. (3). Introduction to the craft of actıng The development of the actor's individual potential through basic technique. Performance of short scenes in class. [1007-1]
1419. Basic Acting Techniques. (3). The first essential of acting study is the exploration of the
actor Class exercises designed to develop relaxation, concentration, imagination, and improvisation skills. [1007-1]
1420. Character Development. (3). Principles of role analysis through the study of subtext, character motivation, and objectives. PREREOUISITE: THEA 2531 or permission of instructor [1007-1]
3411 . Performance of Poetic Forms. (3). An indepth study of poetic literature as interpreted by the performer. Designed to develop and heighten the performer's sensitivity to language styles and rhythms. NOTE: Students who have received credit for SPCH 2411 will not be allowed credit for THEA 3411. [1007-1]
1421. Interpretation Experiments. (3). An intensive study of the theatrical image. Creative exercises in the imaginative use of space, time, and experımental script materials in directing for the stage. NOTE: Students who have recelved credit for SPCH 2412 will not be allowed credit for THEA 3412. [1007-1]
1422. Directing Interpreter's Theatre. (3). Theory and techniques in the staging of experimental forms; poetıc, narrative, and compiled scripts. [1007-1]
1423. Interpretation of Black Literature. (3). Principles and practice relative to the oral interpretation of poems, speeches, and plays written by Black Americans. PREREQUISITE: THEA 1411.[1007-1]
1424. Stage Combat. (3). Study and practice of techniques for physical conflict including fencing, staged fights, tumbling, and general military arts. Offered alternate years. PREREQUISITE: THEA 2501
[1007-1]
1425. Mime Basics. (3). Exercises in isolation and articulation of the body; motion and stillness; imagination study; classic French and modern technıques. PREREQUISITE THEA 2501. [1007-1]
1426. Stagecraft I. (3). A lecture/laboratory class to include theatre terminology, theatre forms. production organization, job descriptions, and safety Scenery construction to include paintıng, flat scenery, three-dimensional scenery, and an introduction to steel materials. There is required lab work. PREREQUISITE: THEA 2511 or 2512. [1007-1]
1427. Stagecraft II. (3). A lecture/laboratory class including shifting scenery, flying, and rigging. Also properties design and construction. Lectures and demonstrations on color in the theatre and scenery painting equipment and methods. There is required lab work. PREREQUISITE: THEA 3511. [1007-1]
1428. Lighting and Sound Mechanics. (3). An introductory study of the technical principles which support the areas of theatrical lighting and sound design. Topics include: instrumentation and equipment, electricity and electronics, control systems, operatıonal and maıntenance princıples and procedures for stage electricians and sound engıneers. NOTE: Students who have received credtt for SPCH 4511 may not receive credit for THEA 3513
[1007-1]
1429. Directing. (3). A study of the basic organizational techniques of stage direction. [1007-1]
1430. Lyric Theatre. (3). Analysis of earlier and related music-theatre forms, but focus is on the "musical" as a unique theatrical form. Selected scenes directed and performed [1007-1]
1431. Scene Study. (3). The development of ensemble work within scenes. PREREQUISITE: THEA 2532. [1007-1]
1432. Advanced Scene Study. (3). Contınuation of 3531. Special attention to material from modern classics PREREQUISITE: THEA 3531 [1007-1]
1433. Performance Laboratory. (1-3). Practical application laboratory for performance courses and special workshops (Repeatable for credit) [1007-8] 001. ACTING TECHNIQUES (1). To be taken
in conjunction with $2531 / 2532$ - Section 1
only
1434. ACTING TECHNIQUES (1). To be taken
in conjunction with $2531 / 2532-$ Section 2 only.
1435. SCENE STUDY. (1). To be taken with 3531/3532 on/y.
1436. STYLES (1). To be taken with $4531 / 4532$ or $6531 / 6532$ on/y.
1437. AUDITION PREPARATION (1). Weekly meetıng to review/critique actors ${ }^{\circ}$ audition choices and progress.
1438. VOICE TECHNIQUES (1). Both for COMM 1211 additional practical experience, and for students seeking cricical review and help with preparation and delivery of musical pleces.
1439. STAGE MANAGEMENT. (1) Several lecture and training sessions precede actual assignment to departmental productions Stage managers work closely with the directors and oversee the entıre backstage operation during the production run
1440. ANALYSIS (1). Critical perceptions of Performance (and Production) skills developed through written critiques Students evaluate at least 5 theatrical productions (afternoon or evening). May be taken in conjunction with THEA 1551. Guidelines of critique content/format avallable in Theatre Office (143).
1441. NON-MAJORS. (1). For students (not theatre majors) who are, or wish to become, involved in Season or Lunchbox productions A theatre faculty member helps students prepare for auditions.
1442. TV/FILM. (1). To be taken with 4631 / $6631 \mathrm{on} / \mathrm{y}$
1443. TOURING. (1). In conjunction with departmental ensemble groups on/y.
1444. MUSIC-THEATRE WORKSHOP (1). To be taken with THEA 3523 (Lyric Theatre), or as part of Summer Program.
1445. TOURING. (2). In conjunction with departmental ensemble groups on/y
1446. MUSIC-THEATRE WORKSHOP (2). Summer Program.
1447. MUSIC-THEATRE WORKSHOP Summer Program.
1448. Production Laboratory. (1-3). Preparation for and participation in departmental theatre productions. Individualized work is in the form of supervised laboratory situations. Running crews for season productions selected from participating sections May be repeated for credit [1007-8]
1449. PUBLICITY. (1).
1450. COSTUMES (1)
1451. LIGHTS (1)

004 SOUND (1)
005. SCENERY (1)

006 PROPS (1).
007. MAKE-UP (1).
008. HOUSE MANAGEMENT. (1).
009. SPECIAL EFFECTS (2). Instruction in how to safely create stage fires, explosions, smoke, rain/snow, thunder, hightning, supernatural illusions, etc. Offered alternate years. PREREQUISITE: permission of instructor
010. SOUND SYSTEMS AND DESIGN (3). Classes and lab work. Basic electronics and system hookups. Actual equipment use and aesthetics Offered alternate years. PREREQUISITE: permission of instructor
3561. Scene Design. (3) Designed to acquaınt the student with 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. Interpretation of Children's Literature. (3). Study of the adaptation of literature for individual and group performances in children's theatre and in instruction for elementary and secondary schools. Topics include styles of literature, principles of performance, and techniques for performance adaptation. May be repeated tor up to six hours credit with permission of instructor. [1007-1]
4411. Stage Dialects. (3). Study and practice of foreign dialects for the American stage. Offered alternate years. PREREQUISITE: COMM 1211.
[1007-1]
4421. Interpretation of Poetry. (3). Studies in the style and structure of poetry of specific types and periods, as related to the response and performance of the oral interpreter. PREREQUISITE: THEA 3411.
[1007-1]
4431. Interpretation of the Novel. (3). Studies in the oral interpretation of prose fiction, with attention to various literary styles and structures. PREREQUISITE: THEA 3411 [1007-1]
4441. Interpretation of Drama. (3). Oral performance of scenes from classical and modern drama. May be repeated for a maxımum of 9 semester hours credit. [1007-1]
4451. Interpretation of Shakespeare. (3). Studies in the oral presentation of scenes from selected comedies, histories, and tragedies, with exploration of character and dramatic structure. [1007-1]
4501. Advanced Mime. (3). Further development of technique, and refinement of a personal style. Use of mask and the physics of object illusion. PREREQUISITE: THEA 3506 [1007-1]
4502. Ensemble Movement. (3). The performance troupe blends improvisational technıques, voice, mime, acting, and physical movement. PREREQUISITE: permission of the instructor [1007-1]
4503. Creative Dramatics. (3). Basic technıques and theories for the use of dramatization in elementary and secondary education. Topics include socio-drama, dramatization of school subjects and dally concerns. and improvisation and creation of dramatıc plays. [1007-1]
4514. Costume Accessories/Specialties. (3). A lecture/laboratory course emphasizing the correctness of period costume accessories and hand properties as well as their re-creation for modern theatrical productions. Special consideration is given to designer-stylized productions and the problems encountered thereIn. PREREQUISITE: THEA 4562.
[1007-1]
4515. Scene Painting. (3). A lecture/laboratory course covering the techniques of painting scenery for the stage NOTE: Students who have receved credit for SPCH 4563 may not receive credit for THEA 4515. Offered alternate years PREREQUISITE: THEA 3561. [1007-1]
4516. Technical Direction. (3). Lecture/Iaboratory for theatre technicians to include production organization and safety, engineering, rigging, materials control and supply ordering. Offered alternate years. PREREQUISITE: THEA 3512. [1007-1]
4517. Materials and Technology. (3). Lecture/laboratory course with a general introduction to materials to include carpentry and lumber, metal working and welding, fiberglass construction and casting, rigid and flexible foams and thermoplastics Offered alternate years. PREREQUISITE: THEA 3512. [1007-1]
4518. Special Technologies. (3). A lecture/ seminar/practicum in-depth investigation of selected technologies as they apply to theatre. The technologies shall be examined in their natural environment and in their relation to the theatrical environment Topics will be selected from pneumatics, hydraulics, plastics, metalworking, woodworking, rigging, electrical and electronic systems,
computers, and others Offered alternate years. (May be repeated for a maximum of 9 hours credit.) PREREQUISITE: permission of instructor. [1007-1] 4521. Advanced Directing. (3). An opportunity to experiment with directing original plays, adaptations, and period styles. Productions of the class provide the menu for the Lunchbox Theatre program. (May be repeated for a maximum of 6 hours credit.) PREREQUSITE: THEA 3521. [1007-8]
4523. Children's Theatre. (3). Exploration of theories and styles of children's theatre, application of principles to problems in production and preparation of plays designed for children's audiences. May be repeated for up to six hours credit with permission of instructor [1007-1]
4531. Acting Styles. (3). The development of acting styles as influenced by the environments of historical periods. (May be repeated for a maximum of 6 hours credit.) PREREQUISITE: THEA 3532. [1007-8]
4532. Advanced Acting Styles. (3). Continued work in acting styles. (May be repeated for a maximum of 6 hours credit.) PREREQUISITE: THEA 4531. [1007-8]
4541. Internship. (1-12). Supervised work in actual university, community, or professional theatre productions on an internship basis. Credit varies with amount of time and responsibility involved. (May be repeated for a maximum of 16 semester hours.) B.F.A. students to complete full internship of 12 to 16 hours. [1007-8]
4551. Theatre History-Classic. (3). A study of shaping forces and theatrical forms in Western civilization from Greek times to Romanticism. NOTE Students who have received credit for SPCH 3551 may not receive credit for THEA 4551. [1007-1]
4552. Theatre History-Modern. (3). Continuation of 4551 to present NOTE: Students who have received credit for SPCH 3552 may not receive credit for THEA 4552. [1007-1]
4553. Directed Individual Studies in Theatre. 11 3). Designed for the advanced student who wishes to do concentrated study in a specific area of theatre. May be repeated for a maximum of six credit hours PREREQUISITE: permission of the instructor.
[1007-8]
4556. Undergraduate Seminar in Black Theatre. (3). Selected topics in contemporary black theatre. May be repeated up to six hours. PREREQUISITE permission of the instructor. [1007-1]
4562. Costume Design. (3). Application of basic costuming techniques. Historical research, construction, rendering and practical application in production situations. Consideration of design projects, problems, advanced costume construction, and rendering techniques. PREREQUSITE: THEA 1561.
[1007-1]
4564. Scenography. (3). Covers total production design-the coordination of all aspects of costume, scenery, and lighting into the whole of production. (May be repeated for maximum of 6 hours credit.) PREREQUISITE: THEA 4569. [1007-1]
4565. Applied Design. (3). Application of major theatrical styles to selected production problems Emphasis is placed on the selection of elements to recreate period styles for stage design. Offered alternate years. PREREQUISITE: THEA 4564
[1007-1]
4567. Lighting Design. (3). A lecture/ seminar/practicum investigation of the art of theatrical lighting design. Topics include script analysis, design approaches and methodologies, procedures and practices for the working designer, cue techniques, design styles and forms, and criticism of lighting design. Research, project work, and staged scenes required. NOTE: Students who have received credit for SPCH 4512 may not receive credit for THEA 4567. PREREQUISITE: THEA 3513. [1007-1]
4568. Advanced Lighting and Sound Design. (3). A lecture/seminar/practicum investigation of the arts of lighting and sound design. Topics include conceptual development of the design, integration with the
scenographic process, survey of forms and style and special design problems. Practical work on eithe main stage or ancillary productions required PRER QUISITE: THEA 4567. [1007-1]
4569. Styles of Design. (3). Historical evolution and practical approaches to, the major styles production design that domınate contempora theatre. NOTE. Students who have received credit SPCH 3562 may not receive credit for THEA 456 PREREQUISITE: THEA 3561. [1007-1]
4571. Playwriting. (3). A study of the theory an principles of writing plays for the stage. Practice writing either the short or long play. May be repeat for a maximum of 9 semester hours of cred PREREQUISITE: permission of the instructor
[1007
4581. Dramatic Theory and Criticism. (3). Th major documents in dramatic theory and criticisr from Aristotle to the present. [1007-1]
4582. Analysis of Dramatic Literature. (3). Exami ing the script as blueprint to discover and evolve th particular components which lead to its artist fultillment and unity. Advanced techniques director and scenographer used to solve ar tic/practical problems of specific plays. PREREQU SITES: THEA 4551 or 4552. [1007-1]
4591. Theatre Management. (3). A study of basi box office and publicity procedures for the theatr Offered alternate years [1007-1]
4592. Theatre Planning and Architecture. 13 Processes and techniques employed by theatr planners in the design and construction/renovatio of theatrical spaces and structures. Topics inclu survey of theatre forms, historical development theatrical structures and spaces, programmin methods and procedures, specification, renovatio techniques, multi-use structure concepts, and co sultation procedures and practices. Offered alterna years. PREREQUISITE: permission of instructor.
[1007-
4631. Acting for Film and Television. (3). Th course provides educational experience for the act in the media of film and television, concentrating dramatic, commercial and documentary areas PREREQUISITE: THEA 2531 (for acting majors) OR-COMM 3823 or 3824. [1007-1]
4921 . Play Production for Secondary Schools. 1 A survey of the problems of the play director in hig school. The course considers choosing the pla casting, directing, technical aspects of productio then relates these items to the student, the scho and the community. [1007-1]

## K493 COMMUNICATION STUDIES (COMM

 DR. WALTER KIRKPATRICK, Director1211. Voice and Articulation. (3). Principles effective voice usage. Emphasis on improving voi characteristics and diction. [1506-1]
1212. Public Speaking. (3). Study of the principlo of ethical and effective public speaking, with practic in the construction and delivery of original speech in the presence of an audience. [1506-1]
1213. Introduction to Human Communication. 13 Introduction to principles and processes underlyin all human communication. Study of communicatio models, communication purposes and breakdown and variables related to interpersonal, small grou intercultrual, and public communication. [0601-1]
1214. Introduction to Rhetoric and Communic tion Arts. (3). Study of the principles, values, form and effects of persuasive public communicatio Consideration of rhetorical styles and effects speeches, debates, documentaries, and dramatic a entertainment forms. [0605-1]
1215. Media in Modern Society. (3). Consideratio of the development of the technology, industry, a aesthetics of film, radio, and television in relation twentieth-century American society. PREREQUSIT
1216. Introduction to Film. (3). Introduction to the inctions, development and techniques of film as a ne and popular art. Study of film language and forms a means of expression and survey of classic genre Ims i.e., realistic, expressionistic, Hollywood, obsertional, etc. [0605-1]
1217. Argumentation and Debate. (3). The basic rinciples of argumentation with emphasis on eveloping practical skills in analysis, reasoning, vidence, and organization of the argumentative peech. The role of debating in contemporary society stressed. [1506-1]
1218. Persuasive Speaking. (3). Study and practice meeting special demands of the persuasive speech ituation. Advanced training in the use of arguments nd the development of effective style. PREREIUISITE: COMM 1311 or permission of the instrucr. [1506-1]
1219. Black Rhetoric. (3). A study of the speeches nd rhetoric of the black man's struggle in America. mphasis on spokesmen such as Walker, Turner, couglass, Washington, DuBois, Malcolm X, King, farmichael, Baldwin, and Jones [1506-1]
1220. Introduction to Rhetorical Theory. (3). A urvey of theories of persuasion and communication rom ancient to contemporary tımes. Emphasis on the lassic tradition as it related to interpersonal and ocietal communication. [1506-1]
1221. Speech for the Elementary Classroom Teaher. (3). A course designed to improve the speech of eachers. Emphasis is on voice and diction, classoom speaking, and oral interpretation of literature.
[1506-1]
1222. Speech Communication in Organizations. 3). A study of information flow, communication pystems, and communication break-down in contemporary organizations. Especially concerned with pusiness, governmental, and institutional structures.
[0601-1]
1223. Communication in Politics. (3). Study of the ypes of political communication between politicians and constituencies with special emphasis on presidential rhetoric and campaign speaking and communication via mass media. Includes practice in construction of model political speeches. [0601-1]
1224. Speech Communication Laboratory. (1). ndependent and organized preparation for the study and practice of speech communication in nonclassroom situations. Includes inter-collegiate forensic activites as well as community communication orojects. One hour credit each semester for three hours of supervised work per week. [0601-8]
1225. Theories of Persuasion. (3). Examination of the principles underlying any communication designed to influence attitudes or behavior. Topics include approaches to motivation, perception, message structure, attention, reasoning, audience analysis, persuasibility, and attitude change. Items for analysis will be drawn from speeches, advertising, radio, elevision and film. [0601-1]
1226. Discussion. (3). Study and practice of the orinciples and techniques of discussion, dealing with urrent problems of wide interest and significance.
[1506-8]
1227. Freedom and Responsibility of Speech. (3). The development of freedom of speech as a Western alue and the attendant problems of ethical practice, imitations, and responsibility. [1506-1]
1228. Rhetoric in the Contemporary Environment. 3). Study of the speeches and rhetoric generated by najor social and political issues since World War II. Analysis of the significance of rhetoric in developing and resolving the crises surrounding such issues. Consideration of the ethics of contemporary rhetoric. PREREQUISITE: COMM 1781 or permission of the nstructor. [1506-1]
1229. The Rhetoric of Social Protest. A study of the peeches, pamphlets, and rhetorical techniques of
selected advocates of significant social change. Special attention will be given to the symbols, language forms, enthymemes, and means of audience adaptation of the genre of the rhetoric of agitation, protest, and revolution as well as to the role of rhetorical discourse in social change. PREREOUISITE: COMM 1781 or permission of instructor.
[1506-1]
1230. Television and Film Production and Aesthetics I. (4). Basic production skills and theory: audio control, recording, still photography, studio and small-format TV production. Aesthetics of sound and the moving image. Three hours lecture-demo-critique, two hours laboratory. PREREQUISITE: Theatre and Communication Arts major or permission of instructor [0603-8]
1231. Television and Film Production and Aesthetics II. (4). Continuation of COMM 3823. Intermediate production skills and theory: audio mixing including film sound, motion picture photography and editing, graphics, TV production. Aesthetics of the moving image. Production of exercise. Three hours lecture-demo-critique; two hours laboratory. PREREQUISITE: COMM 3823 and either COMM 1781 or 1782. [0603-8]
1232. Fadio Production and Studio Operations. (3). Preparation, production and evaluation of programs, including talk, discussion, interview, music, documentary and special event shows with emphasis on construction, editing, and compilation for broadcast use. PREREOUISITE COMM 3823 or permission of instructor. [0603-8]
1233. Radio-TV-Film and Society. (3). A study of the impact of broadcasting and film on society and the reverse influence of society upon these media. PREREQUISITE: JOUR 1011. [0601-1]
1234. Contemporary Theories of Language. (3). An examination of the influence of language upon behavior, the limitations of language as a communicative system, and the relationship between language and thought. [1506-1]
1235. Interpersonal and Small Group Communication. (3). Advanced theory in the logical, psychological, and sociological investigation of issues in small groups. [0601-8]
1236. History and Criticism of British Public Address. (3). A study and analysis of British speakers and speaking from the 16 th century to the present time. Emphasis will be placed on the speech situation, audience, issues and speakers. Such men as Fox, Pitt, Sheridan, Burke, Disraeli, and Churchill will be considered Repeatable to a maximum of six hours with permission of the instructor. [0601-1]
1237. History and Criticism of American Public Address. (3). An analysis of political, religious and social speaking from colonial times to the present. Such men as Clay, Emerson, Lincoln, Webster, and the Roosevelts will be considered. Repeatable to a maximum of six hours with permission of the instructor [1506-1]
1238. Undergraduate Seminar in Communication Arts. (3). Stresses individual work, preparation of papers and reports, and extensive class discussion; topics vary from semester to semester. May be repeated up to six hours. [1506-8]
1239. International Communication. (3). An analysis of the role of communication, especially rhetorical communication, in the decision-making, information, and propaganda of foreign policy issues. Special emphasis on executive-congressional foreign policy debates, diplomatic rhetoric, and information systems within a foreign policy crisis context. [1506-1]
1240. Rhetorical Criticism. (3). Problems in the theory and criticism of classical and modern rhetorical works; application of the principles of rhetoric to the critical evaluations of current public speaking practice. [1506-1]
1241. Seminar in Interracial Communication. (3). A study of the special problems encountered in
communication between blacks and whites Readings, discussion, and field study on how prejudice, stereotypes and self-concepts can affect communication. Exploration of rhetoric methods to minımize these problems. PREREQUISITE: COMM 2361 or permission of instructor. [0601-1]
1242. Directed Studies in Communication Arts. (3). Independent research in areas of special interest, including rhetoric, radio, television, and film. PRE REQUISITE: permission of area head. [0601-8]
1243. Intercultural Communication. (3). A study of the special problems encountered in communications between people of different cultural backgrounds. The study focuses upon understanding the communicative interaction between and among people with different national/cultural backgrounds and functioning more effectively in multi-cultural settings. [0605-1]
1244. Internship. (1-3). Field studes in communıcation. Supervised practical work with a government institution, film company, or MV station. Written analysis of experience required. PREREOUISITE: permis sion of area head. [0603-8]
1245. Broadcast Regulation and Program Policy. (3). Study of effects of FCC and other governmental regulation upon broadcasting management and station operations. Topics licensing, renewals, content control, obscenity, farness, politics, and copyright. [0603-1]
1246. Radio and Television Programming. (3) Analysis of individual program formats (with examples); use of this information along with ratings and other audience research to study the design of program schedules. PREREOUISITE: COMM 1781, 1782. [0603-1]
1247. Radio and Television Sales and Advertising. (3). The relation of radio and television advertising to the station, network, and station representative; the role of sponsors, agencies, and allied groups. PREREQUISITE: COMM 3823. [0603-1]
1248. Advanced Television Production. (3). Advanced techniques of studio and small-format TV production including staging and direction of programs NOTE: Students who have received credit for SPCH 3842 will not be allowed credit for SPCH or COMM 4842. PREREOUISITE: COMM 3824.
[0603-8]
1249. Development of Contemporary Film. (3). Study of theatrical film from 1925 to the present. Study and critıque of selected films. PREREQUISITES: COMM 1781, 1782, or permission of instructor. [0603-1]
1250. Origins of Film. (3). Study of the orıgıns and growth of the motion picture industry through the silent film era. Study and critique of selected films. PREREOUISITES COMM 1781, 1782, or permission of instructor. [0603-1]
1251. Documentary Form in Film. (3). History and criticism of documentary, educational, and industrial films. Study of the non-fiction form. PREREQUISITES COMM 1781, 1782, or permission of instructor
[0603-1]
1252. Documentary Form in Broadcasting. (3). History and criticism of non-fiction broadcasting and cablecasting. PREREOUISITE: COMM 1781, COMM 1782, or permission of instructor. [0603-1]
1253. History of American Broadcasting. (3). A comprehensive study of the history of the broadcasting industry in the United States as it developed from 1895 to the present. Use of primary sources. PREREQUISITES COMM 1781, 1782. [0603-1]
1254. Radio and Television Station Management (3). Theories of management; study and analysis of the special problems and situations confronting the manager of a broadcasting station, including personnel, operations, government regulations programming, and sales PREREOUISITE: COMM 4811 or permission of the instructor. [0603-8] 4892. Film Production. (3). A study of the operation
of 16 mm silent/sound cameras, contınulty prınciples, composition, angles, lightıng, sound recording and basic editing techniques. PREREQUISITE COMM 3824, or permission of instructor [0603-8]
1255. Directing the Forensics Program. (3) Designed for the teacher charged with the respon sibility of developing and directing interscholastic or intercollegiate competitive speech programs; the study of the historical background for such programs organizing techniques, recruiting, tournament direc tion, and other related concerns. [1506-1]

Graduate courses in Theatre and Communication Arts: For course descriptions and further detalls of the graduate program, see The Bullet/n of the Graduate School.

## CURRICULUM <br> AND INSTRUCTION

## ASSOCIATE PROFESSOR ROGER BENNETT Chairman

## Room 424, The College of Education Bulding

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

## M650 ELEMENTARY EDUCATION (ELED)

Requirements for the majors and minor are listed on page 79
1201. Reading Skills for University Students. (2). Offered for students who feel a need to increase their reading efficiency through the application 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]
2211 Introduction to Early Childhood Education. (3). Principles and practices of early childhood education programming, infancy through third grade, in the United States. Supervised lab experiences in varied socio-economic day care centers, kindergartens, and primary grades. Two lecture and iwo laboratory hours per week. [0802-1]
3212. Communication Interaction in Early Childhood Education. (3). Application of selected princi ples of communication to teacher-child interaction: classroom management, teaching strategies, and program development, infancy through third grade. Two lecture and two laboratory hours per week
[0823-1]
3241. Language Arts in the Elementary School (3). Designed to develop an understanding of the basic concepts of language. Special consideration given to how language arts (listenıng, speaking, readıng and writing) are learned and taught. The interrelatıonships of these skills stressed to better utilize these kinds of activities in teaching children to think clearly and communicate thoughts PRERE QUISITES EDFD 2011. EDPS 2111, 3121. [O802-1]
3251. Teaching Methods in Elementary School Mathematics (3). A study of newer math concepts and activities to be used in developing understanding PREREQUISITES EDFD 2011, EDPS 2111 , and 3121
[0833-1]
3261. Teaching Methods in Elementary School Science. (3). Participation in experiences which emphasize the process approach in the development of basic science concepts, including the area of resource use. Involvement with variety of materials. PREREQUISITES. EDFD 2011, EDPS 2111, 3121
[0834-1]
3271. Teaching Methods in Elementary School Social Studies. (3). A basic course nnvolving methods and materials appropriate to each developmental level of the elementary school child. PREREQUISITES EDFD 2011, EDPS 2111,3121
[0802.1]
3412. Materials and Methods for Affective Domain in Early Childhood Education. (3). Theory and content of affective development in early childhood education, infancy through third grade, implications for designing programs, materials and teaching strategies in the creative arts Two lecture hours, two lab hours per week Supervised lab experiences will be in varied socio-economic day care centers, nursery schools, kindergartens, and prımary grades PREREQUISITE: ELED 3212. [0803.1]
3803. Motor Learning and Teaching Methods in

Physical Education. (3). Inquiry into perceptual motor and psychomotor behavior. Emphasis on variables conducive to skill acquisition and their implications for formulatıng teacher behavior. (Same as PHED 3803). [0835-1]
3901. Special Problems in Instruction. (1 to 3). Individual investigation in the area of instruction PREREQUISITE: experience as a teacher or satisfactory evidence of being qualified to benefit from such a course. [0829-8]
4211. Comparative Study in Early Childhood Education. (3-6). The study of programs for young children in Unted States and other countries focusing on the relationship between the program and the values the society holds Comparisons of programs will be made with emphasis on how aspects of a program could be modified to meet the needs of children from a different culture. Foreign and domestic travel may be planned in conjunction with this course. PREREQUISITE consent of instructor. [0823-1]
4212. Materials and Methods for Cognitive Domain in Early Childhood Education. (3). Materıals and instructional techniques appropriate for infancy through third grade, cognitive development, concept formation, instructional objectives, preparation and implementation of academic content as in math, natural and social sciences, and language arts Two lecture hours and two lab hours per week Supervised lab experiences will be in varied socio-economic day care centers, nursery schools, kindergarten and primary grades. PREREOUISITE: ELED 3212.
[0803-1]
4242. The Teaching of Developmental Reading. (3). Designed to survey the theoretical background for developmental reading instruction. Practical consideration given to methods and materials used to teach the sequential skills in the primary and intermediate grades PREREQUISITE ELED 3241 or classroom experience. [0830-1]
4243. Corrective Reading. (3). This course has been designed to develop a teacher's ability to use informal diagnostıc technıques in readıng Emphasis is placed on using these results for instructional purposes. The use of standardized test results is also reviewed to give the teacher an accurate means of assigning materials at a student's functional or instructional reading level. PREREQUISITE. ELED 4242. [0830-1]
4252. The Teaching of Modern Mathematics in the Elementary School (Grades 1-8). (3). An advanced course acquainting prospective and experienced teachers with the mathematical processes required of the elementary school child and the reasons that certain methods are used [0838-1]
4411. Home School Relationships in Early Childhood Education. (3). Parent-Teacher-Child Relationships; conferring, interviewing, reporting procedures and techniques, pupil evaluation methods; atypical child characteristics. Two lecture hours, two lab hours per week Supervised lab experiences will be in varied socıo-economıc day care centers, nursery schools, kindergartens, and primary grades. PREREQUISITES. ELED 2211, 3212, 3412 . 4212. [0802-1]
4751. Workshop in the Reading Program. (3 to 6). Designed to utilize the reading conference, group study, discussion, demonstration, and directed practice to study problems of reading Particıpants will have the opportunity to pursue their own reading related problems of content, methods, materials, and evaluation. (Satisfactory-Unsatisfactory, only).
[0830-1]
4761. Aerospace Education in Schools. (3). The purpose of this course is to provide teachers with aerospace knowledge and experiences and ways of utilizing this knowledge and experience in the

## classroom. [0834-1]

*4811. Directed Student Teaching in the Kindergarten. (3-9). Observation of the growth and development of pupils and of methods of teachıng, participation in school activitıs, culmınatıng in assumıng responsibility for teaching entıre groups (Satisfactory-Unsatisfactory). [0802-5]
*4821. Directed Student Teaching in the Elemen. tary School. (3 to 9). Observation of the growth and development of pupils and of methods of teaching, participation in school activities, culminating in assuming responsibility for teaching entıre groups (Satisfactory-Unsatisfactory). [0802-5]
*4822. Directed Student Teaching in the Elementary School (3 to 6). For the student who has completed six semester hours or less of student teaching in the elementary school and desires some additional experience. (Satisfactory-Unsatisfactory).
[0802-5]
Graduate courses in Elementary Education. For course descriptions and details of the graduate program, see The Bulletın of The Graciuate School

## M675 CURRICULUM AliD INSTRUCTION (CIED)

4701. Workshop in Curriculum and Instruction. (1. 9). Various areas of the curriculum, curriculum processes, and elements of instruction are explored Problem-solving strategies will be employed, along with other approaches to define, relate, and deal with major issues impacting on curriculum and or instruction. Repeatable for credit, but for no more than 9 semester hours for any one topic. (Satisfactory/Unsatısfactory only). [0801-1]

## SECONDARY EDUCATION

Requirements for majors and minors in secondary education are listed on page 79

## M680 EDUCATION (EDUC)

3301. Analysis of Teaching. (1-3). Use of interac tion analysis and related nonverbal behavior technıques to describe pupil-teacher classroon interchange and use of microteaching to identify and analyze teachıng skılls 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 in operation of audıovisual equipment and development of selected materials and techniques centered around student interests. Emphasis on the implications of audio. visual media for teaching [0829-1]
3303. Teaching Reading Communication Skills in the Content Areas. (3). The course is designed for teachers of content subjects at all levels, exploring methods, materials, and organizational pattern 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 High School Art (3). (SAME as ART 4421) [0831-1]
*3322. Materials and Methods in High School Music. (3). [0832-1]
*3331. Motor Learning and Teaching Methods in Physical Education. (3). (SAME as PHED 3803)
[0835-1]
*For detalled information concerning the re quirements for admission to the student teaching program, see page 73
*3332. Materials and Methods in Health Education. (3). (SAME as HLTH 3102). [0837-1]
3335. Driver and Traffic Safety Education I. (3). A course designed to meet minimal qualification requirements for teachers of driver education in the secondary schools A study of materials and methods that may be used in organizing and conducting a Driver Education program in the secondary schools. PREREQUISITES: EDFD 2011; EDPS 2111, 3121 and a valid driver's license. [0836-1]
3336. Driver and Traffic Safety Education II. (3). Designed to give the student advanced professional preparation to meet the traffic safety educational needs of schools and communities. Included is a review of research related to accident causation, teacher preparation, current materials and methods used in organizing and administerıng a driver and traffic safety education program in a secondary school. PREREQUISITE: SCED 3335 or equivalent.
[0836-1]
*3341. Materials and Methods in High School English. (3). [0803-1]
*3342. Materials and Methods in High School French. (3). [0803-1]
*3343. Materials and Methods in High School German. (3). [0803-1]
*3344. Materials and Methods in High School Latin. (3). [0803-1]
*3345. Materials and Methods in High School Spanish. (3). [0803-1]
*3346. Materials and Methods in High School Speech (3). [0803-1]
*3347. Materials and Methods in High School Russian. (3). [0803-1]
*3351. Materials and Methods in High School Mathematics. (3). [0833-1]
*3361. Materials and Methods in High School Biology. (3). [0834-1]
*3362. Materials and Methods in High School Physical Science. (3). [0834-1]
*3371. Materials and Methods in High School Social Studies. (3). [0803-1]
*3372. Materials and Methods in High School Psychology. (3). [0803-1]
*3381. Materials and Methods in Vocational Business Subjects. (3). [0839-1]
*3382. Materials and Methods in Bookkeeping and General Business Subjects. (3). [0838-1]
*3383. Materials and Methods in High School Home Economics. (3). [0803-1]
*3384. Materials and Methods in High School Industrial Arts. (3). [0839-1]
*NOTE: The methods courses in high school subjects include: objectives, content, and grade placement of subject; tools of instruction. organization of courses; and teaching procedures and practices.
3901. Special Problems in Instruction. (1 to 6). Individual investigation in the area of instruction. PREREQUISITE experience as a teacher or satisfactory evidence of being qualified to benefit from such a course. [0829-8]
4306. Educational Methods for Adult Education. (3). This course places emphasis on trends, instructional and resource materials, and instructional techniques used in adult educational programs
[0807-1]
4337. Seminar in Driver and Traffic Safety Education. (3). An in-depth study of current problems, research and research methodology in driver and traffic safety education. PREREQUISITE: SCED 3335 or equivalent. [0836-1]
4341. Teaching Literature for Adolescents. (3). Theories and techniques of teaching literature for adolescents at the secondary level; survey and analysis of appropriate fiction, drama, and poetry for
the teenage reader. [0803-1]
4441. Curriculum Problems and Trends in the Secondary School. (3). This course is designed io afford some help in the clarification of secondary school educational purposes and in determination of appropriate learning activities. It deals with the functıonal teaching objectives, ways of obtaınıng these objectives, methods of establishing relationships among the school subjects, developing the core curriculum, and the organization and use of units of work. [0829-1]
*4841. Directed Student Teaching in the Secondary School (3 to 9). Observation of the growth and development of pupils and of methods of teachıng, participation in school activities, culmınatıng in assuming responsibility for teaching entire groups. (Satisfactory-Unsatisfactory) [0803-5]
-4842. Directed Student Teaching in the Secondary School. (3 to 6). For the student who has completed six semester hours or less of student teaching on the secondary level and desires some additional experience. (Satisfactory-Unsatisfactory).
[0803-5]
Graduate Courses in Secondary Education: For full details of the graduate program, see The Bulletin of The Graduate School.

## 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 programs in high schools, technical institutes and junior colleges. The requirements are listed on page 79.
(Students majoring in Marketing, or with concentration in Fashion Merchandising or Home Furnishings Merchandising may secure certificate to teach Distributive Education through this department).

## M600 DISTRUBUTIVE EDUCATION (DTED)

3010. Cooperative Occupational Education. (3). An introductory study of occupational education programs which use work experience coordinated with related in-school instruction to provide career preparation in marketing, office, industry, home economics, health and other fields of employment. (Same as HMEC 3010). [0838-1]
3011. Principles and Philosophy of Vocational Education. (3). The history, philosophy, principles and objectives of vocational education; curriculum problems; contribution of vocational-technical education to general education; trends in vocationaltechnical education. (Same as HMEC 4611). [0838-1] 4621. 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 week.
[0838-1]
3012. Materials and Methods in Distributive Education. (3). The instructional materials and techniques used in high school and post-high school Distributive Education classes. (Fall semester only). [0838-1]
3013. Techniques of Coordination of Cooperative Occupational Education. (3). Selecting training agencies; developing job analyses; selecting and briefing the training supervisor; selecting and working with advisory committees; utilizing other community resources. PREREQUISITE: DTED 4630 or consent of instructor. [0838-1]
*For detailed information concerning the requirements for admission to the student teaching program, see page 73 .
3014. Basic Problems in Distributive Education (1-3). A study of current trends and problems related to distributive education; viewpoints of leaders in th field; special attention to problems of student enrolled. [0838-8]
3015. Development and Supervision of Vocational Student Organizations. (3). Aims and objectives vocational student organizations and their value i occupational preparation; their development, cur ricular integration, operation and evaluation.
[0838-1
3016. Workshop in Distributive Education. (1-6) Designed to meet the needs of inservice teachers by offering an opportunity to work cooperatively problems which are real to teaching situations an which meet the needs of the individual. PRE REQUISITE: Teaching experience and permission o director of the workshop. (Satisfactory-Unsatisfactory only). [0838-1]
3017. Distributive Education Study Tour. (1-3). Ar opportunity to gain on-the-scene knowledge abou specific areas of instruction within Distributive Education. PREREQUISITES: Permission of instruc tor. May be repeated; however, the student shoulconsult with major advisor to determine the max imum credit which may be applied to a degre program. [0838-9]
*4871. Student Teaching in Distributive Educa tion. (3-9). Observation of the operation of a higl school Distributive Education program and methods of teaching; participation in school ac tivities, culmınatıng in assuming responsibility for teaching and coordinating entıre groups. PRERE QUISITE: DTED 4630. (Fall semester only) (Satisfactory-Unsatısfactory). [0838-5]
Graduate courses in Distributive Education: For details of the graduate program, see The Bulletin of The Graduate School.

## 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 un dergraduate level is to provide study in the socio cultural and psychological foundations of educatior for all students seeking to qualify for teache certification and/or the Bachelor of Science ir Education degree

M700 EDUCATIONAL FOUNDATIONS (EDFD)
2011. Foundations of Educational Thought and Practice. (3). A consideration of the development o Western education as directed by the precedents and contributions of (1) history, (2) the underlying philosophical theories, (3) the influence of society a large, and (4) the consequent and contemporary practices in American education. [0821-1]
4008. Special Problems in Cultural Foundations 0 Education. (1-3). Individual investigation and repor of a specific problem under the direction of a facult member. PREREQUISITE: permission of the instruc tor [0813-8]
4012. History of American Education. (3). Thi course aims to trace, describe, and evaluate the development and growth of educational practices institutions, and theories in the United States fro the colonial period to the present. [0821-1]
4021. Philosophy of Education. (3). A guide to th philosophical treatment of educational problems designed to develop in the student some facility $i$ critical and systematic thinking. [0821-1]
*For detailed information concerning the $r$ quirements for admission to the student teachin program, see page 73.
4031. School and Society. (3). Group behavior in the educational process; sociological factors involved in the interaction of pupils, teachers, administrators and community. [0821-1]
4032. Sociological and Psychological Implications of Urban Education. (3). Examination of literature on the sociology and psychology of urban education, including a study of changing trends in urban education. Emphasis is on the implications for educators in an urban setting. [0821-1]
4042. Survey of Educational Systems in Latin America. (3). This course examines the development of selected educational systems in Central and South America, determining how religious, economic, and political forces shaped educational policies and practices and how education in these systems differs from that in United States. [0821-1]
4051. Anthropology and Education. (3). (Same as ANTH 4051). A study of the cultural transmission process with emphasis on identifying different behavioral, cognitive, and learning styles of various ethnic groups within American society and selected third world countries. Encounters of U.S. subcultural groups within the public education system are examined. [0821-1]
4701. Workshop in Cultural Foundations cf Education: -. (1-3). Group study and analysis of a selected area indicated by the subtitle printed in the Schedule of Classes. NOTE: No more than 9 semester hours of workshop credit can be applied toward a degree (Satisfactory-Unsatisfactory only). [0822-1]

## RESEARCH METHODOLOGY AND STATISTICS (EDRS) M710

4511. Measurement and Evaluation. (3). The principles underlying the construction of objective tests and the problems relating to the use and interpretation of school measurements by teachers and administrators, practice in the construction of new-type and essay tests, and in the elements of statistical procedure necessary for the interpretation of school measurements. [0825-1]
4512. Special Problems in Educational Measurement. (1-3). Individual investigation and report of a specific problem under the direction of a faculty member. PREREQUISITE: permission of the instructor. [0824-8]
4513. Fundamentals of Applied Statistical Methods. (3). Introduction to the use of statistical techniques in education and the behavioral sciences, with emphasis on applications to research. Topics covered include tabulation and organization of data, central tendency, variability, probability, hypothesis testing, and correlation. Emphasis is placed on practical use and interpretation of these concepts rather than on computations. [0824-1]
4514. Fundamentals of Applied Research. (3). Introduction to basic research designs, the problem of replicability, and the methodology used in proposing and reporting research. A major course emphasis concerns the development of competence in referencing and interpreting research literature. [0824-1]

## M720 EDUCATIONAL PSYCHOLOGY (EDPS)

2111. Human Growth and Development. (3). An attempt to help the student understand child nature and development, to appreciate the fact that all behavior is caused, and to form the habit of seeking bases for both normal and abnormal behavior in situations at home, at school, and in the community.
[0822-1]
2112. The Psychology of Learning. (3). The psychology of learning as applied to activities under the guidance of the school. PREREOUISITE: Student must have filed and not been rejected for admission to the Teacher Education Program or declare no intention of securing teacher certification. [0822-1] 4108. Special Problems in Educational Psychology. (1-3). Individual investigation and report of a specific problem under the direction of a faculty
member PREREOUISITE: permission of the instructor [0822-8]
2113. The Psychology of Adolescence. (3). A laboratory study of the physiological, sociological, and psychological factors which act as antecedents of adolescent behavior as well as categories for the observation of behavioral outcomes during adolescence. Emphasis will be placed on the relationship of specific behaviors to problems encountered by teachers of adolescents. Community facilities will be used for laboratory observation. [0822-1]
2114. Management of Classroom Behavior. (1-3). A study of psychological principles and paradigms that can be used by educators to cope with behavioral problems and to improve the social and emotional behavior of pupils. Emphasis is placed on the requirement that students in this course demonstrate competence in applying psychological principles in appropriate educational laboratory settings. LECTURE/LAB: Approximately $2 / 3$ of total course time will be spent in academic study; about $1 / 3$ in laboratory application. [0822-1]
2115. Workshop in Psychological Foundations of Education: -. (1-3). Group study and analysis of a selected area indicated by the subtitle printed in the Schedule of Classes. NOTE: Not more than 9 semester hours of workshop credit can be applied toward a degree. (Satisfactory-Unsatisfactory only). [0822-1]

## GUIDANCE AND PERSONNEL SERVICES

PROFESSOR ROBERT E. DAVIS, Chairman Room 123, Patterson Building
The Department of Guidance and Personnel Services offers majors at the graduate level only.

## M730 GUIDANCE (GUID)

1661. Career Development. (3). Relationship of interests, aptitudes and careers. Experiences include exploration of work settıngs and activities to support individual career plannıng Students are expected to investigate work settings, relate this investigation to academic programs, and utilize this information in individual career development. [0826-1]
461 1. Introduction to Guidance. (3). Prıncıples and concepts, organization and administration, and implementation of guidance services in various settings with emphasis on schools. Personal growth and interpersonal relationship experiences provide opportunites for gainıng skills applicable to a wide range of human relations situations. Students will demonstrate understanding of guidance services and skills in interpersonal relationships. [0826-1]
1662. Humanistic Interactions in the Classroom. (3). Human relations exercises and other personal growth experiences designed to establish effective learning climates Students must demonstrate: (1) communication skills by working effectively in groups and one to one relationships, and (2) skill in idenfifying and referring students to appropriate resources. [0826-8]
1663. Practicum in Residence Hall Staff Counseling and Advising. (3). Practical experience for residence hall staff. Instruction and supervision will be provided The practicum deals with individual and group activities in counselıng, advising, communication, and leadership. Concerns such as drug abuse, family planning information, and student disciplıne will be considered. It utilizes interdepartmental disciplines. (Satisfactory-Unsatisfactory only).
[0826-8]
1664. Practicum in Leadership Development. (3). Supervised experiences for campus student leaders. Practice in leadership style, communication, advising and counseling. Students will demonstrate leadership development through coordination of actual events. (Satisfactory-Unsatisfactory only.) [0826-8] 4770-79. Workshop in Guidance. (1-3 each).

Designed to offer continuing growth to the professional in the field of guidance and counseling. Experiences include application and study in the field designated by the specific workshop number. The student is expected to develop appropriate skills and attitudes (Satisfactory-Unsatisfactory only).
[0826-1]
NOTE: Not more than 9 semester hours of Workshop credit can be applied toward a degree.
4772. Workshop in Corrections Counseling. (1-3). 4773. Workshop in Group Process. (1-3).
4774. Workshop in Community Services. (1-3).
4775. Workshop in Student Appraisal. (1-3).
4776. Workshop in Career Guidance. (1-3).
4777. Workshop in Pupil Personnel Services. (1$3)$.
4778. Workshop in Counseling. (1-3).
4779. Workshop in College Student Personnel Service. (1-3).
4781. Counseling Strategies for Crisis Intervention. (3). Process of crisis intervention. Study and practice in understanding crisis induced dysfunctional behavior, recognizing crisis situatıons, and crisis counseling procedures. Students will demonstrate competency in assisting in safely disengaging crisis participants, providing follow-up and referral.
[0826-8]
4782. Geriatric Counseling. (3). A survey of demographic, developmental, physiological-sensory and psycho-social aspects of aging as applied to counseling Experiences in the use of appropriate individual and group counseling techniques for the aged will be given with emphasis upon particular crisis situations such as retirement, leisure, relocation, housing institutionalization, dying, death, and survivorship. [0826-1]

## HEALTH, PHYSICAL EDUCATION, AND RECREATION <br> PROFESSOR MELVIN A. HUMPHREYS, Chairman <br> Room 204, Field House

Majors and / or minors are offered in (1) health, (2) physical education, and (3) recreation and park administration. Requirements are listed on page 79.

## RECREATIONAL THERAPY PROGRAMS

The University, in cooperation with Veterans Hospital, offers a program in recreational therapy designed to prepare the student to meet civil service requirements. For further information, students should consult with the chairman of the Department of Health, Physical Education, and Recreation.

M740 HEALTH (HLTH)
1102. Personal Health. (3). The physiological basis of correct living, including fundamental biological facts; the psychological aspects of human behavior as they affect the individual health conduct and mental hygiene; the agents of disease and modern scientific methods of controlling them. [0837-1]
1202. Introduction to Community Health. (3). A study of the health problems requiring community action. An introduction to the official and non-official health agencies whose programs are designed for the prevention of disease and disorders and the conservation and promotion of health. Activities in the areas of environmental health, sanitation, epidemiology, health education, and related areas are included
[0837.1]
1302. Foundations of Health Science. (3) An historical and philosophical study of the growth and development of health science. [0837-1]
2102. First Aid and Emergency Care. (3). Desıgned to assist the student in safety skills and technıques of
immediate and temporary care in the event of an injury or sudden illness. Successful completion qualifies the student for the standard first aid and personal safety ARC certificate. [0837-1]
2202. Safety Education. (3). Stress is placed on the causes of accidents and action designed for the prevention of accidents in the home, school, and community An examination of content and materials for safety education in the school instructional program. [0837.1]
3102. Materials and Methods in Health Education. (3). Methods, materials, and resources for health teaching with emphasis on improving health behavior through sound health teaching. PREREQUISITES: EDFD 2011; EDPS 2111, 3121. [O837-1] 3202. The School Health Program. (3). Organization of the total health program including health services, healthful school environment and health instruction. Emphasis is placed on methods of organizing and implementing health services in the schools; screening tests, detection of defects and follow-up; and the promotion of health through the school environment. [0837-1]
3206. Elementary School Health Education. (3). The school health program involving health services, healthful school living, and health instruction is considered. Content and materials suitable for an elementary school health course are stressed
[0837-1]
3402. Instructor's Course in First Aid. (3). Advanced consideration of first aid subject matter; orientation in methods, techniques, and teaching devices in first aid courses and practical classroom experience. Successful completion of this course qualifies one for Red Cross first aid instructor's and Basic Life Support/Cardiopulmonary Resuscitation (CPR) Instructor's Certificates. PREREQUISITE: HLTH 2102 or ARC advanced certificate. [0836-1]
3502. Prevention and Care of Athletic Injuries. (3). Practical and theoretical aspects of treatment of athletic injuries in an athletic training program; supplies, training table, therapeutic equipment, and techniques in conditioning and bandaging. [0837-1]
4102. Critical Issues in Health. (3). Critical and controversial issues of health are explored. [0837-1] 4202-20. Workshop in Health. (1-6). Special study of selected phases of health and health education through group study. This course is designed to provide indepth study in areas of interest to persons in health education and related fields. (Satisfactory Unsatisfactory, IP). [0837-1]
4202. Workshop in School and Community Health. (1-3).
4203. Workshop in Death and Dying. (1-3).
4204. Workshop in Sexuality Education. (1-3).
4205. Workshop in Drug Education. (1-3).
4206. Workshop in Environmental Health. (1-3).
4302. Observation in Community Agencies. (3). An introduction to the purposes, objectives, functions, and programs of a variety of community health and welfare agencies, with opportunities to visit official and volunteer agencies. [0837-1]
4402. Practicum in Public Health Education. (1-6). Field experience in public health education. Practical work under supervision of government or voluntary agencies. (Satisfactory-Unsatisfactoy, IP). [0837-8]
4502. Problems in Health Education. (1 to 3). Designed to afford opportunities for prospective or inservice school and other professional personnel to work individually or in groups on health education factors in the solution of practical problems. PREREQUISITE: permission of the instructor. NOTE: Credit may be earned in only one of the following courses: HLTH 4502, PHED 4303. [0837-8]
4602. Organization and Administration in Health. (3). A study of the basic functions, principles, and procedures of organization and administration as applied to health. Emphasis is placed on the
relationship and responsibilities of personnel in planning, promoting, and improving and evaluating the total health activities in the family-centered health services Legal and legislative aspects of health activities are included [0837-1]
4702. Trends and Problems in Public Health. (3). A review of the historical development and current trends in community health; the various needs and demands for medical care; the contribution of the professional personnel in providing for total health services and education. [0837-1]

## M 750 PHYSICAL EDUCATION (PHED)

1103. Orientation for Physical Education Majors and Minors. (2). Seminars in programs, career opportunities, professional societies, and literature in health, physical education, recreation, and related areas. Will meet twice weekly. [0835-1]

1001-1941. Selected Physical Activities. (2).
[0835-1]
Required Physical Education courses are to be selected from the following courses.
NOTE 1: The prerequisite for each advanc ?d activity course is the introductory course or its equivalent.
NOTE 2: Any student except those with a major or minor in Physical Education has the option of taking these activity courses for a letter grade or on a credit/no credit basis
1001. Figure Control and Conditioning
1103. See description above
1201. Adaptive Activity. (May be repeated for maximum of 4 semester hours.)
1301. Weightliftıng (men)
1331. Camping
1332. Advanced Camping
1361. Equitation
1412. Judo
1413. Advanced Judo
1431. Wrestling
1432. Advanced Wrestling
1441. Karate
1442. Advanced Karate
1451. Boxing Skills
1461. Fencing
1501. Tennis
1502. Advanced Tennis
1521. Four-Wall Racket Sports
1522. Advanced Four-Wall Racket Sports
1531. Handball
1532. Advanced Handball
1541. Badminton
1542. Advanced Badminton
1551. Archery
1561. Bowling
1571. Golf
1572. Advanced Golf
1581. Recreational Games
1621. Gymnastics
1622. Advanced Gymnastics
1651. Riflery
1711. Beginning Swimming
1712. Elementary Swimming
1713. Intermediate Swimming
*1721. Survival Swimming
*1722. Swimming-Lifesaving
*1731. Synchronized Swimming
*1741. Advanced Swimming
*1751. Water Polo
*1761. Springboard Diving
*1762. Advanced Springboard Diving
*1771. Scuba
*1772. Advanced Scuba
*1781. Canoeing
1811. Rhythms for Elementary School
$\dagger 1812$. Square and Round Dance I
$\dagger 1813$. Folk and Social Dance I
$\dagger 1814$. Folk and Social Dance II
$\dagger 1821$. Modern Dance I
$\dagger$ 1822. Modern Dance II
1823. Adagio
+1825 Ballet I
$\dagger 1826$ Ballet II
$\dagger 1827$ Jazz Dance 1
$\dagger 1831$. Tap Dance I
+1832. Tap Dance II
1911. Softball
1921. Basketball
1922. Volleyball-Basketball
1923. Volleyball
1931. Soccer and Fieldsports
1941. Track and Field Events
*The prerequisite for these courses is Physical Education 1713
$\dagger$ The descriptions for these courses follow immediately below.
1812. Square and Round Dance I. (2). An introduction to American square, round and contra dance. [0835-1]
1813. Folk and Social Dance I. (2). An introduction to international folk dance and American ballroom and social dance. [0835-1]
1814. Folk and Social Dance II. (2). Expansion on the repertoire of international folk dances and American ballroom and social dances of increased difficulty and challenge. [0835-1]
1821. Modern Dance I. (2). An introduction to modern dance techniques, with emphasis on exploration of the fundamentals of dance. Designed for the student with little or no previous experience in modern dance. Open to any interested student.
[0835-1]
1822. Modern Dance II. (2). A continuation of the development of modern dance techniques, with emphasis on dance combinations and patterns of an advanced beginner skill level. Open to any interested student who has successfully completed PHED 1821 or its equivalent. [0835-1]
1825. Ballet I. (2). An introduction to classical ballet technique with emphasis on barre and center floor work, on an elementary skill level. Designed for the student with little or no previous experience in ballet. Open to any interested student. [0835-1]
1826. Ballet II. (2). A continuation of classical ballet techniques, with emphasis on intermediate level adagio and allegro combinations. Open to any student who has successfully completed PHED 1825 or its equivalent. [0835-1]
1827. Jazz Dance I. (2). An introduction to contemporary jazz dance techniques, with emphasis on fundamentals of the idiom. Designed for the student with little or no previous experience in jazz dance. Open to any interested student [0835-1]
1831. Tap Dance I. (2). Basic fundamentals of beginning tap dance with emphasis on techniques of constructing tap rhythms and routines. Designed for the student with little or no previous experience in tap dance. Open to any interested student. [0835-1]
1832. Tap Dance II. (2). Development of intermediate skills and knowledge of tap dance. Open to any student who has successfully completed PHED 1831 or its equivalent. [0835-1]
2003. Analysis of Movement. (3). Designed to develop a basic understanding of how and where the body moves and what the body can do. Opportunities will be provided to demonstrate an understanding of the 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). Fundamentals of football coaching with special emphasis on blocking, tackling, passing, punting, catching; principles of line and backfield work, playing the various positions; formation of plays, generalship, signal systems, and scouting; coaching problems; study of the rules [0835-1]
2203. Fundamentals and Techniques of Basketball. (2). The theory and practice of basketball coaching, history of the game, and study of the rules;
ffensive and defensive systems; drills for the development of fundamental skills; training and conditioning of basketball squads. [0835-1]
2303. Fundamentals and Techniques of Track and Field. (2). The accepted forms of starting, hurdling, distance running, pole vaulting, discus and javelın throwing, and sprinting; physical conditions affectıng speed, endurance, and fatigue; and selection and preparation of contestants for track and field events; managing and officiating games and meets; study of rules. [0835-1]
2403. Fundamentals and Techniques of Baseball and Softball. (2). The theory and practice of baseball coaching, with attention given to the coaching of the individual in base running, fielding, batting, and pitching; detailed study of each postion; offensive and defensive team play; officiating; scoring; study of rules. [0835-1]
2503. Coaching Methods in Swimming. (2) Coaching techniques and methods stressed A course designed for those planning to coach swimming teams. PREREOUISITE: either lifesaving or W.S.I. qualifications. [0835-1]
2603. Sports Officiating. (3). A study of the rules, interpretations, and mechanics of officiating in football, basketball, baseball, etc. [0835-1]
2703. Water Safety Instructor. (2) Analysis, practice, and teaching of swimming and life saving skills and general water safety practice. PREREQUISITE: PHED 1722. [0835-1]
2803. Methods and Materials of Gymnastics. (2). A study of the materials, methods, and teaching techniques utilized in the instruction of gymnastics for women. Tumbling, re-bound tumbling, floor exercise, balance beam, uneven parallel bars, and vaulting progression and skills are included along with the spotting techniques particular to each event. PREREOUISITE: PHED 1621. [O835-1]
2903. History and Principles of Physical Education. (2). Origins and nature of modern physical education as a developmental experience and medium of education. Scientific and philosophical principles of physical education are examined
[0835-1]
3103. Materials and Methods in Team Sports for Women. (3). Study of materials, methods, teaching, and coaching techniques of team sports. Laboratory experiences required. PREREQUISITES: PHED 1921 and 1923. [0835-1]
3203. Materials and Methods in Individual Sports. (3). Study of materials, methods, and teaching techniques of life-time sports. Laboratory experience required. [0835-1]
3303. Adapted Physical Education. (2). A theory course including lectures, demonstrations, and problems of the mechanics of physical deformities and their causes; abnormalities of the 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 or the bones. PREREQUISITES: 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 experiences are required PREREQUISITE: PHED 1813. [0835-1]
3703. Physiology of Exercise. (3). Primarily designed to establish a sound scientific basis of physiological principles on the various systems and organs of the body during muscular activity. Specia emphasis is given in the principles of motor performance and training. Three lecture hours per week. PREREQUISITES: BIOL 1631 and 1632. [0835-1]
3803. Motor Learning and Teaching Methods in Physical Education. (3). Inquiry into perceptual
motor and psychomotor behavior. Emphasis on variables conducive to skill acquisition and their implications for formulating teacher behavior. (Same as SCED 3331 and ELED 3803) [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 in the city schools. Laboratory periods to be arranged [0835-1]
3816. Gymnastics in the Elementary and Middle School. (3). The study of the scope, content, and methodology of the gymnastics program. The student will learn how to teach the development of efficient and skilled use of the body in practical situations, when working alone and with others, on the floors and on apparatus. Laboratory experiences in the public school are included. PREREOUISITES: PHED 2003, 1621. [0835-1]
3826. Educational Dance in the Elementary and Middle School. (3). The study of the scope, content, and methodology of the rhythms and dance program. Emphasis is on the creative and aesthetic values therein, and the integration and correlation with the other arts in the school curriculum. Observations and laboratory experiences in the public schools are included PREREQUISITES: PHED 2003, 1813.
[0835-1]
3836. Games and Sport Activities for the Elementary and Middle School. (3). Designed to develop an understanding of the importance of a variety of games, sports, and manipulative activities and to learn the skills, progressions and teaching methods appropriate for games and sports. Lecture-laboratory experiences will be included. PREREOUISITE: team sports activity course. [0835-1]
3846. Planning the Elementary and Middle School Programs. (3). The examination of current and traditional theory in curriculum development, selection of content, program development and purchase and care of supplies and facilities. Observatıon and laboratory experiences will be included. PREREOUISITES PHED 2003, 3816, 3826, 3836. [0835-1] 4103-20. Workshops in Physical Education. (1-6). Special study of selected phases of physical education through group study. This course is designed to provide indepth study in area of interest to persons in physical education and related areas. (SatisfactoryUnsatisfactory, IP). [0835-1]
4103. Workshop in Program Planning. (1-3).
[0835-1]
4204. Tests and Measurements in Health and Physical Education. (3). A study of the various tests in the field of health and physical education, including uses and interpretation of elementary statistical techniques. [0835-1]
4303. Problems in Physical Education. (1 to 3). Designed to afford opportunity for prospective or inservice school and other professional personnel to work individually or in groups on physical education factors in the solution of practical problems. PREREQUISITE: permission of the instructor. NOTE: Credit may be earned in only one of the following courses: PHED 4303, HLTH 4502. [0835-8]
4503. Organization and Administration of Health and Physical Education. (3). A study of administrative problems of health and physical education, including curriculum, facilities, buying and caring for equipment, general class organization, and organization of an intramural program. [0835-1]

## M 760 RECREATION (RECR)

2105. Introduction to Recreation. (4). Knowledge of the history and development of the recreation and park movements; an understanding of the nature of the recreation experience and its importance to the individual and the influence of leisure on society. Knowledge of private, public, voluntary, military, and commercial delivery systems for recreation and park
services. [2103-1]
2106. Youth Service Organization. (2). An introduction to agencies servicing the leisure time needs of children and adults. Special emphasis on YMCA, YWCA, CYO, JCC, BSA, and GSA. Objectıves, organization, program, and membership of principal national youth agencies. [2103-1]
2107. Camp Counseling. (2). This course is designed to orient the student with camping as practiced in America today. It acquaints the student with the problems faced by the camp counselor and furnishes background to aid the counselor in the performance of his multıple duties [2103-1]
2108. Philosophy and Principles of Recreation. (2). A careful study of work leisure, play, and recreation with special attention being given to sound principles of recreation. PREREQUISITE: permission of instructor [2103-1]
2109. Park and Recreation Facilities. (2). A study of planning, development, and maintenance of parks and recreation facilities. Includes inspection, comprehensive recreation surveys, and planning a layout. PREREQUISITE: permission of instructor. [2103-1]
2110. Program Planning in Recreation. (4). An understanding of the program fields in relation to programming prınciples, plannıng objectıves, structural organization, purposes and values of types of activities, programs for special groups, and program evaluation. PREREQUISITE: consent of instructor.
[2103-1]
2111. Resource Management in Recreation. (4). A study of management, operation and maintenance of areas and facilities within field of recreation and parks. Includes the identification, acquisition, allocation, development and management of land and water resources. PREREQUISITE: consent of instructor [2103-1]
2112. Camp Administration. (2). A study of the organization and administration of various types of camps and camping programs with particular emphasis on program planning, selection and training of staff [2103-1]
2113. Outdoor Recreation. (2). The organization and adminıstratıon of programs and activities in large park areas and forests. Outıngs, campfire programs, picnics, hıkıng, outdoor cookery, traıling, clımbing, class and field activity. [2103-1]
2114. Outdoor Education. (2). The philosophy, modern trends, administration, program content, and methods of leadership in outdoor education activities. Opportunities for field trips and practice in leadership skills. [2103.1]
2115. Leadership Seminar in Recreation. (3). An understanding of the dynamics of leadership, the theories, principles, and practices of leadership, research in leadership, issues and problems of working with individuals and groups. PREREQUISITE: consent of instructor. [2103-1]
2116. Recreational Leadership. (3). Development of skills and techniques necessary for successful leadership in city, county and school recreation programs [2103-1]
2117. Supervised Clinical Training in Recreational Therapy. (6). Instruction will be given in arts and crafts, radio, television programming, social activities, adapted sports, music, allied ward and clınic activities for patients with varied illnesses and disabilities. [2103-1]
2118. Field Problems in Recreation. (1-6). This course is designed to offer opportunities to study selected problems in the areas of recreation through individual and group field experience. PREREOUISITE: permission of instructor. [2103-8]
2119. Organization and Administration of Recreation. (3). An understanding of community organization, its philosophy, foundation and principles. An understanding of selected administrative practices that relate to successful recreational organization and administration. [2103.1]
2120. Recreation Surveys. (3). Observation of different types of recreational programs in action under professional leadership and supervision. Written analysis of programs and facilities in connection with course work. [2103-1]
2121. Internship in Recreation and Parks. (3-9). Protessional field experience including all those situations in which the student has an opportunity to relate theory to practical experience. At least 280 clock hours in professional recreation and park programs. A progression of professional laboratory experiences in selected settings according to students particular area of emphasis. PREREQUISITE: consent of instructor (Satisfactory-Unsatisfactory. IP). [2103-8]
2122. Workshop in Recreation and Parks. (1-6). Workshop planned especially for inservice education and continuing education for professional recreation and park personnel or in-depth specialization for majors in recreation and parks. PREREQUISITE: consent of instructors. (Satisfactory-Unsatisfactory, IP). [2103-1]
Graduate Courses in Health, Physical Education, and Recreation: For details of the graduate program, see The Bulletin of The Graduate School.

## HOME ECONOMICS

PROFESSOR MARQUITA IRLAND, Chairman

## Room 404, Manning Hall

Requirements for the major and minor in home economics are listed on page 80
A co-operative relatıonship exists between Memphis State University and the Merrill-Palmer Institute of Detroit, Michigan, whereby a second semester junior or first-semester senior majoring 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 Fashion Institute of Technology in New York City, whereby Merchandising majors may enroll for one semester of study in New York with the semester hours earned being transferred toward graduation at Memphis State University

## M770 GENERAL HOME ECONOMICS (HMEC)

1100. Home Economics as a Profession. (1). The scope of Home Economics; educational preparation, professional orientation and research pertinent to the field. (Satisfactory-Unsatısfactory only). PREREQUISITE Home economics major [1301-1]
1101. Cooperative Occupational Education. (3). An introductory study of occupational education programs which use work experience coordinated with related in-school instruction to provide career preparation in marketing, office, industry, home economics, health and other fields of employment. (Same as DTED 3010) [1301-1]
1102. Occupational Education in Home Economics. (3). History, philosophy, and organization of Home Economics Occupational Education. Special emphasis will be given to instructional strategies and evaluation through classroom and on-site participation. PREREQUISITE: HMEC 3383. [1301-1] 4100. Senior Seminar in Home Economics. (1). The scope and direction of current research and trends in Home Economics; discussion of the roles of modern woman and an understanding of the professional ethics required of a home economist. PREREQUISITE: senior standing in Home Economics. [1301-1]
1103. Readings in Home Economics. (1-3) Designed to provide senior Home Economics majors an opportunity for in-depth reading or research in their area of specialization. PREREQUISITE: senior Home Economics majors only. [1301-8]
1104. Principles and Philosophy of Vocational

Education. (3). The history, philosophy, principles and objectives of vocational education; curriculum problems; contribution of vocational-technical education to general education, trends in vocationaltechnical education. (Same as DTED 4611). [0839-1] 4900. Home Economics Study Tour. (1-3). An opportunity to gain 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 RELATIONSHIPS (HMEC)

1101. Personal Development and Human Relations. (3). Individual and group adjustment, influences contributing to successful marriage and family life. [1301-1]
1102. Infant and Child Development. (3). A study of the affective, cognitive, and psychomotor development of the child from conception to eight years of age; guided observation of infants and young children. Three lecture hours, one laboratory hour per week. [1305-1]
1103. Nursery School Curriculum. (3). Applicatıon of child development principles to program planning; infancy through four years of age. Two lecture, two laboratory hours per week. [0823-1]
1104. Preparation For Marriage. (3). Courtship, marriage, and achievement of satisfaction in family life. PREREQUISITE HMEC 1101 [1305-1]
1105. Nursery School Practicum. (3). Participation in and direction of various nursey school activities. One conference, five laboratory hours per week. PREREQUISITE: HMEC 2101. (Satisfactory-Unsatısfactory only) [0823-8]
1106. Nursery School Practicum. (3). For the student who has had or is taking Home Economics 4301 and desires additional experience. (Satisfactory-Unsatisfactory only). [0823-8]

## FOODS, NUTRITION AND INSTITUTIONAL MANAGEMENT (HMEC)

2102. Food Selection and Preparation. (3). Prınciples underlying the selection and preparation of foods with an introduction to the 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 fundamentals in individual 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 handlıng problems of organization and management of quantity food service. (Enrollment must parallel that in HMEC 4602). [1307-1]
2106. Catering. (3). Spectal food preparation and service for parties, dinners, and teas Historical background of sectional foods in the United States with laboratory preparation. Six lecture and laboratory hours per week. PREREQUISITES: HMEC 4502 and 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 laboratory hours per week. PREREQUSITIES: HMEC 4502 and 3602. (Satıs-factory-Unsatısfactory only) [1306-8]
2108. Advanced Food Production (Practicum). (3). Special problems in quantity food production, organization, and management of institutional food service. One lecture, tour laboratory hours per week. PREREQUISITE: HMEC 3802. ISatisfactory-Unsatis-
factory only). [1306-8]
2109. Diet Therapy. (3). Dietary problems applicable to the prevention and treatment of diseas in which therapeutic diets are of major importance PREREQUISITE: HMEC 2202. [1306-1]
2110. Advanced Nutrition. (3). Fundamenta principles of nutrition and their application selection and planning of adequate diets for in dividuals and families. One lecture, two laborato hours per week. PREREQUISITE: HMEC 2202.
[1306-1
2111. Quantity Cookery and Purchásing. (3) Practical problems in preparıng and serving foods for large groups. Use of standardized recipes, calculatıon of food costs, and use of institution equipment PREREQUISITE: HMEC 2202. (Enrollment must parallel that in HMEC 3602). [1306-1]
2112. Community Nutrition 1. (3). Nutritiona problems and practices of vaious ethnic, age and socio-economic groups. A study of the community and agencies concerned with meeting these needs PREREQUISITE: HMEC 2202 or permission of the instructor. [1306-1]
2113. Practicum in Community Nutrition. (3). Observation and participation in nutrition education programs of local and state agencies. PREREQUISITE: HMEC 4602 or permission of instructor.
[1 306-8]

## HOME MANAGEMENT (HMEC)

4103. Family Economics. (3). Management of family resources as they relate to satisfying home and family life. Includes problems in consumer goods and services. [1305-1]
4104. Housing and Equipment. (3). A study of housing as it relates to conditions of family living Principles underlying the construction, use, and care of household equipment. Two lecture, iwo laboratory hours per week. [1305-1]
4105. Home Management Laboratory. (3). Practical application of the theories of decision-making and group dynamics involved in the management of the resources of a home. PREREQUISITE: HMEC 4103. [1304-1]

## HOUSING AND RELATED ART (HMEC)

1104. Art in Everyday Life. (3). A study of the elements of art and the principles of design as they relate to the practical aesthetics of living. [1301-1]
1105. Purchase and Use of Home Furnishings. (3). Principles of design and color theory applied to the selection and arrangement of the house and its furnishings. Two lecture, two laboratory hours per week PREREQUISITE: HMEC 1104. [1302-1]
1106. Trends in Residential Furnishings. (3). An analysis of the major trends and influences on contemporary residential furnishings as these affect home furnishings merchandising PREREQUISITE HMEC 3004. [1302-1]
1107. Socio-Economic Aspects of Housing/Government and Housing. (3). Analysis of the family housing needs and present social and economic conditions affecting housing, building processes, furnishings, and the role of government
housing. PREREQUISITE: HMEC 1104. [1399-1]
1108. Furnishings Problems and Presentations. (3). Problems in plannıng, coordinating, and purchasing of home furnishings. One lecture, three
laboratory hours per week. PREREQUISITE: HMEC 3104. [1302-1]
1109. Principles of Home Furnishings Marketing. ${ }^{\text {* }}$ (3). Patterns of production and distribution in the home furnishings industry, the market area and in merchandising techniques. Student may not enroll in more than a total of 12 semester hours during the Professional Semester PREREQUISITE: MKTG 3320 *COREQUISITE: HMEC 4804. [1304-1]
1110. Home Furnishings Merchandising Practicum.* (6). Eight weeks of full-tıme work experience
in Home Furnishings Merchandising in approved business establishments. Students may not be enrolled for more than a total of 12 semester hours during the professional semester. PREREOUISITE: MKTG 3320. *CQREOUISITE: HMEC 4604. (Satis-factory-Unsatisfactory only) [1302-8]

## TEXTILES AND CLOTHING (HMEC)

1105. Clothing Selection and Construction. (3). Standards in selecting and purchasing, construction of cotton garments to meet individual needs. One lecture, four laboratory hours per week. [1303-1]
1106. Clothing Construction. (3). Fundamental principles of clothing construction, fitting and handling wool, silk, and synthetic fabrics. One lecture, four laboratory hours per week. PREREQUISITE: HMEC 1105. [1303-1]
1107. Textiles. (3). A study of textile fibers used for clothing and house furnishing. Two lecture, two laboratory hours'per week. [1303-1]
1108. Consumer Problems in Clothing. (3). A course in clothing selection and buying for men and women with emphasis on individual needs and economic problems involved. [1303-1]
1109. Draping Design. (3). Dress design and construction developed through the media of draping techniques. PREREOUISITES: HMEC 1105 and 2205. [1303-1]
1110. Fashion and Home Furnishings Merchandising Seminar.* (3). A concentrated study of factors influencing fashion and home furnishings merchandising designed to provide guidelines for the professional semester taken by all merchandising majors. *CQREOUISITE: Fashion Major -HMEC 3705, 4705; Home Furnishing Majors-HMEC 4604, 4804. PREREQUISITE: All major subject matter couses must be completed before the professional semester.
[1303-1]
1111. Fashion Merchandising.* (3). An analysis of the fashion buying function in the retail store involving an understanding of the function of fashion in today's world, the fashion industry, and careers in fashion. PREREQUISITE: MKTG 3320. *COREOUISITES: HMEC 3700 and 4705. [1303-1]
1112. Trade Construction of Clothing. (3). This course is concerned with clothing construction based upon sound practical adapted trade methods and techniques, in logical sequence, in the construction of most elementary garments. PREREQUISITE: HMEC 2205. [1303-1]
1113. Internship in Clothing Services. (6). This course is designed to instruct teachers in the areas of Occupational Clothing Services. The main concern is based on preparing the individual for gaınful employment in occupations utilizing knowledge and skills in the clothing area. PREREQUISITE: All Qccupational major subject matter courses must be completed previous to internship. [1303-8]
1114. Tailoring. (3). Selecting and construction of tailored wool garments, using various tailoring techniques. PREREOUISITE: HMEC 1105 and 2205.
[1303-1]
1115. Fashion Marketing Practicum.* (6). Eight (8) weeks of full-time work experience in Fashıon Merchandising in approved busıness establishments. Students may not be enrolled for more that a total of 12 semester hours during the professional semester. *CQREQUISITES: HMEC 3700, 3705 (SatisfactoryUnsatisfactory only). [1303-8]

## LIBRARY SCIENCE

ASSOCIATE PROFESSOR
EVELYN GEER CLEMENT, Chairman
Room 201, John Willard Brister Library M780 LIBRARY SERVICE (LIBS)
4111. Books and Related Library Materials for Children. (3). Primarily a reading course based on materials suitable for elementary school children; leisure-tıme interests and curricular needs; criteria
for evaluating books and related materials such as magazines, photograph records, radio programs, and films; aids used in their selection; types of literary and informational books, authors, illustrators, and publishers; story-telling and other devices for encouraging reading [1601-1]
4121. Books and Related Library Materials for Young People and Adults. (3). This course is presented in the same manner as Library Science 4111, but is adapted to materials on the junior and senior high school levels; attention is also given to adult books to enable librarians to work more effectively with faculty and community groups.
[1601-1]
4131. Introduction to Bibliography. (3). An introduction to the theory and purpose of bibliography as a form of access to information, with emphasis on general reference sources. Introduces principles, practices, and methods of reference service. Sets the foundation for advanced bibliography courses by developıng recognition of types and characteristics as well as representative reference tools. [1601-1]
4232. Cataloging and Classification. (3). Introduction to the principles and techniques of the cataloging and classification of books and other library materials. [1601-1]
4331. School Library Administration. (3). The place of the library in the instructional and guidance program of the school and the philosophy and purposes of libraries and librarianship, including such problems as standards and evaluation, public relations and publicity, support, housing and equipment, training of assistants, and library-study hall relatıonships; field trips to different types of libraries.
[1601-1]
4401. Foundations of Librarianship. (3). An introduction to librarianship as a profession and the library as an institution in the cultural and political setting. The influence of social issues, societal needs, professional organizations, and federal legislation on the goals, ethics, organization, programs, and problems of libraries and librarians. [1601-1]
Graduate courses in Library Service. For details of the graduate program, see The Bulletin of The Graduate School.

## SPECIAL EDUCATION AND REHABILITATION

## ASSOCIATE PROFESSOR

JOHN W. SCHIFANI,
Acting Charmant130
Room 101 A. The Special Education Building
The Department of Special Education and Rehabilitation offers a major and minor in Special Education and a major in Rehabilitation Education; requirements are listed on page 81.

## Honors Program in Special Education

 and Rehabilitation
## 1. Criteria for Admission

Upon completion of thirty semester hours, a student may obtan application forms from the department and file for acceptance into the Special Education and Rehabilitation Honors Program. The credentials of each applicant will be reviewed by the Honors Committee (to be determined by the department chairman), and will be evaluated for the following mınımum requirements.

## A. An overall QPA of 3.25

B. A QPA of 3.5 in the major (SPER).
C. Two letters of reference from faculty (forms to be provided).
D. At least forty hours of service to exceptional persons, paid or as a volunteer, and a letter of support from the supervisor(s) where the services were given.
Each applicant will be notufied in writing of the Honors Committee's decision.

## II. Criteria for Retention

Once the student has been accepted into the SPER Honors Program, the following standards must be maintained

A An overall OPA of 3.25
B. A QPA of 3.5 in the major (SPER).
C. A minimum grade of $B$ in each honors course attempted.
The student's progress in the Honors Program will be evaluated at the end of each semester by his assigned advisor. If at any time he does not satisfy each of the above standards, he will not be permitted to enroll in honors courses for the following semester.
(1) If at the time of the next posting of his grades the honors student's OPA (overall and major) does not meet the specified minimum, he will no longer be considered an honors participant. In such cases, applications for readmission will be considered by the Honors Committee on an individual basis.
(2) If the honors student receives a grade of $C, D$ or $F$ in an honors course, he must re-enroll in the course and earn a grade of $B$ or better in order to continue in the honors program.
III. Criteria for Graduation with Honors in Special Education and Rehabiltation

1. Completion of at least 6 hours of lower division honors courses with a minımum grade of $B$ in each. Three (3) of these six (6) will be met by completıng the honors section of Introduction to Exceptional Children-SPER 2000 (3).
2. Completion of twelve (12) hours of Special Education and Rehabilitation honors courses (specified below) with a minimum grade of $B$ in each.
a. Introduction to Disabling Conditions and Therr Helping Profession - SPER 3901 (3).
b. Materials, Methods and Curriculum in Special Education and Rehabilitation-SPER 3512 (3) or 3513 (3), or 4904 (3)
c. CHOOSE QNE: Introduction to the Education of Children with Emotional Problems - SPER 3201 (3), or Introduction to Children with Learning Disabilities - SPER 3401 (3), or Nature of Mental Retardation - SPER 3501 (3), or Programming for Trainable Mentally Retarded Children - SPER 3516 (3).
d. Independent Study in Special Education SPER 3002 (3).
3. An overall QPA of 3.25 or better
4. A QPA of 3.5 in all courses required for the majors in Special Education and Rehabilitation. IV. Honors Courses Offered

Within the Department
Whenever possible, the Special Education and Rehabilitation honors courses will be offered, as a separate honors section, at least once each academic year. Should an individual honors student need a specific honors course for graduation during a semester when it is not being offered as an honors course, he will be permitted to contract for the course for honors credit by obtaining permission of the chairman and the instructor.

## V. Appeals

A student may appeal the decision of the Honors Committee on admission, suspension or readmission to the program by the following procedures:

1. Request for re-hearing by the Honors Committee.
2. Request for hearing by the College Honors Council.
3. Request for hearing by the University Honors Council.
4. Request for hearing by the Vice-President for Academic Affars

M 790 SPECIAL EDUCATION (SPER)
2000. Introduction to Exceptional Children. (3). A
survey course with an overview of the field of special education, including the historical perspective of the field. Emphasis is placed on the characteristics and education of children and youth in each area of exceptionality [0808-1]
2000. Introduction to Execptional Children (Honors). (3). Students who enroll in SPER 2000 by contract for honors credit will participate in an applied learnıng course, in addition to readıng a basic text on exceptional children and taking written examinations on this basic information. Qne or both faculty will meet weekly in seminar, exploring areas of special education with students, bringing in guests for special expertise, etc. In addition, throughout the semester on a rotating basis, each student will be placed in a special education setting for observation of and participation in the program including direct contact with children, their teachers and ancillary personnel. The students will periodically move to a new site until each student has visited each site. Examples of such special education programs might be Child Development Center, Sequoya, Colonıal (resource), Shrine School and Center for Visually Imparred The students will be supervised at their sites by the faculty, and a portion of their grade in the course will be derived from their efforts at the educational settıngs. [0808-1]
3002. Independent Study in Special Education. (3). A course designed to allow the student the opportunity of 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 learner with an opportunity for evaluation. (Satisfactory-Unsatisfactory only). COREQUISITE: One semester hour concurrent enrollment in SPER 3201 or 3401 or 3501. [0808-1]
3004. Special Problems in Instructing the Handicapped. (1-3). Individual investigation into areas of Special Education and Rehabilitation or satisfactory evidence of being qualified to benefit from such a course. [0819-8]
3012. Methods, Materials and Curriculum of the Exceptional Learner I. (3). Students will be exposed to the curriculum, methods and instructional materials which are applicable to the special educational needs of the mentally retarded at the primary, intermediate and secondary levels. The students will be taught skills which will enable them to effectively plan and implement teaching strategies with exceptional individuals. PREREQUISITE. SPER 2000. CQREQUISITES. SPER 3013 and 3014.
[0808-1]
3013. Practical Application of Special Education Methods and Materials 1. (1-3). Students will have the opportunity of planning and implementing special education methods and materials with exceptional children. PREREQUISITE: SPER 2000; COREQUISITES: SPER 3012 and 3014. [0808-5]
3014. Assessment of Exceptional Persons. (3). Survey of tests and measurements used with exceptional persons, including psychological, social, and other assessment instruments used in the educational and vocational evaluation of exceptional persons. PREREQUISITE: SPER 2000; CQREQUISITES: SPER 3012 and 3013. [0808-1]
3201. Introduction to the Education of Children with Emotional Problems. (3). A course designed to explore historical developments and current practices in the identification and treatment of children with emotional problems. Emphasis is placed upon the educational phase of treatment including the characteristics of children, role of the teacher, and curricula planning. PREREQUISITE: SPER 2000; CQREQUISITE: SPER 3003 ( 1 semester hour).
[0816-1]
3401. Introduction to Children with Learning Disabilities. (3). An introductory course, including an overview of minimal brain dysfunction, theories
concerning diagnosis, management and education of children with resulting learning disabilities, and the relationship of these concepts to academic fallure. PREREQUISITE: SPER 2000. CQREQUISITE: SPER 3003 (1 semester hour). [0818.1]
3501. Nature of Mental Retardation. (3). To include etiology, definitions, and a comprehensive knowledge of the nature and needs of the mentally retarded. The multiplicity of implications of mental retardation as they relate to impairment in growth, maturation, and learnıng, and the impact of these deficits on the individual, on his family, and on society. PREREQUSITIE: SPER 2000; CQREQUISITE: SPER 3003 ( 1 semester hour). [0810-1]
3516. Programming for Trainable Mentally Retarded Children. (3). This course covers diagnosis, classification, development of teaching materials, and techniques as well as working with community organizations in relation to public school, private school, community center or instructional program for trainable mentally retarded children. PREREQUISITES: SPER 2000, 3012, 3013, 3014. [O810-1]
3901. Introduction to Disabling Conditions and Their Helping Professions. (3). An introductory course to acquaint students with the various physical, mental and socially disabling conditions and their effect on the lives of people. This course also explores the roles of the various helping professions in the rehabilitation of such conditions. [1222-1]
3911. Introduction to Vocational Evaluation of the Disabled/Handicapped Citizen. (3). This course includes history, philosophy theoretical bases and present status of the field of vocational evaluation. Survey of the vocational evaluation process, principles, techniques and procedures, innovative methodologies and future trends in vocational evaluation are explored. [1222-1]
3912. Introduction to Work Adjustment of the Disabled/Handicapped Citizen. (3). This course is an introduction to the treatment process of work adjustment from a historical and philosophical perspective. Emphasis will be placed on the adjustment of the handicapped individual to work, personal, and social situations and techniques used to enhance this adjustment process. [1222-1]
4002. Trends and Issues in Special Education. (3). An analysis of current trends and issues in the field of special education. The course will emphasize dynamic concepts such as mainstreaming, the law and the handicapped citizen, working with parents of the handicapped and knowledge of available services for the handicapped and their family. [0808-1]
4012. Methods, Materials and Curriculum of the Exceptional Learner II. (3). This course is a continuation and expansion of SPER 3012. PREREQUISITE: consent of instructor. CQREQUISITE: SPER 4013. [0808-1]
4013. Practical Application of Special Education Methods and Materials II. (3). Students will have the opportunity of implementing diagnostic and remediation with a limited number of exceptional children who have a serious learning handicapping condition in a public school setting under the supervision of a trained Special Education teacher. PREREQUISITE: consent of instructor. CQREQUISITE: SPER 4012.
[0808-5]
*4541. Student Teaching in Special Education. 139). Orientation, observation, and teaching with handicapped children. (Satisfactory-Unsatisfactory). [0808-5]
*4542. Student Teaching in Special Education. (36). This course is offered for the student who has completed SPER 4541 and for whom additional teaching experience in special education is considered desirable. (Satisfactory-Unsatısfactory).
[0808-5]
*For detailed information concerning the requirements for admission to the student teaching program, see page 73.

4801-20. Workshops in Special Education and Rehabilitation. (1-9).
NOTE: Not more that 9 semester hours of credit can be applied toward a degree.
A study into Special Education and Rehabilitation Programming for handicapped children. The courses are designed to aid both in-service and prospective teachers in developing skills in diagnosis, evaluation, classroom and individualized studies. Attention is given to methodologies, instructional materials and behavioral management. (Satisfactory-Unsatısfactory, only).
4801. Workshop-Methodsin Instruction. (1-3).
[0808.1]
4804. Workshop in Tutoring Exceptional Children. (1-3). [0808-1]
4902. Social and Psychological Adjustments to Disabling Conditions. (3). A course designed to explore in depth the social and psychological ramifications of disabling conditions. Theories dealing with the adjustment to physical disabilities will be explored and extrapolated to mental and social disabilities. [1222-1]
4903. Helping and Human Relationships with Disabled Persons. (3). This course will focus on the helping process, examining theories of human behavior and the helping process as it relates to working with disabled persons. The theories of Combs, Carkhuff and others will be examined in this course. [1222-1]
4904. Instructional Methods in Rehabilitation. (3). This course will encompass the areas of vocational evaluation, vocational exploration and teaching job skills. It is designed to give the student a theoretical background in rehabilitation procedures as well as an opportunity for practical application of these theoretical constructs. [1222-1]
4905. Utilizing Client Information in Rehabilitation. (3). A course to acquaint students with the use of biographical, psychological, medical and job information for case planning will be stressed. Teaching mode will be lecture and simulating experiences. [1222-1]
4913. Diagnostic Vocational Evaluation for the Disabled/Handicapped Citizen. (3). This course deals with an in-depth study of the processes, principles and techniques used to diagnose general assets and limitations of the handicapped/disabled individual. Special emphasis is placed on the use of biographical or referral data, the evaluation interview and the rationale underlying the selection and use of psychological tests. PREREQUSITE: consent of the instructor. [1222-1]
4914. Prognostic Vocational Evaluation for the Disabled/Handicapped Citizen. (3). This course is a detailed study of the processes, principles and techniques used to determine and predict work behavior and vocational potential of the handicapped/disabled individual. The course explores the selection and use of appropriate occupational exploration programs, work samples, situational tasks, simulated work experience and on the job tryouts. PREREQUISITES: SPER 4913 or consent of the instructor [1222-1]
4915. Prescriptive Vocational Evaluation for the Disabled/Handicapped Citizen. (3). This course emphasizes techniques of synthesizing the information gained through the two previous courses in the series, Diagnostic and Prognostic Vocational Evaluation. The focus is on the interpretation of data through the formal staff conference, vocational counseling and follow-up procedures. Major emphasis is placed on writing concise vocational evaluation reports. PREREQUSITE: SPER 4913 and SPER 4914 or consent of the instructor. [1222-1]
4916. Work Sample Development for the Disabled/Handicapped Citizen. (3). This course, teaches skills needed in the development, standardization and validation of work samples. Study will include techniques of job analysis and community surveys and complete a work sample based on a local
labor market survey. PREREQUISITE: consent of the instructor. [1222-1]
4941. Practicum in Rehabilitation. (3-6). This course will provide the student with practical experiences in various rehabilitation settıngs. The student will be provided a first hand experience of the overall functions of such a rehabilitation setting. (Satisfactory/Unsatisfactory only). PREREQUISITE SPER 3901 or consent of instructor [1222-8]
Graduate Course in Special Education: see The Bulletin of The Graduate School.

## THE HERFF COLLEGE OF ENGINEERING

## Q840 ENGINEERING CORE CQURSES (ENGR)

1001. Introduction to Engineering. (1). History and nature of engineering as a profession, including industrial practices, academic programs, and career planning. The use of logic as applied to engineering problems and systems. One lecture hour per week. PREREQUISITE: freshmen having engineering inclinatıons. [0901-1]
1002. Engineering Computer Programming. (2). Introduction to the role of the digital computer in engineering systems; applications of computer systems to analysis and design; introduction to computer programming languages. One lecture, three laboratory hours per week. [0901-1]
1003. Engineering Graphics. (2). Role of graphical communicatıon in engıneerıng practıce; sketching and drafting techniques used in design, elements of descriptive geometry. One lecture, three laboratory hours per week [0901-1]

## CIVIL ENGINEERING

PROFESSOR THOMAS S FRY, Chairman Room 104A. Engineering Building
Requirements for the B.S. in Civil Engıneering are listed on page 83.

## 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. CQREQUISITE: PHYS 2511. [0908-1]
2132. Computer Methods in Civil Engineering. (3). Algorithmic approach to digital computation; iterative and logical methods; analog computations for distributive systems; civil engineering applications. Three lecture hours per week PREREQUISITES ENGR 1011: MATH 3391. [0701-3]
3111 . Field Measurements. (3). Princıples of field measurements; earthwork calculatıons, alignment of curves; error analysis. Two lecture, three faboratory hours per week. PREREQUISITE: ENGR 1011, MATH 2321 [0901-1]
2133. Structural Analysis 1. (3). Statically detęrminate structural systems; analytical and numerical solutions; influence lines, moving loads. Three lecture hours per week. PREREQUISITE: CIVL 2131.
[0908-3]
2134. Structural Analysis II. (3). Analytical and numerical solutions for statically indeterminate structures. Three lecture hours per week. PREREQUISITE: CIVL 3121. [0908-3]
2135. Design of Steel Structures. (3). Current design concepts for structural steel members and their connection; introduction to plastic design. Three lecture hours per week. PREREQUISITE. CIVL 3121, MECH 3322. [0908-3]
2136. Properties of Concrete. (3). Study of aggregates, aggregate benefaction, properties of portland cement, mıx design, testing of plain concrete, quality control of concrete and statistical methods for evaluating concrete test data Two lecture, three laboratory hours per week. PREREOUISITE: MECH 3322. [0908-1]
2137. Bituminous Materials Engineering. (3). Source, manufacture, processing, types, constituents, tests, chemical behavior, specifications and uses of bituminous materials and aggregates in pavement mix design and construction. Two lecture. three laboratory hours per week. PREREQUISITE: MECH 3322. [0908-1]
2138. Engineering Economics. (3). Application of economics and decision theory to engineering alternatives in planning, developing, constructing, and managing engineering projects. Three lecture
hours per week. PREREQUISITE: ECQN 2110.
[0901-1]
2139. Intermediate Steel Design. (3). Design of plate girders and composite beams; moment connections; building design. Three lecture hours per week. PREREQUISITE: CIVL 3131. [0908-1]
2140. Reinforced Concrete Design. (3). Strarght line and ultimate strength analysis for reinforced concrete members; floor systems; introduction to prestressed concrete. Three lecture hours per week. PREREQUISITE: CIVL 3122. [0908-1]
2141. Intermediate Reinforced Concrete Design. (3). Design of two-way slab systems; integrated building design using current code provisions. Three lecture hours per week. PREREQUISITES: CIVL 4121, 4135. [0908-1]
2142. Hydrology and Water Supply. (3). Hydrology of ground and surface water; water quality and treatment, hydraulic networks; water supply and distribution systems. Three lecture hours per week. PREREQUISITE: MECH 3331. [0908-1]
2143. Unit Operations and Processes in Environmental Engineering. (3). Qperatıons and processes in water and waste treatment, including sedimentation, coagulatıon, neutralızatıon, filtration, absorption, biological treatments, softening and other techniques. Three lecture hours per week. [0922-1]
2144. Waste Treatment. (3). Collection of wastes; physical, chemical, and biological treatment of wastes; solid waste control. Three lecture hours per week. PREREQUISITE: senior standing [0908-1]
2145. Environmental Engineering Analysis. (3). Quantitative measurements and bench scale pilot plant studies in the fields of water, sewage, industrial waste and stream pollution, interpretation and application of test data. One lecture, six laboratory hours per week. PREREQUISITE: CIVL 4145 or consent of instructor [0922-1]
2146. Environmental Engineering Design. (3). The design of a water and waste treatment plant. The student's background as well as accepted design criteria will be utilized. Three lecture hours per week. PREREOUISITE: senior standing or consent of instructor [0922-1]
2147. Soil Mechanics. (4). Physico-chemical basis of soil structure; indentification and classification, permeability, compressibility, and shear strength. Three lecture, three laboratory hours per week. PREREQUISITES: MECH 3322.3331. [ 0921-1]
2148. Applied Soil Mechanics. (3). Applications of theory to the design of building foundations, retaınıng walls, and hydraulic structures. Three lecture hours per week. PREREQUISITE: CIVL 4151. [0921-1]
2149. 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 Engıneerıng. [0908-3]
2150. Traffic Engineering. (3). The study of tratts and behavior patterns of road users and their vehicles. Includes traffic signs and signals, pavement markings, hazard delineation, capacity, accidents and parking analysis. PREREQUISITE: approval of instructor [0908-3]
2151. Advanced Surveying. (3). Elements of route location and design with emphasis on horizontal and vertical alignment, curvature, gradient and sight distance. Two lecture, three laboratory hours per week. PREREOUISITE: CIVL 3111 [0908-1]
2152. Civil Engineering Projects. (1-3). Independent investigation of a Civıl Engıneering problem in consultation with instructor PREREQUISITE: consent of instructor. [0908-8]

## ELECTRICAL ENGINEERING PROFESSOR THOMAS DEWEY SHOCKLEY, JR., Chairman <br> Room 206B, Engineering Building

Requirements for the B.S. in Electrical Engineering are listed on page 84

## Q820 ELECTRICAL ENGINEERING (ELEC)

2201. Circuit Analysis I. (3). Fundamental properties of electrical circuits; basic concepts and circuit elements; analysis methods and network theorems; sinusoidal steady-state response; introduction to transients. Three lecture hours per week. PREREQUISITE: MATH 2322. [0909-1]
2202. Circuit Analysis Laboratory. (1). Introduction to the utilization of meters, oscilloscopes, oscillators, power supplies and related test equipment in the experimental verification of basic electric circuit theory. Three laboratory hours per week. COREQUISITE: ELEC 2201. [0909-1]
2203. Circuit Analysis II. (4). Continuation of ELEC 2201. Resonance, impedance and admittance functions, network theorems and analysis, the complex frequency plane, polyphase circuits and magnetic coupling. Three lecture, three laboratory hours per week PREREQUISITE: ELEC 2201. [0909-1]
2204. Transform Methods in Network Analysis. (3). Introduction to transform theory; application of Fourier, Laplace and Z -transforms to the solution of network problems. Three lecture hours per week. PREREQUISITE: ELEC 2201. [0909-1]
321 1. Electronics I. (3). A study of active vacuum, gas and solid state devices as elements of electric circuits; linear models and linear operation of these devices are stressed. Three lecture hours per week. PREREQUISITE: ELEC 2201 and ELEC 2203. (0909-1)
2205. Electronics II. (4). Power amplifiers; feedback amplifiers; oscillators; modulation and detection; rectifiers. Three lecture, three laboratory hours per week PREREQUISITE: ELEC 3211. [0909-1]
2206. Electronic I Laboratory. (1). Designed to accompany Electrical Engineering 3211 . Emphasis is placed on laboratory techniques in the performance of basis electronic experiments Three laboratory hours per week. CQREQUISITE: ELEC 3211 . [0909-1
2207. Engineering Computer Systems. (3). Basio structure and organization of digıtal computers and associated peripheral devices. Digital representation of data, basic instruction sets, instruction execution and addressing techniques. Basic program structure in machine language. Subroutine and utility programs, systems programs, and other software Formulation of assemblers, compilers, and inter preters that are oriented toward computer -controlled systems Three lecture hours per week. PREREO UISITE: ENGR 1011 [0702-1]
2208. Matrix Computer Methods in Electrica Engineering. (3). Application of matrix theory to the solution of circuit problems. Introduction of the state space concept in circuit, electronics and controls problems. Introduction of matrix concepts in the solution of basıc electromagnetic problems. Three lecture hours per week. PREREOUISITE: ELEC 3201
2209. Introduction to Engineering Instrumentation. (4). Study of transducers for physical systems Mechanical, temperature, acoustic, and bıomedica transducers. Methods of processing and analyzing data Three lecture, three laboratory hours per week PREREQUISITE: ELEC 3212. [0909-1]
2210. Energy Conversion. (3). Energy conversior by electromechanical processes, energy relations ir magnetic systems, mathematical modeling of mag netic systems, transformers and electrical ma
hines. Three lecture hours per week. PREREQIISITE: ELEC 2201. [0909-1]
2211. Electrical Power Systems. (3). Investigation If problems associated with the transmission of lectrical energy. Load-flow studies, and fault fnalysis by use of symmetrical components. Three ecture hours per week. PREREQUISITE: permission pf instructor. [0909-1]
2212. Energy Conversion Laboratory. (1). Designed to accompany Electrical Engineering 4201. Fundamental properties associated with the testing and the utilization of direct current and of alternating current equipment such as motors, generators, alternators and transformers. Three laboratory hours per week. COREOUISITE: ELEC 4201. [0909-1]
2213. Continuous System Simulation. (4). Inroduction to analog computers. Use of analog computers, hybrid computers, programming languages and simulation languages for the simulation of linear and nonlinear systems. Three lecture hours, three laboratory hours per week. PREREOUISITE: ELEC 3202. [0909-1]
2214. Electromagnetic Field Theory I. (3). Maxwell's equations, electrostatics, magnetostatics and time varying electromagnetic fields. Three lecture hours per week. PREREQUISITE: MATH 3391.
[0909-1]
2215. Electromagnetic Theory II. (4). Contınuatıon of ELEC 4211. Plane, cylindrical and spherical waves; high frequency transmission lines; introduction to microwave and antenna theory. Three lecture, three laboratory hours per week. PREREQUISITE: ELEC 4211. [0909-1]
2216. Antenna Theory and Design. (4). Contınuation of 4212 with emphasis on the theory of operation and design of antennas. Determination of antenna radiation characteristics. Introduction to antenna array theory. Three lecture, three laboratory hours oer week. PREREQUISITE: ELEC 4212. [0909-1] 4215. Introduction to Bio-Engineering. (3). Use of engineering concepts for modeling physiological phenomena. Introduction and use of piecewise linear functions for the characterization of system components such as the respiratory, sensory, circulatory and muscular subsystems. Introduction to computer processing of electrocardıograms, cybernetic actuators, and design of prosthetic devices. Three lecture hours per week. PREREQUISITE: senior standing and permission. [0905-1]
2217. Bio-Control Systems. (3). Introduction to neural networks. Use of classical feedback control theory for the study of homeostasis and biological control mechanisms. Use of electromagnetic field theory in electrocardiography and hemodynamics. PREREQUISITES: upper-division standing and permission. [0905-1]
2218. Pulse and Digital Circuits. (4). Timing. scanning, trigger and pulse circuits; astable, bistable and monostable multivibrators; binary counting circuits. Three lecture, three laboratory hours per week. PREREOUISITE: ELEC 3212. [0909.1]
2219. Introduction to Logical Design and Switching Circuits. (3). Introduction to the analys is and design of logical switchıng circuits; logıc, number systems, digital computer components. Three lecture hours per week PREREQUISITE. ELEC 3211 or permission. [0702-1]
2220. Data Communication Systems. (3). A study of 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 correc. tion. 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. Communication Theory. (3). Frequency and time domain. Modulation, random signal theory; autocorrelation; basic information theory, norse,
communication systems. Three lecture hours per week. PREREQUISITE: ELEC 3212. [0909-1]
2221. Discrete Signal Processing. An introduction to deterministic and random discrete time signal analysis. Topics include signal time averaging, digital filtering, spectral analysis, and detection and estimation of signals. Applications to computer processing biomedical, seismec, and radar signals. PREREQUISITE: ELEC 3202. [0703-1]
2222. Introduction to Quantum Electronics. (3). Quantum concepts, Schrodinger equation, quantization of electromagnetic radiation. Laser theory and application. Three lecture hours per week. PREREQUISITE senior standing [0909-1]
2223. Control System Engineering. (4). General equations of physical linear systems and their transfer functions. Transient analysis and stability of servo systems. The Bode plot, Nichols chart, Nyquist plot, Routh-Hurqitz criterion, root locus methods, introduction to compensation techniques and systems in state space. Three lecture, three laboratory hours per week. PREREQUISITE: ELEC 3202, 4201. [0909-1]
2224. Introduction to Network Synthesis. (3). Synthesis of canonical LC, RL, RC, and RLC driving point impedances. Introduction to the synthesis and realization of lossy one and two port networks. Three lecture hours per week. PREREQUISITE: ELEC 3202.
[0909-1]
2225. Introduction to Microprocessors. (3). LSI circuitry, microprocesser architecture, hardware and software, application and system design using a Microprocessor Assemulator. Three lecture hours per week. PREREQUISITE: ELEC 3220. [0701-1]
2226. Microcomputer Applications. (3). An introduction to common peripheral devices and interfacing techniques. Use of high level languages to aid in microcomputer system design. Microprocessor applications. Three lecture hours per week PREREQUISITE: ELEC 4270. [0705-1]
2227. Electrical Engineering Projects I. (1-3) Independent investigation of a problem selected in consultation with instructor; report required PREREQUISITE: senior standing. [0909-8]
2228. Electrical Engineering Projects II. (1-3). Continuation of ELEC 4991. Design, construction and testing of project investigated in ELEC 4991; report required PREREQUISITE: ELEC 4991. [0909-8]
2229. Hybrid Simulation Techniques. (3). Introduction to hybrid computer techniques, hardware and software. Hybrid computer solutions of field problems parameter optimization and optimal control system problems and man-machine systems Three lecture hours per week. PREREQUISITE: ELEC 4205.
[0909-1]

## ENGINEERING TECHNOLOGY

PROFESSOR W.T. BROOKS, Director
Room 203, Technology Building
The requirements for the B.S in Technology and B.S in Engıneering Technology are listed on page 85

## 0890

## ARCHITECTURAL TECHNOLOGY (TECH)

1555. History of Architecture. (3). A history of architecture covering the major trends in architecture from prehistoric times to the present. Special importance is given to the impact of technological and social changes on the prevailing architectural styles.
[0925-1]
1556. Architectural Design I. (4). Fundamentals of archıtectural desıgn; basic technıques of draftıng, perspectives, presentation and working drawings. Tree lecture, three laboratory hours per week
[0904-1]
1557. Site and Environmental Planning. (3). A study of building sites; selection and utilization, including environmental influences. Technical aspects such as zoning, contour lines, parking, ingress/
egress, site drainage, building location and landscaping are included. Two lecture, two laboratory hours per week. PREREQUISITE: TECH 2555. [0913-1]
1558. Building and Construction Systems. (3). A comprehensive study of building types and bullding systems as they relate to Architectural Technology. Two lecture, two laboratory hours per week. PREREQUISITE: TECH 2556. [0925-1]
1559. Structural Design I. (3). Fundamentals of structural design and analysis of steel and timber buildings and building components PREREQUISITES: MATH 1321, TECH 3401. [O925-1]
1560. Structural Design II. (3). Fundamentals of structural design and analysis of concrete buildings and building components. PREREQUISITES MATH 1321, TECH 3401. [0925-1]
1561. Architectural Design II. (4). A contınuatıon of TECH 2555. Architectural Design I Basic design concepts and methods as applied to building types, design, construction, and systems for units of contemporary architecture. Three lecture, three laboratory hours per week. PREREOUISITE TECH 2555, 3471 [0904-7]
1562. Architectural Model Making. (3). Contınua tion of TECH 2555, including pictorial representations, model building and furnishings design PREREQUISITE: TECH 2555 [0925-1]
1563. Mechanical Equipment in Construction 1. (3). Studies of electrical and thermal services for commercial and residential structures PRERE QUISITE TECH 3520. [0925-1]
1564. Mechanical Equipment in Construction II. (3). Continuation of TECH 3531, with emphasis on the sanitary, water services, etc. for commercial and residential structures. PREREQUISITE: TECH 3531
[0925-1]
1565. Architectural Design III. (4). A contınuation of TECH 3520, Architectural Design II. Design concepts and methods as related to mass horizontal and vertical architectural development. Three lecture, three laboratory hours per week. PREREQ. UISITES. TECH 3520, 3471, 3472 [0904-1]
1566. Building Codes and Regulations. (3). The study of building codes and other regulating agencies at the local, state and national level such as local and state fire and health regulations, the BOC.A Building Code, The Occupational Safety and Health Act, National Fire Protection Associatıon and others.
[0925-1]
1567. Architectural Specifications and Contracts. (3). Examination of typical contract documents beginning with the agreement between the architect and owner and continuing through construction Emphasis will be on the roles and responsibilities of each party. CSI format for specifications will also be covered including the proper organization, writing and utilization of a complete set of specifications
[0925-1]

## 0890

COMPUTER SYSTEMS TECHNOLOGY (TECH)
2251. Advanced Programming Techniques. (4). The purpose of this course is to broaden the students's knowledge of computer usage through the study of modeling techniques applicable to engineer ing technology. Subprograms tape input/output, random-access storage devices, complex arithmetic, and double precision operations are emphasized Three lecture, three laboratory hours per week. PREREQUISITE: ENGR 1011 or TECH 1010 [0925-3] 3251. Data Structures. (4). Application of the high speed digital computer to the problems associated with the storage and retrieval of numeric and nonnumeric data in engineering systems Included are the representation and organization for storing of data, searching and sorting techniques, decision tables, and file maintenance techniques. Three lecture, three laboratory hours per week. PREREQUISITE: TECH 2251 or equivalent. [0925-3]
3271. Computer Simulation Technology. (4). A
study of languages designed for simulation of physical systems. Included are general purpose languages, as well as languages designed for electronics and construction technology. Laboratory will consist of the application of analog, digital, and hybrid computers to simulate large scale systems. Three lecture, three laboratory hours per week. PREREQUISITE: TECH 2251 or equivalent. [0701-1] 4251. Assembly Language Programming. (4). An investigation of a particular mini-computer from the programmer's viewpoint. Topics include machine representation of data, instruction formats, machıne operation and addressing techniques, input/output, and interrupts. Applications will include the use of minicomputers for numerical control and in sensor based systems. Three lecture, three laboratory hours per week. PREREQUISITE: TECH 2251. [0701-3]
4261. Computer Applications in Engineering. (4). Applications of problem oriented and procedure oriented languages to problems from selected areas of Engineering Technology. Topics include data collecting, modeling techniques, constraints, program development and validation. Areas of emphasis may vary to meet student needs. Three lecture, three laboratory hours per week. PREREQUISITE: TECH 2251 or permission of the instructor. [0925-1]
4271. Computer Techniques. (4). Advanced computer techniques in industry. Topics include APT programming for NC machine tools, application of the computer to solve PERT networks and applications in production planning and control. Three lecture, three laboratory hours per week. PREREQUISITE: TECH 2251, CQREQUISITE: TECH 3422. [0702-1]
4831. Computer Technology I. (3). Introduction to digital and analog computer hardware relating to computing circuits and systems; numbers systems; switching and logic circuits; storage devices; input and output devices; principles of program control. Two lecture, three laboratory hours per week. PREREQUISITE: TECH 2831 or permission of the instructor. [0701-1]
4832. Computer Technology II. (3). An introduction to internal computer organization and configuration design; component and device characteristics; data representation, transfer and storage: Boolean algebra, combinational logic. Two lecture, three laboratory hours per week, PREREQUISITE: TECH 4831 or permission of the instructor. [0701-1]
4834. Digital Systems in Technology. (4). In dustrial and commercial applications of microcom puters and microprocessors; theory of operation of MSI and LSI logical devices, memory and input/output devices; techniques of microprogramming, testing and maintenance. Three lecture, three laboratory hours per week. PREREQUISITE: TECH 4832. [0701-1]

## Q890 CONSTRUCTION TECHNOLOGY (TECH)

1451. Introduction to Surveying. (3). Surveying practices, calculations, and use of topographical conventions. Two lecture, three laboratory hours per week. PREREQUISITES: TECH 1411 and MATH 1212. [0925-1]
1452. Construction Safety. (3). Study of hazards and their control as related to the construction industry. [0925-1]
1453. Soil Technology in Construction. (3). Soil Technology as applied to the construction field. The fundamental properties of soils with application to foundations, highways, retaining walls and slope stability. The relationship between soil characteristics and geologic formations. Two lecture, three laboratory hours per week. PREREQUISITE: junior standing or approval of instructor. [0925-1]
1454. Construction Administration. (3). Ethical practice, social responsibility, licensing, codes, and public regulation of contracting, specification writing and interpretation, functions of the architectengineer and owner, construction contracts, bonding, insurance, indemnification, labor agreements and jurisdictional procedures, joint venture and
subcontract relationship will all be included in the course. PREREQUISITE: junior standing. [0925-1]
1455. Construction Surveying Methods. (3) A study of methods techniques and formulas necessary to establish controlling points at any construction site. Both office and field procedures required to locate centerlines and bounds of structures will be covered. PREREQUISITE: TECH 1451. [0925-1]
1456. Estimating. (3). Study and practice of specifications, bidding procedures, and estimating. PREREQUISITE: TECH 2555. [0925-1]
1457. Land Surveying. (3). The historical background of property surveys. Writing adequate land descriptions. Interpretation of old descriptions. Excess and deficiency. Riparian rights. Field practice. Two lecture, three labortory hours per week. PREREQUISITE: TECH 1451. [0925-1]
1458. Construction Planning and Scheduling. (3). Principles of planning scheduling, organizing, and controlling construction projects. Studies in the critical path method (CPM) and PERT, with resource leveling and financial scheduling. Computer applications in CPM and PERT will be emphasized Two lecture, three laboratory hours per week. PREREQUISITE: senior standing. [0925-1]
1459. Construction Methods and Equipment. (3). Theory and practice of construction operations, equipment utilization, construction methods, analysis of costs, crew and equipment. PREREQUISITE senior standing. [0925-1]
1460. Construction Logistics. (3). Theory and practice of construction project bidding using statistical concepts of probability and computer applications. Office procedures, job and cost control, and the analysis of starting and completing construction contracts will be studied. PREREQUISITE: senior standing. [0925-1]

## Q890 ELECTRQNICS TECHNQLOGY (TECH)

1811. Electronics Technology I. (3). An introduction to fundamental electrical and electronic theory and devices, circuit and network theorems, with laboratory emphasis on basic electrical measurements and the proper use of instruments. Two lecture, three laboratory hours per week. PREREQUISITE: MATH 1213. [0909-1]
1812. Electronics Technology 11. (3). Circuit analysis methods in modern electronics technology. Laboratory confirmation of mathematical solutions to problems involving Direct and Alternating Currents. Two lecture, three laboratory hours per week. PREREQUISITE: TECH 1811. [0925-1]
1813. Electronics Technology III. (3). Theory of solid-state devices and electron tubes with applications in power supplies, amplifiers and other basic electronic circuits. Solid-State diodes, bipolar junction transistors, and field effect transistors are emphazized. Two lecture, three laboratory hours per week. PREREQUISITES: TECH 1811 and concurrent enrollment in TECH 1821. [0909-1]
1814. 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 are studied, with emphasis on integrated circuits. Two lecture, three laboratory hours per week. PREREQUISITE: TECH 2821. [0909-1]
3811 . Electronics Communications. (3). Principles of modulation and demodulation are examined 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. [0925-1]
1815. Industrial Electronics. (3). Study of electronic circuits and systems in modern industry. The course includes the theory and industrial applications of devices such as gas and vacuum tubes, unijunction
transistors, silicon controlled rectifiers, diacs, triac opto-electronics, and synchros. Two lecture, thre laboratory hours per week. PREREQUISITE: TEC 2831.[0925-1]
1816. Control Instrumentation. (4). A study of th theory of application of automatic control equipmen principles, operations and construction of pneumati hydraulic, electrical, and automatic ratı controller Three lecture, three laboratory hours per weel PREREQUISITE: TECH 3821 or permission instructor. [0925-1]
1817. Advanced Applied Electricity. (3). generation and utilization of single and polyph electrical power in home and industry; DC and $A$ generators, motors, regulators and meters in bot individual and systems applications. Two lecturs three laboratory hours per week. PREREQUISITF TECH 1821.[0909-1]
1818. Acoustical Equipment and Studi Techniques. (3). This course sets forth the basi principles of acoustics as applied to sound waves i open air or enclosures; treatment of rooms an stages used for recording and reproduction Techniques for setting up stages and microphon placement for small groups or large orchestras a discussed. PREREQUISITE: TECH 2831. [0925-1]
1819. Magnetic Recording and Mixing. (3) Transport systems; single and multiple sound trad heads; alignment; shielding; crosstalk; high frequency bias current; types of magnetic tape equalization; degaussing; different types of studi recording and associated equipment; techniques recording, mixing, mix-down, and special effects PREREQUISITE: TECH 2831. [0925-1]
1820. Antenna Technology. (4), Detaile examination of transmission lines and antennas using applications approach with minimum of purel mathematical analysis; applications in both wire an wireless systems. Three lecture, three laboraton hours per week. PREREQUISITE: TECH 3811
1821. Advanced Electronic Communication Technology. (3). Concepts, systems and practic applications in the generation, transmission an detection of aural, data and visual information analog and digital form. Three lecture hours $p$ week. PREREQUISITES: TECH 4821 and 4834
1822. Microwave Technology. (4). Generation an transmission of energy at frequencies above 30 megahertz, emphasizing techniques and equipmen which contrast sharply with those at lower frequen cies. Three lecture, three laboratory hours per week PREREQUISITES: TECH 3811 , TECH 4801 or permis sion of instructor. [0925-1]
1823. Video Communications. (3). Theory and application of technical equipment for the genera tion, transmission, and reception of video signals, both closed circuit and broadcast. Two lecture, three laboratory hours per week. PREREQUISITE: TECH 3811. [0925-1]
1824. Studio Sound Systems. (3). The recording studio as an integrated sound system; classifications of microphones; design of loudspeaker; circuitry and functions of a sophisticated mixing console. PREREQUISITE: TECH 2831. [0925-1]

## Q890 INDUSTRIAL ARTS (TECH)

2911. Foundations of Industrial Education. (3). Study of the development, objectives, and current trends of industrial arts and vocational education; required for teaching endorsement in Industrial Arts.
[0839-1]
2912. Industrial Arts Electronics. (3). Brie coverage of applied electronics for prospective teachers. Two lecture, three laboratory hours per week. PREREQUISITE: TECH 1821. [0909-1]
2913. Clinical Practice in Manual Arts Therapy, (6). Supervised clinical practice in the Physical Medicine and Rehabilitation Service at Veterans Administration Hospital, Memphis. PREREQUISITE:
senior classification, with major in Industrial Arts Education. [0925-1]
2914. Energy and Power Technology. (3). Principles of energy systems and power mechanics to include energy sources, conversion and transmission. Internal and external combustion engines will include gasoline, diesel, jet and rockets. The study of atomic, solar and alternative energy sources will include laboratory experiments and problem of small engine and energy sources. Two lecture, three laboratory hours per week. [0925-1]
2915. Organization of the General Shop. (3). Study of problems dealing with the selection and organization of general shop activities. Two lecture, three laboratory hours per week. PREREQUISITE: junior standing. [0925-1]
2916. General Shop Applications. (3). This course deals with the implementation of the philosophy of the general shop with emphasis on curriculum planning. Two lecture, three laboratory hours per week PREREQUISITE: junior standing. [0925-1]
2917. Crafts for Teachers. (3). Study and experience with craft materials. [0839-1]
2918. Research and Development. (3). Materials, methods and procedures for presenting research and development in the Industrial Arts Laboratory. Two lecture, three laboratory hours per week. PREREQUISITE: junior standing. [0925-1]
2919. Communication Industries. (3). Materials, methods and procedures for presenting the communication industries in the Industrial Arts Laboratory. Two lecture, three laboratory hours per week. PREREQUISITES: junior standing, TECH 1511 and 1811. [0925-1]

## Q890 MANUFACTURING TECHNOLOGY (TECH)

1511. Graphics I. (3). An introductory course in graphic representation and presentation. Basic exercise in lettering, use of the instruments, sketching, geometric construction and projections are offered; however, problem solving is stressed Two lecture, three laboratory hours per week.
[0925-1]
1512. Introduction to Forest Products Technology. (3). Lecture and related labo atory activities are employed to study the fundamental concepts of wood utilization, wood fabrication, operations of woodworking machines, adhesive technology, wood lamination and bending wood anatomy, wood finishing, and the organization of forest products and industries. Two lecture, three laboratory hours per week. [0925-1]
1513. Machine Production Techniques. (3). A study of metalworking equipment and machinery for production usage, including safety, care, layout, cutting feeds and speeds, tool grinding, drilling, tapping, shaping, turning, and milling. Two lecture, three laboratory hours per week. [0925-1]
1514. Descriptive Geometry. (3). A study of points, lines and planes in space with emphasis on application to problems of a technological nature. Two lecture, three laboratory hours per week. PREREQUISITE: TECH 1511. [0925-1]
1515. Graphics II. (3). A continuation of TECH 1511 to include working drawing, details, assemblies and pictorials. Shades and shadows are also considered Two lecture, three laboratory hours per week. PREREQUISITE: TECH 1511.[0925-1]

2611 . Principles of Wood Lamination and Bending. (3). A study of industrial wood lamination and bending techniques, with a major emphasis placed on adhesive technology. Two lecture, three laboratory hours per week. [0925-1]
2651. Survey of Forestry. (3). An introduction to forestry as it relates to tree farming, the environment, conservation and utilization practices, and its economic impact on the forest products industries.
[0925-1]
3386. Industrial Safety. (3). Study of industrial hazards and safety procedures. [0925-1]
3410. Plastic Properties and Processes. (3). The classification and properties of the basic groups of plastics and the industrial processes and techniques used in transforming the raw materials into usable products. Two lecture, three laboratory hours per week. PREREQUISITE: CHEM 1051. [0925-1]
3421. Manufacturing Processes. (3). A study of the various processes and techniques used to shape materials into useful products. Techniques include cutting, molding, stamping, extruding, cold and hot forming, and grinding. [0925-1]
3422. Metal Manufacturing Processes. (3). Advanced study and practice in metals machining and fabrication. Emphasis is on advanced techniques in duplicating equipment, numerically contolled machines, milling, shaping, grinding, and turning. Two lecture, three laboratory hours per week. PREREQUISITES: TECH 1711. [0925-1]
3505. Applied Dynamics. (3). A study dealing with motion and the effects of forces acting on particles, lines, and rigid bodies in motion. PREREQUISITES: MATH 1321 and TECH 3400. [0925-1]
3572. Technical Illustration. (3). A course dealing with the basic techniques of illustration as applied to industrial visual communication. Two lecture, three laboratory hours per week. PREREQUISITES: TECH 2511 and 2512. [0925-1]
3573. Mechanical Design. (3). A basic consideration of mechanisms, kinematics, linkages, cams, and gears. Two lecture, three laboratory hours per week. PREREQUISITE: TECH 2511. [0925-1]
3601. Principles of Light Frame Building Construction. (3). A study of the principles and practices of contemporary light frame building construction. Also includes the design and manufacturing of structural timbers and engineered panels. Two \%ecture, three laboratory hours per week. [0925-1]
3611. Industrial Wood Processing. (3). The study of wood product mass production techniques, to include jig and fixture design, product design, industrial woodworking machines, personnel management, and industrial wood finishing procedures. Two lecture, three laboratory hours per week. PREREQUISITE: TECH 1611. [0925-1]
3631. Wood Technology. (3). A study of the anatomy, properties and characteristics of wood. Also includes macro and micro wood identification and wood preservation. Two lecture, three laboratory hours per week. PREREQUISITE: permission of instuctor [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 laboratory hours per week, PREREQUISITE: TECH 1711. [0925-1]
3731. Metallurgy. (3). A study of the properties of ferrous and non-ferrous metals with emphasis on: physical and mechanical properties, cold and hot working, heat treatment, hardening and testing. Two lecture, three laboratory hours per week. PREREQUISITES: TECH 1711 and CHEM 1051. [O925-1]
3921. Electrical and Mechanical Safety. (3). Study of the electrical hazards associated with industry and the problems of protecting the worker from mechanical hazards on the job. [0925-1]
3931. Materials Handling Safety. (3). Study of inplant traffic problems as they relate to safety of materials handling, both mechanical and manual. Covers safety of operation for forklifts, cranes, trucks and other mechanized equipment. [0925-1]
4460. Motion and Time Analysis. (3). A study of methods improvement, motion economy, and the development of time standards by direct observation, predetermined time standards, and synthesis.
[0925-1]
4461. Advanced Wood Technology. (3). A study of pulp and paper technology, kiln and radıo frequency drying of wood, and techniques for testing the strength properties of wood PREREQUISITE: TECH

3631, Wood Technology. [0925-1]
4462. Inspection and Quality Control. (3). Inspecting products and controlling the quality through the use of statistical techniques. Topics for study include administration of inspection, tolerance systems, gaging sampling inspection plans, frequency distributions, control charts for variables and control for fraction defective and defects per unit. [0925-1]
4464. Production Control. (3). The planning and contol of production with emphasis on intermittent and continuous manufacturing. Fields of study include forecasting, designing control forms, using visual controls, scheduling, dispatching, preplanning, and using critical path techinques. [0925-1]
4466. Plant Layout. (3). Designing a plant with respect to material handling, machine location, auxilliary services, capital requirements, safety, and personnel organization. [0925-1]
4468. Production Methods. (3). A study and comparative analysis of production methods and techniques used to manufacture various types of products. Emphasis is on plant visitation and analysis with respect to methods used, plant layout, production control procedures and time standards established. [0925-1]
4470. Human Performance Factors. (3). Determining the most effective way to integrate the man and the task he is to perform by studying work procedure, workstation layout, and equipment design. Two lecture, three laboratory hours per week.
[0925-1]
4471. Machine Design. (3). A study of the design of basic machine elements, subassemblies and assemblies. Two lecture, three laboratory hours per week. PREREQUISITES: MATH 1212 and TECH 2511
[0925-1]
4591. Tool Design.(3). A course concerned with the design and application of jigs, fixtures and dies. Two lecture, three laboratory hours per week. PREREQUISITES: MATH 1212 and TECH 2511 and 3401.
[0925-1]
4661. Forest Resources. (3). A study of the relationship of forest products to the economy of the United States. PREREQUISITES: permission of instructor and junior classification. [0925-1]
4951. Fire Safety. (3). Study of the causes of fire, organization of fire brigades, methods of fire suppression and protection of property. PREREQUISITE: TECH 3386 or permission of the instructor. [0925-1] 4952. Chemical Safety. (3). Study of chemical hazards to the worker and environment and methods for control. PREREQUISITE: TECH 3386 or permission of the instructor [0925-1]
4961. Industrial Hygiene. (3). Acquaints students with potential hazards of the work environment. Covers the exposure of the worker to toxic materials and physical stress, sampling techniques for determining exposure and methods of prevention.
[0913-1]

## Q890 SUPPORTING COURSES (TECH)

1010. Introduction to Computer Usage. (2). Instruction on how computers operate. Methods of communicating with computers through input and output devices will be demonstrated and used. Elementary and familiar calculations will be programmed in BASIC and the student will have hands-on operational experience with the remote terminal equipment. One lecture, two laboratory hours per week. PREREQUISITE: High School Mathematics. [0701-1]
1011. Introduction to Technology. (1). An introduction to technology, with emphasis on the engineering technology programs as to content and opportunities upon graduation; a study of technical applications, calculations and activities related to the various technological disciplines; approaches to basic research techniques and problem solving
[0925-1]
1012. Technical Report Writing. (3). Studies of
scientific methocs for organizing technical reports Topics include technical correspondence and resumes; systematizing, analyzıng and interpreting rechnical information and the presentation of charts, diagrams and other graphic aids. PREREQUISITES TECH 1511 and ENGL 1102. [0925-1]
1013. Analysis for Engineering Technology.(4). Application of mathematical, scientific, and engineering principles to the solution of technology problems, using a variety of examples from the various major areas in Technology. Students will analyze and provide acceptable solutions to an ascending order of well designed problems using the language and techniques of related technological disciplines and selected areas of mathematics, such as algebra, trigonometry, calculus, and differential equations. Three lecture, three laboratory hours per week. PREREQUISITE: MATH 1321. [0925-1]
1014. Fluid Power. (3). Fundamental principles of hydraulic and pneumatic systems, with emphasis on fluid instrumentation, control, and measurement. Two lecture, three laboratory hours per week. PREREOUISITE: MATH 1213. [0925-1]
1015. Forces and Force Systems. (3). A study of force systems and their solution; that branch of mechanics which deals with forces and with the effects of forces acting upon rigid bodies at rest. PREREQUISITES: MATH 1321, PHYS 2112. [0925-1] 3401. Strength of Materials. (3). Analysis and study of structural materials. PREREQUISITES: TECH 3400, MATH 1321, PHYS 2112. [0925-1]
1016. Industrial Materials. (3). A course designed to acquaint the student with the various properties of structural materials and the methods used to test for these properties. Two lecture, three laboratory hours per week. [0925-1]
1017. Project Cost Evaluation. (3). A study of industrial as well as personal financial situations and how they are affected by interest rates and the 'Time Value" of money. The investigation of economic alternatives will include the applications of existing formulas, techniques, and methods. Three lecture hours per week. PREREQUISITE: junior standing or permission of instructor. [0925-2]
1018. Project Cost Evaluation II. (3). A continuation of the study of formulas and techniques used to evaluate the financial alternatives to personal and industrial cost projects. Emphasis is on the analysis of the tax structure and how it influences the selection of the optimum financial alternatives. PREREQUISITE: TECH 3440. [0925-1]
1019. Principles of Supervision. (3). Study of the functions of supervisory personnel. [0925-1]
1020. Problems in Technology. (3). Study and research in the specific area. PREREQUISITE: senior classification for majors and minors in Technology who can offer satisfactory evidence of being qualified to benefit from the course. [0925-8]

## GEOLOGY <br> PROFESSOR RICHARD W. LOUNSBURY, Chairman

Room 312. Engineering Building
Requirements for the major and minor in geology are listed on page 85

## Q850 GEOLOGY (GEOL)

1101. Physical Geology. (4). A study of the earth's composition and structure and the processes which affect it. Emphasis is on the crust of the earth and the processes which continually modify the surface. Three lecture, two laboratory hours per week.
[1914-1]
1102. Historical Geology. (4). The history of the earth and its life as interpreted from the rock and fossil records. The principles of interpreting the records and the succession of geologic and biologic events which have led to the modern world. Three lecture, two laboratory hours per week. PRERE-

QUISITE: GEOL 1101.[1914-1]
2311. Mineralogy. (4). Introduction to crystallography and crystal chemistry. Physio-chemical properties and identification of the important ore and rock forming minerals. Three lecture, two laboratory hours per week. PREREQUISITES: GEOL 1101 and 1201; CHEM 1111; COREQUISITE: CHEM 1112 [1914-1]
2312. Petrology. (4). Study and identification of rocks. Examination and identification of minerals with emphasis on the rock-forming minerals are included in the studies of rocks. Two lecture and four laboratory hours per week. PREREQUISITE: GEOL 2311. [1914-1]
3100. Life of the Past. (3). An investigation of the fossil record of the history of life and a consideration of the concepts used in interpreting the signficance of that record. This course is designed primarily for the general student. Credit will not be given toward the degree requirements for a major in geology.[1914-1]
3211. Introduction to Paleontology. (4). A study of fossil invertebrate animals and their importance in the interpretation of ancient environments, evolution, and geologic time. Three lecture, two laboratory hours per week. PREREQUISITES: GEOL 1101 and 1201. [1918-1]
3512. Structural Geology. (4). Rock structures; origin, criteria for recognition and solution of structural problems. Two lecture, four laboratory hours per week. PREREQUISITE: GEOL 1201.
[1914-1]
3712. Sedimentation and Stratigraphy. (4). Principles of stratigraphy and sedimentation; interrelationships of structure, stratigraphy, and environments of deposition. Three lecture, two laboratory hours per week PREREOUISITES: GEOL 1201 or consent of instructor. [1914-1]
3802. Introduction to Oceanography. (3). Principles of physical and chemical oceanography. Sea floor topography, geology, salinity and contribution of life to physical and chemical aspects. Taught from the point of view of a geological engine that is driven by internal forces and creates earth surface features. Three lecture hours per week. PREREQUISITES: GEOL 1201 or consent of instructor. [1919-1]
3901. Environmental Geology. (3). Geological constraints on human society. Energy resources, mineral resources and criteria for land use. NOTE: Credit will not be given toward the degree requirements for a major in geology. [1914-1]
4100. Petroleum Geology. (3). Application of geologic principles to the search for economic accumulations of oil and gas. Emphasis on prospect selection via subsurface techniques. Two lecture, two laboratory hours per week. [1914-1]
4121. Optical Crystallography. (3). The principles and methods of study of optical crystallography. The use of the polarizing microscope in the identification of minerals. Two lecture, four laboratory hours per week. PREREQUISITE: GEOL 2312. [1914-1]
4201. Airphoto Interpretation and Remote Sensing. (4). Introduction to the theory and application of black and white and color air photos and side-looking radar, multispectral scanner and infrared imagery. Laboratory primarily concerned with black and white air photos. Three lecture, two laboratory hours per week. [1914-1]
4202. Geomorphology. (4). Theories of landscape development approached from a consideration of the processes active at the earth's surface: weathering, pedogenic, mass-wasting, groundwater, fluvial eolian, shoreline and glacial. Three lecture, two laboratory hours per week. [1914-1]
4251. Quaternary Geology. (3). Quaternary stratigraphy and history with special emphasis on the implications of climatic change. Geologic techniques particularly suited to Quaternary research.
[1914-1]
4301. Geologic Data Analysis. (3). Use of the computer and teletype in data file construction and
management, use of file with various programs, and use of statistical tests, regression lines, maps, and a classification of data sets with the aid of the computer. Two lecture and two laboratory hours per week. PREREOUISITE: senior standing or consent of instructor. [1914-1]
4312. Introduction to $X$-Ray Diffraction. (3). The basic principles of x-ray diffraction. Its application to crystallographic and mineralogic problems including mineral identification by the powder method. One lecture, four laboratory hours per week. PREREQUISITE: permission of the instructor. [1914-1]
4322. Petrography. (4). Classification, description, and thin-section study of rocks by means of the petrographic microscope. Three lecture, two laboratory hours per week. PREREQUISITE: GEOL 1421. [1914-1]
4332. Introduction to Geochemistry. (3). A study of the geological and chemical processes which govern or control the migration and distribution of the elements and atomic species of the earth in space and time. Three lecture hours per week. PREREQUISITE: GEOL 2312. [1915-1]
4421. Stratigraphic Paleontology and Paleoecology. (3). Concepts and methods of biostratigraphy and paleoecology. The importance of ancient organisms as contributions to sedimentation, indicators of environment, and guides to correlations of strata. Three lecture hours per week. PREREQUISITES: GEOL 3211 and 3712. [1918-1]
4511. Economic Mineral Deposits. (3). Origin, occurrence, and composition of metallic and nonmetallic mineral deposits. Three lecture hours per week. PREREQUISITES: GEOL 2311, 2312, and 3512. [1914-1]
4601. Engineering Geology. (3). The application of principles and knowledge of geology to engineering practice, especially in highways, construction, dam sites, foundations, water resources, and location of certain engineering materials. Three lecture hours per week. PREREOUISITES: consent of instructor.
[0911-1]
4622. Geology Field Camp. (6-8). Mapping of the structure and lithology of a prescribed geologic area. To be offered during the summer. Course may be taken at a college field camp offered by other schools subject to approval of major advisor. [1914-1]
4630. Soil and Clay Mineralogy. (3). Occurrence of non-clay minerals in soils and sediments. Origin and classification of clays and identification of clays and non-clay minerals. Engineering properties of soils related to clay and non-clay minerals. Two lectures, two laboratory hours per week. [1914-1]
4632. Applied Geophysics. (4). A survey of geophysical methods which emphasizes seismic and electrical investigations employed in engineering practice. The use of resistivity, seismograph and magnetometer in the investigation of subsurface materials. The location of sand, gravel, and subsurface water are discussed and will be supplemented by field measurements with these instruments. Two lecture, four laboratory hours per week. [1916-1]
4701. Spring Field Trip. (1-2). Conducted field trips during spring vacation. About 30 hours of field work will follow 2-4 hours of lectures. Open to non-majors. Among the areas which may be included are Ouachita-Arbuckle-Wichita Mountains of Oklahoma; Ouachita, Ozark dome and adjacent mineral districts; central and southern Appalachians; and Gulf Coastal Plain. Check Schedule of Classes for specific location. NOTE: May be repeated three times when location varies. A total of no more than 8 hours credit may be earned. Dates, hours, and credits to be arranged. PREREQUISITE: consent of instructor. [1914-8]
4721. Investigations in Geology. (1-3). Individual or group work on topics of current interest. PREREQUISITE: consent of instructor. [1914-8]
4731. Senior Thesis. (1-3). An original study, on 2 subject of geological significance, to be carried on independently by the student with faculty supervi-
sion. PREREQUISITE: senior standing in Geology
[1914-8]

## MECHANICAL ENGINEERING <br> PROFESSOR JOHN D. RAY, Chairman <br> Room 108A, Engineering Building

Requirements for the B.S. in Mechanical Engineering are listed on page 84 .

Q890 MECHANICAL ENGINEERING (MECH) 2332. Dynamics. (3). Kinematics and kinetics of particles and rigid bodies. Three lecture hours per week. PREREQUISITE: CIVL 2131. [0901-1]
3311. Engineering Thermodynamics I. (3). Laws of thermodynamics and their applications to engineering problems. Three lecture hours per week. PREREQUISITE: MATH 2322; PHYS 2512. [0910-1]
3312. Engineering Thermodynamics II. (3). Continuation of MECH 3311 Engineering Thermodynamics I. Three lecture hours per week. PREREQUISITE: MECH 3311, 3331. [0910-1]
3321. Dynamics and Control of Machines 1. (3). Dynamics analysis of mechanism including rigid body dynamics and balancing of machines. Introduction to linear mechanical systems and the stability analysis of linear mechanical systems. Three lecture hours per week. PREREQUISITES: MATH 2322, MECH 2332.
[0910-1]
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 1. (3). Methodology and practice in designing machine components by integrating principles from mechanics of materials, failure theory, fatigue, economics and other principles. PREREQUISITES: MECH 3322. [0910-1]
3326. Biomedical Systems Analysis-Mechanical. (3). Introduction to the concepts used in analyzing living systems. Simulation of body functions with mechanical and computer models. Familiarization with the design of mechanical bioengineering device such as heart valves, heart-lung machines, renal dialysis machines, etc. [0905-1]
3331. Mechanics of Fluids. (4). Statics and dynamics of fluids; applications to the measurement of properties of water and air flows. Three lecture, three laboratory hours per week. COREQUISITE: 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.
[0910-3]
3361. Materials Science. (4). Structure and properties of solids; modification of structure for engineering purposes; characteristics of polymers, ceramics, and metals. Three lecture, three laboratory hours per week. PREREQUISITE: PHYS 2512. [0915-1]
4309. Gas Dynamics. (3). Thermodynamics of fluid flow including dynamic and energy relations, adiabatic and diabatic flows Three lecture hours per week. PREREQUISITE: MECH 3312. [0910-1]
4310. Fluid Power 1. (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 the principles of thermodynamics, fluid mechanics and heat transfer to the conversion of useful energy. Topics include terrestrial and thermodynamic limitations, power plants, nuclear energy, solar energy, and direct energy conversion. PREREQUISITE: MECH 3311. [0910-1]
4313. Heat Transfer II. (3). Continuation of Heat Transfer I with application to the design of heat transfer systems. PREREQUISITE: MECH 4311
[0910-1]
4315. Heating, Ventilation and Air Conditioning. (3). Psychometrics, heating, ventilation, air conditioning, refrigeration. Three lecture hours per week. PREREQUISITE: MECH 3312. [0910-1]
4316. Energy Conservation and Management. (3). Energy conservation including combustion, heat distribution, heat rejection, heating system efficiency, etc. Consideration given to the effects of energy production and utilization on the environment. Problems of energy management are considered. PREREQUISITE: MECH 4311 . [0910-1]
4317. Fundamentals of Solar Engineering. (3). An introduction to the engineering applications of solar energy including discussions of solar energy collectors, storage systems, and uses such as power generation and heating and cooling of buildings.
[0910-1]
4322. Mechanical Design and Analysis II. (2). An analytical treatment of the methods used in the design process including the topics of creativity, probability, and optimization as applied to the design process, from concept through preliminary design to final design. PREREQUISITE: MECH 3323. [0910-1]
4323. Mechanical Design and Analysis III. (2). The design process applied to real multidisciplinary problems. A team approach is used to accomplish
design projects from a broad spectrum of interest areas that reflect contemporary problems in mechanical Engineering. [0910-1]
4325. 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; deformations beyond the elastic limit, theories of failure.
[0910-1]
4331. Turbomachinery. (3). Aerodynamics and flow of fluids in stationary and rotating passages. One, two and three dimensional analysis. Three lecture hours per week. PREREQUISITE: MECH 3331. [0910-1]
4333. Fluid Power II. (3). The design and analysis of hydraulic power and control components and systems. [0910-1]
4334. Engineering Acoustics and Noise Control. (3). An engineering analysis of acoustics related to noise and its control, applications to the control of noise in machines, buildings, industrial facilities and transportation. [0910-1]
4344. Dynamics and Control of Machines II. (3). Analysis of mechanical vibrations for multi-degreesof freedom systems and the response, control and stability of mechanical systems. PREREQUISITE: MECH 3321. [0910-1]
4351. Nuclear Engineering. (3). Power generation. Peaceful uses of nuclear energy. Three lecture hours per week. PREREQUISITES: upper division standing, consent of instructor. [0920-1]
4361. Metallurgy. (4). Physical metallurgy, heat treatment, and metallography. Three lecture, three laboratory hours per week. PREREQUISITE: MECH 3361. [0914-1]
4371. Mechanical Vibrations. (3). Kinematics of harmonic 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.
[0910-1]
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. Continuation of Manufacturing Operations I. Design of electromechanical systems for manufacturing processes and production operations. Designs based on optimization of man-machine interaction, selection of materials and the manufacturing process for high speed production equipment. PREREQUISITE: MECH 4381. [0910-1]
4391. Mechanical Engineering Projects. (1-3). Independent investigation of a mechanical engineering problem in consultation with instructor. PREREQUISITE: consent of instructor. [0910-8]

# THE UNIVERSITY COLLEGE 

ROBERT J. HATALA, Dean<br>Room GI, Johnson Hall

A description of the University College including degree requirements appears on page 88. The following courses are open to students enrolled in the University College. Others may enroll with the permission of the Dean of the College.

The specific content of Liberal Studies and Thematic Studies courses will vary from semester to semester; general course descriptions are presented here.

R950 LIBERAL STUDIES (UNIV)
1010. Communication. I. (6). Exercises in critical listening and interpretation and in effective writing and speaking based on rhetorical analyses of selected documents (e.g., essays, documentary films, narratives, plays, poems, speeches, etc.). PREREQUISITE: application or admission to University College, or permission of the Dean. [4901-9]
1020. Communication II. (6). Research into and critical interpretation of those media which create an environment of symbols and of the effects of such environments upon human belief and action. Media studies will include for example, writing in periodical and book form, radio, television, film, recorded music and systems of electronic communication. Students will do individual research into symbols used for communication and the environment(s) these symbols produce. PREREQUISITES: UNIV 1010 or ENGL 1101 and ENGL 1102 or their equivalents, and application or admission to the University College or permission of the Dean. [4901-9]
1210. Humanities. (6). Research into and critical interpretation of major documents and symbols of Western civilization, with emphasis upon man's attempt, in philosophy, religion, history, literature, and the fine arts, to frame a coherent place for himself in his world. One or two historical periods will be stressed. NOTE: On occasion, this course will be the same as certain sections of HIST 1301 and HIST 1302, focusing upon a survey of Western civilization. See the Schedule of Classes. PREREQUISITE: application or admission to University College, or permission of the Dean. [4903-1]
1410. Social Science. (6). Introduction to the fundamental concepts used by the disciplines of
anthropology, economics, political science, geography, psychology and sociology. Emphasis shall be placed upon understanding human behavior through the study of culture, society and its institutions, personality and mental processes, the allocation of resources, and the distribution of power. Students will be encouraged to develop a social science perspective on human behavior through the study of important research findings and through research of their own. NOTE: On occasion, this course will be the same as certain sections of INTL 1101 and 1102, with a regional focus upon Third World Nations. See the Schedule of Classes. PREREQUISITE: application or admission to University College, or permission of the Dean. [4903-9]
1610. Natural Science. (6). Introduction to 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 the study of physical phenomena will be used to illustrate the interrelationships among the natural science disciplines. Laboratory work will be included. PREREQUISITE: application or admission to University College, or permission of the Dean. [4902-9]
1810. Leisure and Recreation. (1 or 4). Knowledge of relationship between leisure, recreation, and work with special emphasis given to a balanced lifestyle. Opportunities will be provided to participate in and to demonstrate selected recreational skills and activities. PREREQUISITE: application or admission to University College, or permission of the Dean.
[4901-9]

## R950 THEMATIC STUDIES (UNIV)

3500-3599. Thematic Studies. (6-9). Interdisciplinary seminars to be organized about significant problems, themes, or ideas. Specific course descriptions will appear each semester in the "Addenda" section of the Schedule of Classes. PREREQUISITE: application or admission to the University College, or permission of the Dean. [4901-1]

R950 INDIVIDUALIZED STUDIES (UNIV)
1005. Directed Study. (1-3). Directed study at the
introductory level. A student may seek permission t study under faculty direction in an area not routinely taught. This course may be repeated for maximum credit of six hours. PREREQUISITE: application or admission to University College, or permission of the dean. [4999-8]
3700. Special Topics. (3-6). An interdisciplinary examination of selected topics. The topics will be announced in the Schedule of Classes. [4994-1]
4110. Internship. (3-12). Supervised training in work related to a student's educational objectives. This course may be repeated up to a maximum of 12 hours. PREREQUISITE: admission to the University College. [4999-8]
4380. Independent Study. (1-3). Directed individual study or research. A student who has identified an area of study pertinent to his coor dinated study program, but not routinely taught, may pursue the study under the direction of a faculty member. This course may be repeated up to a maximum of 6 hours. PREREQUISITE: admission to the University College. [4999-8]
4996. Special Project. (9). Intensive study of matter of concern central to the student's educational objectives. PREREOUISITE: admission to the University College. [4999-8]

R950 Experiential Learning (UNIV)
A portfolio describing and documenting knowledge gained through experience or non-traditional instruction may be prepared by a University College student for assessment by a faculty member. (See page 26 for fees and page 45 for more details.) That faculty assessor recommends the descriptive title, level, and amount of credit to be assigned by the dean of University College.

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

# INDEPENDENT DEPARTMENTS AND PROGRAMS 

## AEROSPACE STUDIES

LT. COLONEL WILLIAM F. CORROUM
Professor of Aerospace Studies
Room 404, Jones Hall
Details of the Air Force ROTC program are on page 96.

A010 AEROSPACE STUDIES (RQTC)
1111. Air Force Today. (1). A study of world military forces is begun through treatment of the U.S. Department of Defense and the doctrine, mission and functions of the United States Air Force. One class hour per week and one hour of Leadership Laboratory. [1803-1]
1112. Air Force Today. (1). A continuation of Aerospace Studies 1111. One class hour per week and one hour of Leadership Laboratory. [1803-1]
2211. The Development of Air Power. (1). This course is an introduction to the study of air power. It is developed from a historical perspective starting before the Wright Brothers and continuing through the early 1970's. One class hour per week and one hour of Leadership Laboratory. [1803-1]
2212. The Development of Air Power. (1). A continuation of Aerospace Studies 2211 . One class hour per week and one hour of Leadership Laboratory. [1803-1]

## PROFESSIONAL OFFICER COURSE

3211. Aerospace Studies Four-Week Field Training. (4). A twenty-eight day course conducted during the summer at an active installation of the USAF which consists of approximately 185 hours of instruction in Air Force base functions, leadership, physical training, Air Force environment, career orientation, and survival training. Students are assigned to groups of twenty-five and individually counseled, and evaluated on their performance. Emphasis is given to self-initiated leadership activities. PREREQUISITE: ROTC 1111, 1112, 2211, 2212, or equivalent. [1883-8]
3212. Aerospace Studies Six Week Field Training. (6). A forty-two day course conducted during the summer at an active installation of the USAF which consists of approximately 258 hours of instruction on the role of the military forces, organization of the Defense Department, instruments of national security, Air Force base functions, leadership, physical training and Air Force environment. Students are assigned to groups of twenty-five and individually counseled and evaluated on their performance.
[1803-8]
3311 . Air Force Management and Leadership. (3). A study of professionalism, leadership and management. This study includes the meaning of professionalism, professional responsibilities, the military justice system; leadership theory, functions and practices; management princıples and functions; problem solving; and management, tools, practices and controls. Three class hours per week and one hour of Leadership Laboratory. [1803-1]
3213. Air Force Management and Leadership. (3). A continuation of Aerospace Studies 4411 . Three class hours per week and one hour of Leadership Laboratory. [1803-1]
3214. National Security Forces in Contemporary American Society. (3). A course concerned with the fundamental issues and requirements of national security. It entails extensive study of civil-military relations, the nature of the international environment and strategic requisites for defense. Three class hours per week and one hour of Leadership Laboratory. [1803-1]
3215. National Security Forces in Contemporary American Society. (3). A continuation of Aerospace

Studies 3311 . Three class hours per week and one hour of Leadership Laboratory. [1803-1]
4413. Elementary Aeronautics. (3). An introduction to aviation and the fundamental principles of flight; basic meteorology and its applications to aviation; use of navigation computers, instruments, and radio aids; basic regulations governing airmen, aircraft operations, and flight safety. This course is designed to prepare for the FAA Private Pilot Written Examination. Iwo c/ass hours per week. [1803-1]

## NURSING <br> ASSOCIATE PROFESSOR LOIS HOLLOMON, Chairman <br> Room 316. Manning Hall

Requirements for the degrees in Nursing are listed on page 91 .

## U970 NURSING (NURS)

2112. Fundamentals of Nursing Care III. (5). The normal physiological process is emphasized in the study of the mother and the newborn, progressing to the abnormalities which may occur. Problem solving techniques are utilized in planning and initiating nursing care in the clinical laboratory. Six lecture, sixteen laboratory hours per week. PREREQUISITES: NURS 1102, BIOL 1731 and 4732, and HMEC 2202.
[1203-1]
2113. Fundamentals of Nursing Care IV. (5). A study of normal growth and development of the child within a family from infancy through adolescence. Emphasis is placed on the problem solving technique in identifying the scientific principles of nursing care of the sick child and how behavior deviates during illness. Laboratory experience is designed to help the student in formulating, implementing, and evaluating nursing care within the hospital and community agencies. Six lecture, sixteen laboratory hours per week loffered summer and one half fall and/or spring semester). PREREQUISITES: NURS 1102, AND BIQL 1731 and 1732, PSYC 1101. [1203-1]
2114. Fundamentals of Nursing Care V. (5). A study of individual and group behavior with emphasis on appropriate skillful nursing intervention with the mentally ill. Laboratory experience provides opportunity for nurse-patient interaction. Six lecture, twelve laboratory hours per week loffered summer and one half fall and/or spring semester). PREREQUISITES: NURS 1102. [1 203-1]
2115. Nursing Perspective. (1). This course is designed to assist the student in adjusting to nursing practice. The status and problems of the occupation of nursing are studied with emphasis on the responsibilities of the registered nurse and her relationship with the nursing organizations. PREREQUISITES: NURS 1102. [1203-1]
2116. Fundamentals of Nursing Care VI. (10). A common problems approach to nursing principles basic to the care of adults and children. Emphasis is placed on deviation from normal health patterns, both physical and emotional, and appropriate nursing intervention is explored. Laboratory experience is designed for depth and scope in formulating, implementing, and evaluating nursing care. Six lecture, sixteen laboratory hours per week. PREREQUISITES: NURS 1102, BIOL 1731 and 1732, and HMEC 2202. [1203-1]
2117. Pharmacology in Nursing. (3). This course will integrate knowledge from pharmacology and nursing to explore the physiological and psychological reactions to drug therapy. It will examine the use, actions, and effects of major drug groups and appropriate nursing responsibilities. PEREQUISITES: CHEM 1051, 1052. PRE- or COREQUISITE: BIQL 3440. COREOUISITE: NURS 3100. [1203-1]
2118. Clinical Nursing I. (4). This course explores the role of the professional nurse in the community health care system. The nursing process is used to identify the client's biopsychosocial adaptation to stress. The various roles of the professional nurse are explored in developing the individual's philosophy of nursing. Communication and problem solving skills are expanded. Clinical experience is used to gain an overview of the community health care system. PREREQUISITES: CHEM 1051 and 1052. PRE-or COREQUISITE: BIOL 3440. COREQUISITE: NURS 3000. [1 203-1]
2119. Clinical Nursing II. (5). This course builds upon the concepts of Clinical Nursing I. The role of the nurse in health promotion and maintenance is implemented with emphasis on communication skill, problem solving, and health teaching. Advanced assessment skills are used to identify actual and potential problems of adaptation for clients, significant others, and the community as a whole. Clinical experience focuses on intervention in various community health settings. PREREQUISITES: NURS 3000, 3100. [1203-1]
2120. Clinical Nursing III. (6). This course emphasizes advanced biopsychosocial and legal/ethical concepts underlyıng nursing intervention in more complex problems of adaptation. The systems approach to health care is used in secondary/tertiary health care settings. Clinical experience focuses on application of management principles, problem solving, and the professional nursing role. Various clinıcal settings are used, based on the individual student's needs and preferences. PREREQUISITE: NURS 3200. PRE-or CQREQUISITE: EDRS 4541. COREQUISITE: NURS 4100. [1203-1]
2121. Nursing Management. (3). The management role of the nurse in the health care system is explored. The basic principles and skills of management that are utilized in nursing and health care settings are explored. Emphasis is placed on problem solving and change theory which recognizes the values and forces affecting the system. PREREQUISITE: NURS 3200. CQREQUISITE: NURS 4000. [1203-1]
2122. Clinical Nursing IV. (5). The student is responsible for planning, contracting, and evaluating his/her own clinical experience in a selected area of study. Clinical performance emphasizes demonstration of role change, professional issues, and application of nursing research findings in the implementation of the professional nursing role. Clinical performance also demonstrates professional growth in use of self reflecting legal and ethical standards of practice. Student utilizes research methodology in a problem solving project for a clinical problem selected by the individual. PREREQUISITES: NURS 4100. COREQUISITE: EDRS 4542. [1203-1]

## MEMPHIS STATE UNIVERSITY LIBRARIES <br> V945 MSU LIBRARIES (LBRY)

2010. The Use of Library Materials, Resources, and Bibliography. (2). An introduction to the organization of academic library material with emphasis on bibliographic access to information. Course content will consist of lectures and assigned research problems designed to acquaint the student with general and specialized methods of access to library material. [1601-1]

## INTERNATIONAL STUDIES

 ASSOCIATE PROFESSOR J. REX ENOCH, DirectorOffice of International Studies, Old Brister Library, 130
Courses offered for the International Studies
prograin 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 primarıly to serve the needs of students participating in interdisciplinary programs, enrollment in the courses is not limited to these studies. Descriptions of majors are found on pages 93-94

## V935 INTERNATIONAL STUDIES (INTL)

1101. Analysis of Developing Nations. (3). An interdisciplınary survey of developing natıons which is designed to provide undergraduate students a basic understanding of other societies and the problems of technologically developing natıons Basic concepts and methods of the social sciences will be 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). An interdisciplinary survey of contemporary developing nations within a major world region. The regional focus will be on Africa, Latın America, Southeast Asia, or the Indian Subcontinent. [2210-1]
1103. Seminar in Latin American Studies. (3). An interdisciplinary seminar which focuses on a specific theme or region in Latin America and incorporates significant materials from the several disciplines in the program in Latin American Studies. A written report will be presented for a panel discussion PREREQUISITE: permission of the Latın American Studies advisor [2210-1]
1104. Seminar in African Studies. I. (3). An interdisciplinary seminar designed to help the upperclassman to integrate his knowledge of Africa and to exercise his competence in several disciplines through supervised research. PREREQUISITE: nine hours of course work in African studies representing three disciplines from the group anthropology geography, history, and political science, or permis sion of the African Studies advisor. [2210-1]
1105. Seminar in African Studies II. (3). A contınuation of International Studies 4301. PREREQUISITE: INTL 4301. [2210-1]
1106. Seminar in International Relations. (3). Investigation of selected topics in international relations from an interdisciplinary perspective. Individual research and presentation of a major paper which integrates the tools, data or concepts of two or more disciplines. PREREQUISITE: permission of the International Relations advisor. [2210-1]

## URBAN STUDIES <br> ASSISTANT PROFESSOR STANLEY E. HYLAND, Coordinator

A description of the interdisciplinary program in Urban Studies appears on page 95. Requirements for the major and minor in Urban Studies are listed on page 95 . Courses offered by the departments of Anthropology, Economics, Geography, History, Political Science, and Sociology and Social Work are included in this program, and the descriptions of these courses will be found under the appropriate departmental headings.

## V980 URBAN STUDIES (URBN)

4001. Urban Studies Seminar. (3). A seminar on urban problems and their causes, an overview of the perspectives and contributions of each of six participating disciplines which include: urban anthropology, urban geography, urban history, urban economics, urban politics, and urban sociology. In addition summary reviews of problems and proposed solutions in related fields will be presented. Required for all majors [2214-1]
4002. Urban Research. (3). (Same as Sociology 4632). Extensive exploration of research methods that have proved useful in the study of urban social phenomena; the application, limitations, and advantages of various research approaches. Required of all majors. [2214-1]
4003. Urban Studies Internship. (3). Supervised internship working with urban agencies in the city, state or national level. The internship program deals primarily with data collection and analysis on a grass roots level. [2214-8]

## UNIVERSITY HONORS <br> PROGRAM

PROFESSOR JOSEPH R. RILEY, Director
A description of the University Honors Progra appears on page 92. Descriptions of the college an departmental programs are found in the appropriat course listings.

## V960 UNIVERSITY HONORS PROGRAM (UNHP)

3100-3199. Junior Honors Colloquim I. ( Interdisciplinary colloquim centering around a bro theme or topic. Specific course descriptions appear each semester in the "Addenda section the Schedule of Classes. PREREQUISITES: juni standing and permission of the Director of th University Honors Program. [4999-1]

3200-3299. Junior Honors Colloquim II. (3). Sam as UNHP 3100, except a different theme or topic $w$ be used. Specific course descriptions will appea each semester in the "Addenda" section of th Schedule of Classes. PREREQUISITES: junior stan ding and permission of the Director of the Universit Honors Program. [4999-1]

4100-4199. Senior Honors Seminar I. (3). Inter disciplinary seminar on a somewhat narrower themor topic than the ones used in the junior honor colloquia Specific course descriptions will appea each semester in the "Addenda" section of the Schedule of Classes. PREREQUISITES: senior stan ding and permission of the Director of the Universit Honors Program. [4999-1]
4200-4299. Senior Honors Seminar II. (3). Same as UNHP 4100, except a different theme or topic wil be used Specific course descriptions will appea each semester in the "Addenda" section of th Schedule of Classes. PREREQUISITES: senior stand ing and permission of the Director of the University Honors Program. [4999-1]
4300. Senior Honors Thesis. (3). In lieu of one of the above courses, the honors student may write a thesis on a topic approved by the University Honors Council and directed by a faculty committee chosen by the student and approved by the Honors Council. PREREQUISITES: senior standing and permission the Director of the University Honors Program.


## FACULTY AND STAFF

## ACADEMIC

_ JERRY NEAL BOONE, Ph.D., Vice President for Academic Affairs

- VICTOR FEISAL, Ph.D., Associate Vice President for Academic Administration
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B M., 1970, Lincoln University. M. A. 1975, University of Missouri.
DAVID G YELLIN (1964), Professor
B A., 1937, Pennsylvania State University; M.A., 1963, Teachers College, Columbia University.

## THE COLLEGE OF EDUCATION

ROBERT L. SAUNDERS, Ed.D.,
Dean of the College of Education
DEVOY A. RYAN, Ed.D.,
Associate Dean
BARBARA A. BURCH, Ed.D.,
Associate Dean
ELBERT F. NORTHERN, Ed.D.,
Assistant Dean
TERRY L. JAMES, Ed.D.,
Director of Professional Laboratory
Experiences
PATRICIA F. CAVENDER, M.A.,
Director of Teacher Certification/ Graduation Analyst
JOHN C CUMMINGS, M.Ed.,
General Advisor

## CURRICULUM AND INSTRUCTION

ROBERT BENNETT, Ph.D., Chairman
LEILA M. ACKLEN (1972), Assistant Professor B.S., 1944, Winthrop College, M.S P H., 1945, Univer sity of North Carolina; Ed D., 1974. University of Georgıa
ROGER BENNETT (1974), Associate

## Professor, Chairman

B.S., 1956, M.S., 1960, Ph.D., 1970, University of Wisconsin.
SOPHIA CLARK BROTHERTON (1955),
Assistant Professor
B.S., 1956, M A., 1961, Memphis State University, Ed S., 1964, Colorado State College
BARBARA G. BURCH (1968), Professor Associate Dean
B A., 1959, Western Kentucky State College; M.S., 1966, Ed D, 1967, Indiana University
CHARLES S. CLAXTON (1976), Associate Professor
B A., 1967. University of North Carolina, M. Ed., 1970. West Georgia College; Ph.D., 1972, Florida State University
RONALD W. CLEMINSON (1970), Associate Professor
BE. 1962. University of Wisconsin. M.A.T. 1966, Michigan State University, Ph D,, 1970, University of lowa
PATRICIA BOYNE COATS (1969), Associate Professor
B. S., 1962, M.S., 1964, Mississippi College; Ed.D., 1968, University of Southern Mississippi.
JOSEPH FARRIS CRABTREE, II (1965),
Professor
B.S 1950, Emory and Henry College; M Ed., 195B, Ed D., 1965. University of Virginia.

MINNIE McRAE CUTLIFF (1958), Assistant Professor
B.S. 1942. Memphis State University; M.S., 1949. University of Tennessee.
GEORGE ETHERIDGE (1977), Associate Professor
B.AEd., 1964, MEd., 1969, Ed.D., 1971, University of Florida.

STEPHEN D. FITT (1975), Assistant Professor B S., 1971. M Ed., 1972, University of Utah, M L.S., 1975, Brigham Young University; Ph.D., 1975, University of Utah ARTHUR ERVIN GARNER (1970), Associate Professor
B A., 1960. Hardıng College; M ED., 1966, Ed.D., 1969 University of Houston.
DUANE M. GIANNANGELO (1972), Assistant Professor
B S., 1964. Edinboro State College, M.Ed, 1967. University of Pittsburgh, Ph.D., 1972, University of lowa
ALBERT FORD HAYNES, JR. (1954), Professor B.S., 1941, M.A. 1954, Memphis State University; EdD., 195B. University of Tennessee.
JOHN R. HIRSCHMANN (1955), Associate Professor
B.S., 1953, Memphis State University; M.A., 1958. George Peabody College, Ed.S., 1969, Michigan State University
PAUL LINUS JONES (1970). Associate Professor
B.S., 1961, Northwestern State College; M S., 1964, Ed D. 1970, Oklahoma State University
TERRY L. JAMES (1977), Assistant Professor B.S., 1965, MEd., 196B, Ed.D., 1973. University of Missouri.
ROBERT A. KAISER (1969), Associate Professor
B.S. 1957. Allegheny College: M Ed., 1961, Ed.D., 1967. University of Pittsburgh.
JANIE KNIGHT (1978), Instructor
B.S. 1957. Lane College; M.A., 1971, Memphis State University.
LANA McWILLIAMS (1975). Assistant Professor
B.A., 1964, M.S., 1970, University of Texas; Ph.D., 1975. Southern Illinois University.
JAMES K. MUSKELLEY (1964), Associate Professor
B.A., 1949. M.S.. 1950, University of Mississippi; EdD., 1972. Memphis State University.

MERRILL MOSELEY POWELL (1966),
Associate Professor
B.A., 1946, University of Richmond, M.A., 1963, EdD 1966. University of Alabama.

THOMAS ARTHUR RAKES (1972), Associate Professor
B.S., 1968, Mılligan College; M.A., 1969, East Tennessee State University; Ed D., 1972, Unversity of Tennessee.
JUNE ROSE RICHIE (1968), Assistant Professor
B.A., 1952, Baylor University; M.Ed., 1957, Ed.D., 1972, University of Mississippi.
DENNIE L. SMITH (1971), Associate Professor B. S., i965, M.A., 1966. Marshall University; Ed D., 1969, Auburn University.
CHARLES LAMAR THOMPSON (1963), Professor
B A., 1956, M.Ed., 195B, Mississippi College, Ed.D., 1963, University of Southern Mississippi.
GLADYS THOMPSON (1978), Instructor B.S., 1962, M.S., 1975, Memphis State University. ROSESTELLE WOOLNER (1970), Professor B.S., 195B, M.A., 1960, Memphis State University; Ed.D., 1966, University of Tennessee.

## DISTRIBUTIVE EDUCATION

C. EDWIN PEARSON, M.S., Chairman

MARY S. ANDERTON (1971), Assistant Professor
B.S., 1959, University of Tennessee; M. S., 1970, Memphis State University; Ph.D., 1976, Ohio State University.
C. EDWIN PEARSON (1966), Professor, Chairman
B. Ed., 1940, Illinois State University; M.S., 1944, University of lllinois.

## EDUCATIONAL ADMINISTRATION AND SUPERVISION

FRANK W. MARKUS, Ph.D., Chairman
FREDERICK KEITH BELLOTT (1968),
Professor; Director, Bureau of Educational Research and Services
B.S.E., 1949, Arkansas A\&M College: MEd. 1954, University of Arkansas; EdD., 1967, George Peabody College.
HARRY EDWARD BOYD (1967), Professor B.S., 1945, University of Illinois; M.S., 1949, Ph.D., 1967. Southern Illinois University.
WALTER ELZIE DANLEY (1964), Professor B.S.E., 1956. Arkansas State University; M.A., 195B, Memphis State University; Ed.D., 1965, University of Mississippi.
KARL WILLIAM GRUBE (1978), Associate Professor, Coordinator of Educational Facilities Planning Laboratory
B.S., 1966, M.A., 1969, Central Mıchigan University; Ph D., 1973, University of Michıgan.
GEORGE JOSEPH HUYS (1970), Professor B.S., 1952, M.S., 1954. Ed.D., 1959, Indiana University. TROY WILBERT KELLY (1967), Professor B.S., 1949, M.A. 1953, Murray State University; Ph D., 1967, Southern Illinoss University.
GERALD C. KNOLL (1977), Assistant Professor
B.S., 1968, M.A., 1970, Ph.D., 1972, University of lowa.

FRANK W. MARKUS (1971), Professor, Chairman
B.S., 1956, M.A., 1957, Ph.D., 1964, Northwestern Univer sity.
YVONNE RALSTON (1977), Assistant Professor
B.A., 1965, M.A., 1968, University of South Florida; Ed.D., 1974, University of Mississippi.
DEVOY A. RYAN (1967), Professor; Associate Dean, College of Education
B.S., 1943, Southwest Missouri State College; M.Ed., 1949, Ed.D., 1953. University of Missouri.
ROBERT L. SAUNDERS (1970), Professor; Dean of The College of Education
B.S., 1947, M.S., 1950, Ed.D., 1957, Auburn University

## FOUNDATIONS OF EDUCATION

## CARLTON BOWYER, Ph.D., Chairman

HARRY L. BOWMAN (1970), Associate Professor; Associate Director, Bureau of Educational Research and Services B Th., 1959, Pentecostal Bible Institute; B.A., 1962, Union University; M.A., 1964, Ed.D., 1966, George Peabody College.
CARLTON H. BOWYER (1972), Professor Chairman
A.B., 1949, M.A., 1952, Ph.D., 1958, University of Missouri.
LEON WOODROW BROWNLEE (1952), Professor
B.S., 1939, Sul Ross College; M.Ed., 1947, Ph D., 1952, University of Texas.
ANDREW JACKSON BUSH (1976), Assistant Professor
B.Sc., 1966, Ohio State University; M.Ed., 1971, Wright State University; Ph.D., 1976, Ohio State University.
ELMER DEAN BUTLER (1970), Associate Professor
8.M., 1957, Belmont College; M.A., 1962, Memphis State University; Ed.D., 1966, University of Tennessee.
ARTHUR W. CHICKERING (1977), Professor A.B., 1950, Wesleyan University; A.M.T., 1951, Harvard University; Ph.D., 195B, Columbia University.

DONALD A. DELLOW (1973), Associate Professor
B.A., 1964, State University of New York at Osw M.E.D., 1965, Ed.D., 1971, University of Florida

GEORGE L. DOWD (1963), Associate Professor
B.S., 1947, Unıon University; M.A., 1949, M.Ed., 19 Ed.D., 1956, University of Mississippi.
WOODROW FLANARY (1967), Associate Professor
A.B., 1937. Emory and Henry College; M.A., 193 Vanderbilt University; Ed.D., 1953. University of Virginı
BETTY EDMISTON HILL (1967), Assistant Professor
B.S., 1963, M.A., 1965, Memphis State University; Ed. 1973, University of Tennessee.
WILLIAM HENRY HOWICK (1967), Professo Th.B., 194B, Canadian College; A.B., 1950, Trevec College; M.A., 1952, M.Ed., 1953, Ph.D., 1963, Geor Peabody College.
THOMAS MEARS HUGHES (1970), Associa Professor
B.S., 1953, M.A., 1959, Memphis State University; Ed. 1967, University of Tennessee.
JOHN D. LINQUIST (1978), Associate Professor
B.A., 1963, M.A., 1964, Ph.D., 1972, University Michigan.
GEORGE DOUGLAS MAYO (1971), Adjunct Professor
B.S., 1939, Memphis State University; M.A., 1941, Geors Peabody College; Ph.D. 1949. Ohio State University.
ELBERT F. NOTHERN (1958), Professor B.S.E., 1947. University of Arkansas; Ed.M., 1949, Harva University; Ed.D., 1953. University of Arkansas.
JOHN RICHARD PETRY (1967), Assistant Professor
B.A., 1948, M.S., 1953. Hardin-Simmons University; 8. 1953, Southwestern 8aptist Theological Semınary; Ed. 1973, George Peabody College.
FRANKLIN BLAINE RAINES (1966), Associat Professor
B.S., 1954, Lambuth College; M.A., 1957, Memphis Sta University; Ed.D., 1968, University of Tennessee.
ERNEST A. RAKOW (1975), Assistant Professor
B.S., 1964, Concordia Teachers College; M.A., 1967, Ph. 1974, University of Chicago.
STEVEN M. ROSS (1974), Assistant Professor
B.A., 1969, M.S., 1972, Ph.D., 1974, Pennsylvania Sta University
GLENN R. SMITH (1976), Assistant Professor
B.A., 1968, Adams State College; M. A., 1971, Ph.D., 197 University of Colorado.
ROBERT FLOYD TODD (1968), Associate Professor
B.A., 1950, M.A., 1955, Murray State University; Ph.C 1959, University of Mississippi.
DONALD FLOYD WALTON (1968), Associat Professor
B.A., 1949, Southwestern at Memphis; M.S.Ed., 196 Ed.D., 1965, Baylor University.
HENRY SCOTT ZURHELLEN (1970),
Associate Professor
B.A., 1949, M.A., 1960, Columbia University; Ed.D., 1970 University of Tennessee.

## GUIDANCE AND PERSONNEL SERVICES

ROBERT ELMER DAVIS, Ed.D., Chairman
WILLIAM BYAS (1978), Associate Professor B.S., 1957, Tennessee State University; M.S., 1964, Fo Valley State College: Ed.D., 1971, University of Tennesse
ROBERT L. CRAWFORD (1975), Assistant Professor
B.A., 1968, M.Ed., 1969, Ed.D., 1973, University Kentucky.

## ROBERT ELMER DAVIS (1964), Professor.

Chairman
B.A.E., 1954, M.Ed., 195B, Ed.D., 1962, University of Mississippi
URL ELDRED GILLILAND (1973), Associate Professor
B.S., B.A., 1949, Jacksonville State University, M.Ed., 1960, University of Tennessee at Chattanooga; Ed.D., 1966, University of Tennessee at Knoxville.
IICHARD KEITH JAMES (1977), Assistant Professor
B.S.E. 1964, M.Ed., 1966, Eastern Illinois University; Ph.D., 1974. Indiana State University.
PATRICIA H. MURRELL (1970), Associate Professor
B.A., 1956. Millsaps College; M.Ed., 1966, Ed.D., 1968, University of Mississippi.
JANET ELAINE SCOTT (1977), Assistant Professor
B.S., 1969, California State College; M.A., 1973, Ph.D., 1976. Ohio State University

ALICIA CATHERINE TILLEY (1967), Associate
Professor, Dean of Graduate Studies
B.A., 1941, Southeastern Louisiana College; M.Ed., 1955. University of Texas; Ed.D., 196B; University of Illinois. VILLIAM HERBERT WELCH (1969),
Associate Professor
B.S., 1946, Western Michigan University; M.S., 1948. Tulane University; Ed.D., 1969, University of Houston OYCE YOUNG (1978), Assistant
Professor
B.A., 1963, LeMoyne College, M.Ed., 1967, Memphis State University; Ph.D., 1976, Southern III. University. (Carbondale).

## HEALTH, PHYSICAL EDUCATION, AND RECREATION

MELVIN A. HUMPHREYS, Re.D., Chairman AVID J. ANSPAUGH (1971), Associate Professor
B.A., 1965, Albion College, M.A., 1967. Eastern Mıchıgan University; P E.D.,1971, Indıana University, Ed D., 1977. University of Tennessee
INDA ARNOLD (1976), Women's Athletic Trainer
B.S., 1975, Murray State; M.S., 1976, Kansas State University.
EONARD BRYSON (1963), Associate Professor; Head, Division of Lifetime Sports and Leisure Activities
B.S., 1962, Indiana University; M.Ed., 1963. Southern IllinoIs University, Ed.D., 1974, University of Alabama
ERRY BRYSON (1976), Instructor
B.S., 1966, University of Tennessee; M.ED., 1967, Memphis State University.
HOMAS BRIGHT BUFORD, JR. (1966),
Men's Tennis Coach
B.A., 1957, Southwestern at Memphis.

ONALD J. CHARPIO (1969), Instructor
B.S., 1968, Northeast Louisiana State College, MEd., 1969, Memphis State University.
AMES A. COOK (1971), Men's Golf Coach B.S., 196B, Memphis State University.

ARRELL CRASE (1966), Professor
B.A., 1956, Berea College; M.S. 195B, University of Tennessee; Ph.D., 1966, Ohio State University
HARLES DUNCAN (1976), Instructor
B.S., 1971. Memphis State University; M.S., 1973, Indıana State University
ARRY EDWARDS (1973), Instructor
B.S., 1966, Erskine College; M.Ed., 1972, Memphis State University, Ed.D., University of Mississippi.
:DWARD KING ELLSWORTH (1969),
Assistant Professor
B.A., 1965, Michigan State University; M.S., 1967, University of Tennessee, Ed.S., 1974, University of Mıssissippi.

## RICHARD DENNIS FADGEN (1968),

## Swimming Coach

B.S., 1959, North Carolina State University, M.S., 1961. Appalachian State University.
CAROLYN THORPE FURR (1964), Assistant Professor
B.S., 1961, Longwood College; M.S., 1962, University of Tennessee.
DONALD P. HALDIMANN (1977), Instructor
B.S., 1976, M.A. 1977, Murray State University.

DIANE HALE (1978), Women's Volleyball Coach
B.S., 1975, M.S., 1976, University of Tennessee

MICHAEL H. HAMRICK (1967), Associate
Professor; Head, Division of Health
Science and Safety Education
B.S., 1966, M.Ed., 1967, Memphis State University; Ed. D., 1973. University of Tennesse

GLENN T. HAYS (1970), Men's Track Coach
B.A., 1967. Southwestern University, M.Ed, 1972, Memphis State University.
JANE HOWLES HOOKER (1969), Assistant Professor
B.S.E., 196B, M.E., 1969, Memphis State University; Ed.S., 1974, University of Mississippi.
MELVIN A. HUMPHREYS (1962), Associate Professor, Chairman
B.S., 1959, B.S., 1961, University of Tennessee; M.A., 1962. Memphis State University; Re.D., 1973, Indiana University.

FLORENCE V. ILLING, R.N. (1951),

## Assistant Protessor

G.N., 1936, Medical College of South Carolina; B.S., 1950.

George Peabody College, M.A., 1953. Memphis State University.
MARY LOU JOHNS (1970), Women's Basketball Coach
B.S. 1964, M.Ed., 1969, Memphis State University.

ROBERT KILPATRICK (1971), Men's Baseball Coach
B.S., 1962, University of Mississippi.

HARRIETTE JOAN LAVENUE (1967),
Assistant Professor
B.S., 1960, University of Tennessee at Martin; M.S.,1961, University of Tennessee.
LAWRENCE E. LILES (1975), Instructor B.S., 1974, M.S., 1975, Memphis State University.

ROBERT W. McKINLEY (1977), Instructor
B.S., 1976, M.S., 1977.University of Southern Mississippı.

CHARLES J. MAZZONE (1977), Instructor
B.S., 1971, M.Ed., 1972, Memphis State University.

CURTIS MIZE (1973), Instructor
B.S., 1970, Austin Peay State University; M.Ed., 1974, Memphis State University.

BETTY HULL OWEN (1959), Assistant Professor
B.S., 1956, Memphis State University; M.P.E., 1960, Purdue University.
CAROL LYNN PARKES (1977), Instructor, Women's Golf Coach
B.S., 1973, University of Alabama, M.S., 1976, Memphis State University.
CHARLOTTE PETERSON (1975), Women's Tennis Coach
B.S., 1972, M. Ed., 1974, Memphis State University.

JOSEPH PAUL PRICE (1967), Associate Professor; Head, Division of Recreation, Parks and Leisure Studies
B.S., 1966, M.S., 1974, Memphis State University; Re.Dir., 1971 ReD. 1972, Indiana University.
FRANK ROSATO (1973), Assistant Professor B. S., 1965, Troy Stete University; M.Ed., 1966, Ed.D., 1973, University of Tennessee.
SUSAN K. RUSS (1970), Women's Track Coach
B.S., 1965, M A., 1966, Murrey State University

CHARLES ROY SCHROEDER (1968),
Associate Professor
B Ed., 1960, University of Miami; M.S., 1964, Ph.D., 1968. Flordia State University.
E. B. SCOTT, JR. (1955), Professor; Head, Division of Physical Education, Sport and Dance
B.A., 1947, M.A., 194B. Colorado State College; H.S.D., 1953, P.E.D., 1954, Indıana University.
GEDDES SELF, JR. (1968), Assistant Professor
B.A., 1960, M.A., 1961, Memphis State University.

- FRANK UNRUH SIMONTON (1968), Assistant Professor
B.S., 1961, M.A., 1962, Memphıs State University.
A. EUGENE SMITH (1960), Assistant Professor, Men's Athletic Trainer
B.S., 1949, Sterling College; M.S., 1954, Indiana University.
RICKI SUTTON (1978), Women's Gymnastic Coach
B.S., 1973, Memphis State University; M.A., 1975, University of Alabama.
ELIJAH VANCE TURMAN (1965), Assistant Professor
B.S., 1960. University of Tennessee at Martin; M.A., 1962, Morehead State University.
SHARON L. VAN OTEGHEN (1977), Assistant Professor
B.A., 1961, M.A., 196B, University of lowa; P.E.D., 1973, Indiana University.
MICHELE VARON (1976), Instructor
B.S., 1970, SUC-Brockport, M.A., 1976, New York University.
WILLIAM WALLACE (1977), Instructor
B.S., 1971, Ball State University; M.Ed., 1977, Memphis State University.


## HOLLIE WALKER (1978), Assistant

Professor
B. S., 1965, Claflın University: M.S., 1965, State University, Ph.D., 197B, University of Utah.

## HOME ECONOMICS

## MARQUITA LaDORE IRLAND, Ed.D.,

 ChairmanPATTI R. BRADFORD (1978), Instructor
B.FA., 1972, Mississippi University for Women; M.F.A., 1977, Memphis State University
DIXIE RUTH CRASE (1966), Associate Professor
B.S., 1959, Eastern New Mexico University; M.S., 1960, Kansas State University; Ph.D., 1967. Ohio Stete University.
MARY W. CROCKER (1974), Professor B.S.E., 1961, Delta State College; M. A., 1963. University of Mississippi; Ph.D., 196B, Flordia State University.
MARY L. DUNDAS, Instructor
B.S., 1966, University of Minnesota, M.A.T., 1970. Antioch College.
LUCILLE GOLIGHTLY (1973), Associate Professor
B.S., 1943, Auburn University; M.S., 1955, University of Tennessee; Ph.D., 1973. Utah Stete University.
WANDA H. HARTMAN (1972), Assistant Professor
B.S., 1964. M.S., 1967. Mississippi Stete College for Women
MARQUITA LaDORE IRLAND (1967),
Professor, Chairman
B.S., 1942, M.A., 1947, Michigan Stete University; Ed.D., 1956, Wayne State University.
JANE RAE KEITH (1978), Instructor
B. S., 1972. M.S., 1974. University of Nebraska.

HELEN CLEOLA R. NUNN (1968), Professor B.S., 1941, University of Arkensas et Pine Bluff; M.S., 1954, Ph.D., 1966, Cornell University.

LADA MOORE SANDS (1951), Assistant Professor
B.S., 1939. M.S., 1957, Memphis State University

GWENDOLYN H SHAMBLIN (1978), Instructor
B S.. 1977. M.S., 1978. University of Tennessee.
JULIA EUBANKS THOMPSON (1965),
Assistant Professor
B.S., 1955, M. A., 1957, University of Southern Mıssissippi.

## LIBRARY SCIENCE

EVELYN GEER CLEMENT, Ph.D., Chairman
EVELYN GEER CLEMENT (1972), Associate Professor, Chairman
B.A., 1965, Tulsa University; M.L.S., 1966, University of Oklahoma; Ph.D., 1975, Indiana University.
MILLICENT A. LENZ (1975), Assistant Professor
B.A., 1959, Luther College; M.A., 1961, University of Kansas; M. A., 1965, University of Wisconsin; Ph D., 1974. Northern Illinois University.
RAMONA MADSON MAHOOD (1964), Assistant Professor
B.S., 1955, Utah State University; M.S., 1959, C.A.S. 1971. University of IllinoIs.

SPECIAL EDUCATION AND REHABILITATION<br>JOHN W. SCHIFANI, Ed.D., Acting Chairman

ROBERT M. ANDERSON (1973), Professor 8. S., 1958, Slippery Rock State College; M.A., 1960, Bradley University; Ed.D., 1965, University of Pittsburgh. CLARENCE D. BROWN (1976), Instructor B.S., 1970, Troy State; M.Ed., 1976, Auburn University

ROBERT CHRISTOPHER (1978), Adjunct Professor
B.S., 1954, Northwestern University; M.D. 1959, St Louis School of Medicine; Certified by American Board of Physical Medicine and Rehabilitation, 1965.
CHARLENE DeLOACH (1975), Assistant Professor
B.S., 1965, M.Ed., 1966, Ph.D., 1971, University of Illinois.

WILSON L. DIETRICH (1971), Professor B.S., 1958, Slippery Rock State College; M.A., 1964. Appalachian State University; Ed.D., 1967, University of Alabama
IRVING PAUL FILDERMAN (1978), Adjunct Professor
O.D. 1939, Southern College of Optometry; B.S., 1953, M.A. 1955, Ed.D., 1970, Memphis State University.

BARBARA ANN GALTELLI (1978), Instructor B.A., 1960, M.Ed., 1972, Memphis State University

BOBBY GENE GREER (1967), Professor B.S., 1960, North Texas State University, M.Ed., 1969, University of Arkansas; Ph.D., 1965, University of Texas.
BONNIE ROBERTS GREER (1974), Associate Professor
A.B., 1968, Indiana University; M.Ed., 1969, Ph. D., 1971, Oklahoma University.
JOHN B. GREER (1974), Associate

## Professor

B A., 1967, M.Ed., 1971, University of Delaware; Ph.D. 1974. Pennsylvania State University.

HELEN B. JACOBY (1975), Assistant Professor
B.S., 1943, Delta State College: M.S., 1957, Syracuse University; Ed D., 1970, University of Virginia.
WILLIAM M. JENKINS (1971), Associate Professor
B.S., 1959, Florida State University, M A., 1965, Ed D., 1972, University of Alabama.
JOHN T. JOHNSON, JR. (1975), Assistant Professor
B.A., 1960, George Williams College; M.Ed., 1969, Ph.D.. 1971, University of Georgra.

SARA JANE ODLE (1978), Assistant Professor
B.S., 1960, MEd., 1966, Ed.D., 1977, Memphis State University
THOMAS L. PORTER (1975), Professor B S., 1957, M Ed., 1958, Texas Technological University: Ph.D.. 1964, University of Missouri.
ALTON DAVID QUICK (1970), Professor AB., 1960. M Ed, 1962, Birmingham Southern College; Ed.D., 1966. University of Alabama.
HOBERT LYNDALL RICH (1969), Associate Professor
B. A., 195B, M.A., 1961, University of Kentucky; Ph.D 1969. Syracuse University.

JOHN W. SCHIFANI (1971), Associate
Professor, Acting Chairman
B.A., 1958, Nicholls State University, M.S.W., 1960, Louisiana State University; Ed D., 1971, University of Alabama
SUSAN SHAPERO (1978), Assistant

## Professor

B.S., 1973, University of Cincınnati; M.A., 1975, University of Colorado; Ph D., 197B, University of Washington.
BETTY BUGGS SMITH (1978), Instructor B.S., 1972, M.Ed., 1976, Memphis State University.

ANNE C. TROUTMAN, Assistant Professor
B.S.Ed., 1964, University of Georgia; M.Ed., 1970. Ph.D., 1977, Georgia State University.
RONNIE D. WILKINS (1976), Instructor B.A., 1970, Ouachita Baptist University; M.S., 1975, University of Central Arkansas.

## herff college of ENGINEERING

ORVILLE E. WHEELER, Ph.D., Dean of the Herff College of Engineering
FREDRICK W. SWIFT, Ph.D.,
Associate Dean and Director of
Graduate Studies and Research
CAROL LEE FERGUSON, M.Ed., College Level Advisor

## CIVIL ENGINEERING

THOMAS SAMUEL FRY, Ph,D., Chairman
JERRY LEE ANDERSON (1972), Assistant Professor
B.S.C.E., 1966, Tennessee Technological University: M.S.C.E., 1967, Ph.D., 1972, Vanderbilt University.

THOMAS SAMUEL FRY (1969), Professor, Chairman
B.S.C.E., 1950, M.S.C.E., 1953. Ph.D., 1959, University of Illinois.
KENNETH M. HALL (1970), Professor B.S.C.E., 1962, M.S.C.E., University of Arkansas; Ph.D., 1969, Arizona State University.
HRAJ A. KHARARJIAN (1978), Assistant Professor
B.S.C.E., 1970, Baghdad University; M.S.C.E., 1973, Ph.D., 1976, Virginia Polytechnic Institute and State University.
MARTIN E. LIPINSKI (1975), Associate Professor
B.S.C.E., 1964, University of Illinois; Certificate in Traffic Engr., 1965, Yale; M.S.C.E., 1966, Ph.D., 1972, University of llinois.
EDMUND P. SEGNER, JR. (1976), Professor, Associate Vice President for Academic Affairs
B.S.C.E., 1949, M.S.C.E., 1952, University of Texas; Ph.D., 1962, Texas A \& M University.
ALAN LANE SORENSEN (1978), Assistant Professor
B.S.A.E., 1970, Texas A \& M; M.S.A.E., 1971, California Institute of Technology: Ph.D., 1976. University of Texas.

WILLIAM T. SEGUI (1968), Associate Professor
B.S.C.E., 1960, M.S., 1965, Ph.D., 1971, University o South Carolina.
JOHN WARREN SMITH (1970), Professor
B.S.C.E., 1965, M.S.C.E., 1967, Ph.D., 1968, University o Missouri (Rolla).
ORVILLE EUGENE WHEELER (1978), Professor, Dean
B E., 1954, Vanderbilt University; M.S.C.E., 1956, Univer sity of Missourl; Ph.D., 1966. Texas A \& M University.
TZE SUN WU (1964), Professor
B.S., 1941, National Chiao-Tung University; M.S., 1949 University of Washington; Ph.D., 1952, University of illinois.

## ELECTRICAL ENGINEERING

THOMAS DEWEY SHOCKLEY, JR., Ph.D., Chairman

CHARLES WILSON BRAY (1969), Associate Professor
B.S., 1960, M.S., 1961, Mississippi State University; Ph.D. 1969, University of Tennessee.
CARL EDWIN HALFORD (1970), Associate Professor
B.S.E.E., 1966, M.S.E.E., 1967, Ph.D., 1970, University o Arkansas.
ROBERT JOSEPH HIRKO (1975), Assistant Professor
B.S.E.E., 1969, M.S.E.E., 1971, Ph.D., 1974, Carnegie Mellon University.
WILLIAM HOWARD JERMANN (1967),

## Professor

8.E.E., 1958, M.A., 1962, University of Detroit; Ph.D. 1967, University of Connecticut.
ROGER EMERSON NOLTE (1969), Professor 8.S.E.E., 1943, M.S.E.E., 1948, Ph.D., 1955, lowa State University.
THOMAS DEWEY SHOCKLEY, JR. (1967), Professor, Chairman
B.S.E.E., 1950, M.S.E.E., 1952, Lousiana State University Ph.D., 1963, Georgia Institute of Technology.

## ENGINEERING TECHNOLOGY <br> WESTON TERRELL BROOKS, D.Ed., Director

WESTON TERRELL BROOKS (1967),
Professor, Director
B.S., 1961, M.Ed., 1962, Sam Houston State College D.Ed., Texas A \& M University.

WILLIAM A. BROTHERTON (1948), Professor Associate Vice President of Public Service and Continuing Education
B. .., 1948. Memphis State University, M. A. 1951, Georg Peabody College; Ed.D., 1964, Colorado State College.
JOHN WILLIAM CARTER (1978),
Assistant Professor
B. S.E.T., 1977, M.S., 197B, Oklahoma State University.

CHARLES RICHARD COZZENS (1968),

## Associate Professor

8.S., 1953, Texas A\&M University; M.Ed, 1960 Southwest Texas State College; D. Ed. 1965, Texas A\&N University.
KENNTH DALE CREMER (1969), Professor; Chairman, Electrical, Structural and
Educational Technologies; Director of
Graduate Studies
B. S., 1956, M.A., 1960, Murray State University; Ed.D 1970, Utah State University.
GLEN W. DAVIS (1968), Assistant
Professor
B. S., 1966, Memphis State University; M. S., 1974, Murra State University.
RONALD LEE DAY (1973), Assistant
Professor
B.S., 1967, M.A., 1970, Western Kentucky University.

## LEON FELKINS (1976), Assistant

 ProfessorB.S.E.E., 1962, M.SEE, 1962, University of Washington ORRIS R. GABRIEL (1964), Assistant Professor
B.S., 1951, Clemson University; M.S., 1973, Memphis State University.
UNCEFORD PIERCE GILLENTINE (1967),
Assistant Professor
B.S., 1941, University of Mississippl; MEd., 1967. Memphis State University
ERBERT WILLIAMS HEYSE (1978),
Assistant Professor
B.S., 1952, Case Institute of Technology; M.S., 1955, Oklahoma State University.
GEORGE GLYN HITT (1966), Associate

## Professor

B.S., 1960, M.Ed., 1966, Mississippi State University, D.Ed., 1974, Texas A\&M University.

CHARLES HILTON HOPPER (1966), Associate Professor
B.S., 1955, M.S., 1956. Florida State University; Ph.D., 1971, Florida State University
TEPHEN P. LANGA (1970), Professor
B.E.M., 1950, Ohio State University; Ph.D., 1944, Slovak University.
HOMAS EUGENE MASON (1973), Assistant Professor
B.S.C.E., 1969, Michigan Technological University: M.A. Ed.D., 1972, Western Michıgan Unıversity
ROBERT E. MAGOWAN (1967), Professor;
Chairman, Manufacturing and Graphical

## Technologies

B.S., 1960, M.A. 1961, Eastern Kentucky University; Ed.D., 1967, Texas A\&M University.
JAMES KELLY METZGER (1976), Assistant Professor
B.A., 1966, University of Vermont; M.S., 1971. Memphıs State University.
KEVIN S. MUNROE (1975), Assistant

## Professor

B.A., 1971, University of Pennsylvania; M. Arch., 1975, University of New Mexico
BRUNO WALTER STRACK (1976), Assistant
Professor
B.S.M.E., 1947, State Engineering College, Hagen, West Germany; B.A., 1971, South Alabama; M.Ed, 1973, Auburn University.
ARTHUR J. SWEAT (1973), Assistant
Professor
B.SEE., 1962, University of Washington; M S., 1972, 1976, Memphis State University
ALAN RAYMOND TERRIL (1976), Assistant Professor
B.S.M.E., 1955, M.Engr., 1961, Pennsylvania State Univer sity.
JAMES NELSON YADON (1976), Associate Professor
B.S., 1954, M.S., 1957, Ph.D., 1974, Florida State Universi$t$

## GEOLOGY

## RICHARD WILLIAM LOUNSBURY, Ph.D. Chairman

JOHN WILLIAM ARMON (1978), Assistant Professor
B.A., 1969, M.A. 1971, Univ. of Cantebury; Ph.D. 1975 McMaster University
PHILI B. DEBOO (1965), Professor
B.S., 1953. University of Bombay: M. S., 1955, Ph D., 1963, Louisiana State University
ROBERT WADE DEININGER (1966), Professor
B.S., 1950, M.S., 1957, University of Wisconsın; Ph.D., 1964, Rice University
ARCHIBALD C. JOHNSTON (1978), Assistant Professor
B.S., 1967, Southwestern; Ph.D., 1978, University of Colorado.

LAURENCE E. LACKEY (1975), Assistant Professor
BS., 1969, Principia College; Ph.D., 1974, University of Michigan
RICHARD WILLIAM LOUNSBURY (1968),
Professor, Chairman
B.S., 1941, University of Chicago; Ph.D., 1951, Stanford University.
DAVID NORMAN LUMSDEN (1967)
Professor
B.A. 195B, M.A., 1960, State University of New York at Buffalo; Ph D., 1965, University of Illinois
PRADIP KUMAR SEN GUPTA (1966),

## Associate Professor

B Sc., 1956, University of Calcutta, M. Sc., 1958, Jadavpur
University, M. Tech., 1960, Indiana Institute of Technology. Ph.D., 1964. Washington University.

## MECHANICAL ENGINEERING

## JOHN D. RAY, Ph.D., Chairman

WILLIAM LEO AMMINGER (1966), Professor
Diplom-Ingenieur, 1952, Technical University of Vienna; D. Sc., 1964, Washington University

EDWARD H. PERRY (1970), Associate Professor
B.S., 1966, M.S., 1967, Ph.D., 1970, California Institute of Technology
JOHN D. RAY (1968), Professor, Chairman B.S., 1956, M S., 1957, University of Illinois; Ph D., 1968, University of Oklahoma
STEVE SCESA (1978), Associate Professor B S. 1949, M.S., 1951, Ph.D., 1954, University of Califor nıa
ROBERT T. STRONG (1978), Assistant Professor
B.S., 1964, M.S., 1965, Oklahoma State University; Ph.D. 1978, University of Houston.
FREDRICK W. SWIFT (1975), Associate Professor
B.S., 1959. University of Notre Dame, M.S., 1966, Universtity of Alabama, Ph.D., 1971, Oklahoma State University.
ORVILLE E. WHEELER (1978), Professor
BE., 1954, Vanderbilt. M.SC.E., University of Missouri; Ph.D. 1966, Texas A \& M University
KIRK L. WIGGINS (1978), Assistant Professor
B.S., 1969, M.S., 1972, Ph.D., 1974, University of Texas at Austin.

## UNIVERSITY COLLEGE

ROBERT J. HATALA, Ph.D.,
Dean of University College
H. GRADEN KIRKSEY, Ph.D.,

Acting Associate Dean
SUSANNE B. DARNELL, M.A.,
Assistant to the Dean

## FACULTY COUNCIL

Class of 1979
DR. TOM CAPLINGER, Mathematical Sciences
DR. BRENDA COX, Finance, Insurance, Real Estate
DR. LAURENCE LACKEY, Geology
DR. DENNIE SMITH, Curriculum and Instruction

## Class of 1980

DR. MARVIN BENSMAN, Theatre and Communication Arts
DR. CHARLES CLAXTON, Center for Higher Education
DR. GABRIEL RACZ, Economics

## MR. ARTHUR SWEAT, Engineering Technology

Class of 1981
DR. ROBERT FRANKLE, History
DR. CAROLINE FRUCHTMAN, Music
DR. JOHN SCHIFANI, Special Education and Rehabilitation
DR. ROBERT THOENY, Political Science

# independent DEPARTMENTS AND PROGRAMS 

## aEROSPACE STUDIES

LT. COLONEL BERT N. WALKER, B.A., M.A. Professor of Aerospace Studies

BERT N. WALKER (1978), Lt. Col. United States Air Force
B.A., 1958, Lawrence University, M.A., 1972, University of Wisconsin.
WILLIE C. REGISTER (1976), Major, United States Air Force; Assistant Professor
B.S. 1967, M.S, 1976, Memphis State University

VERNON E. TABOR (1978), Captain.
United States Air Force; Assistant Professor
B.A., 1973, Michigan State University; M.A., 1975, Central Michigan University.
KIM C. MILBURN, P.E (1978), Captain,
United States Air Force; Assistant
Professor
B.S.C.E., B.S.B.A., 1969, University of Colorado; M.B.A., 1978, University of Denver.

## NURSING

MARGARET AIKEN (1977), Instructor
B A. 1965. Manhattan College of the Sacred Heart; M.S.N., 1977, University of Texas School of Nursing
JANET BARTOSCH (1978), Instructor
B.S., 1973, Southwest Missouri State University, B.S.N., 1977, University of Tennessee Center for the Health Sciences; M.Ed., 1976, Memphis State University; M.S.N. 1978, University of Tennessee Center for the Health Sciences.
MARY CURRAN (1978), Instructor
B.S.N., 1977, University of South Alabama, M.S.N.,1978, University of Tennessee Center for the Health Sciences.
HILDA JOAN DODSON (1967), Assistant

## Professor

B.S.N., 1957, University of Tennessee; M.Ed., 1969.

Memphis State University
SHIRLEY EDEN-KILGOUR (1973), Assistant Professor
B.S.N., 1972, M.S.N., 1973, Boston University.

SANDRA HANLEN (1975), Instructor B.S.N., 1971, M S N, 1973. St. Louis University

SONJA SHERRY HICKEY (1978), Instructor BS.N., 1966, University of Arkansas; M.N.S.C. 1975, Univer sity of Arkansas.
CAROL LEE JOHNSTON (1977), Instructor
A.D.N., 1970, University of South Carolina; B. S. N., 1974 Univer sity of South Carolina; M.Ed., 1977. Memphis State University
JOSEPH ANDREW JOHNSTON (1978), Assistant Professor
BS., 1973. University of South Carolina; D.P., 1976. University of Tennessee College of Pharmacy
SARAH MYNATT (1974), Assistant

## Professor

B S.N., 1962, M S.N., 1974. University of Tennessee
BRENDA JOYCE PARHAM (1972), Assistant Professor
B.S.N., 1966, Florida A\&M University; M.Ed., 1972. Memphis State University

PATRICIA KEENE (1975), Assistant Professor A.D.N., 1971, Memphis State University, B.S.N., 1974 M.S.N., 1975, University of Tennessee.

SUSAN L. REIGEL (1977), Instructor
B.S.N.E., 1948, University of Pittsburg; M.Ed., 1965 , University of Cincinnati.
MARTHA RISNER (1978), Instructor
B.S.N., 1960, Vanderbilt University; M.S.S.W., 1970 , University of Tennessee.
PRISCILLA DIANE SADLER (1971), Assistant Professor
B.S.N., 196B, Texas Woman's University; M.Ed., 1973, Memphis State University; M.S.N., 1976, Texas Woman's University.
MARTHA SIMPSON (1978), Instructor B.S.N., 1962. University of Tennessee; M.S., 197B, Memphis State University
MARLENE SIPES (1977), Instructor
B.S.N., 1971, Boston College, M.S., 1977, Memphis State University.
CATHERINE TANZER (1974), Assistant Professor
B.S.N., 1951, Syracuse University: M.N., 1973. University of Alabama.
MYRA TILLIS (1975), Instructor
B.S.N., 1973. University of Tennessee; M.S.N., 1978 , University of Tennessee Center for the Health Sciences.
MEIKO VAN HEININGEN (1978), Instructor
B.S.N., 1977, M.S.N., 197B, University of Tennessee Center for the Health Sciences.

## AUDIOLOGY AND SPEECH PATHOLOGY

DANIEL S. BEASLEY, Ph.D., Chairman

DANIEL S. BEASLEY, Professor
Ph.D., 1970. University of Illinois.
ROBYN M. COX, Assistant Professor
Ph.D., 1974, Indiana University.
ALBYN DAVIS, Assistant Professor Ph.D., 1972, Ohio University.
JOHN A. IRWIN, Assistant Professor M.A., 1950, Western Reserve University.

JOHN V. IRWIN, Pope M. Farrington Professor Ph.D., 1947. University of Wisconsin.
JOEL C. KAHANE, Assistant Professor Ph.D., 1975. University of Pittsburgh.
WALTER H. MANNING, Associate Professor Ph.D., 1972. Michigan State University.
DANIEL J. ORCHIK, Associate Professor Ph.D., 1973, Michigan State University.
LOUISE M. WARD, Associate Professor M.A., 1951, University of Alabama.

DAVID J. WARK, Associate Professor Ph.D., 1971, Indiana University.
ELIZABETH J. WEBSTER, Professor Ph.D., 1961, Columbia University.
LYNN BARKER, Instructor
M.S., 1976, Purdue University.

BRENDA COLE, Instructor
M.A., 1975, Memphis State University.

JAN COVINGTON, Instructor
M.A., 1971, Memphis State University.

KATHLEEN FULMER, Instructor
M.A., 1977, Memphis State University.

ANN HAIRE, Instructor
M. A., 196B, University of Alabama.
H. STEPHENSON HARMON, Instructor
M.S., 1973, University of Montevallo.

MARY HILL, Instructor
M.S., 1974, University of Wisconsin.

SALLIE HILLIARD, Instructor
M.A., 1970, Vanderbilt University.

KAREN M. KRYGIER, Instructor
M.A., 1977, University of lowa

MUSETTE SPRUNT, Instructor
M.A., 197B, Memphis State University.

BRENDA TERRELL, Instructor
M.A., 1973, Memphis State University.

DEBRA VAN ORT, Instructor
M.A., 1977, Memphis State University.

## PLANNING

LINZY ALBERT, M.A., Chairman
LINZY D. ALBERT (1967), Associate
Professor, Chairman, Director of Regional Economic Development Center
B.A, 1950, M.A., 1951, Vanderbilt University

PHILIP MUMMERT (1975), Associate Professor, Planning and Development Counselor, Regional Economic Development Center
B.A., 1966, M.S., Urban and Regional Planning. 196B,

Ph.D., 1972. University of Wisconsin.
EARL EUGENE PEARSON, JR. (1971),
Assistant Professor, Planning and Development Counselor, Regional Economic Development Center
B.P.A., 1966, M.U.P.. 1971. University of Mississippi.

WILLIAM S. POLLARD, JR. (1971), Adjunct Professor
M. S., Civil Engineering, 194B. Purdue University.

## LIBRARIES

LESTER J. POURCIAU, JR. Ph.D., Director
HARRIET SEMES ALEXANDER (1977), Assistant Professor
B.A., 1971. Arkansas State University: M.A., 1972, Memphis State University; M.L.A., 1974, University of fllinois.
RITA BROADWAY (1975), Assistant Professor.
B.A., 1965, Northeast Lousiana Universiy. M.S.L.S., 1971 , Louisiana State University.
KIT S. BYUNN (1973), Assistant Professor B.A., 1962, National Chengchi University; M.A., 1967. Appalachian State University.
BARBARA ANN DENTON (1974), Assistant Professor
B.A., 1961 , University of Southern Mississippi; M.S., 1964, Louisiana State University.
JEANETTE MARIE DRONE (1969), Associate Professor
B.S., 1962, George Peabody College; M.M., 1965, University of Michigan; M.L.S., 1969, George Peebody College.
IAN M. EDWARD (1973), Assistant Professor
B.A., 196B, M.S., 1972, Florida State University.

DONNA MARTIN GAMBILL (1973), Assistant Professor
B.A., 1972, Memphis State University; M.S., 1973, Louisiana State University; M.Ed., 197B Memphis State University.
WILMA PALMER HENDRIX (1967), Assistant Professor
B.S., 1961, Memphis State University; M.L.S., 1966. George Peabody College.
JUDITH J. JOHNSON (1978), Assistant Professor
B.M.E., 1963, Peabody Conservatory of Music; M.M., 1969, University of Miami; M.S., 1974, Florida State University.

CLAIR S JOSEL (1971), instructor
B.A., 1963. Newcomb Coltege; M.S., 1965, Louisiana Stat University.
ELEANOR McKAY (1976), Associate Professor
B.A., 1967, University of Maryland; M.A., 1969, M.A 1975, University of Wisconsin.
ROSANNE MOORE (1975), instructor
A.B., 1974, Universıty of Georgia; M.L.S., 1975, Georg Peabody College.
ANGELA GIARDINA MULLIKIN (1967),
Assistant Professor
B.S., 1941, New York State University at Geneseo; M.S 1954, Columbia University.
PAMELA RAE PALMER (1973), Assistant Professor
B.A.E., 1970, University of Mississippi; M.S., 1972 Lousiana State University; M.A., 1978, Memphis State University.
LESTER J. POURCIAU, JR. (1970), Professor, Director
B.A., 1962, M.S., 1964, Louisiana State University; Ph.D 1975, Indiana University
DEBORAH RAY (1973), Instructor
B.A., 1971, Southwestern at Memphis; M.L.S., 1973 George Peabody College.
MARION DOUGLAS SANDIFER (1972), Assistant Professor
B.A., 1951, Mississippi College, M.S., 1952, University 0 Illinois.
ALVA WARE STEWART (1977), Associate Professor
A.B., 1953, University of North Carolina; M.A., 1955, Duk University; M.S.L.S., 1960, University of North Carolina.
BOB H. T. SUN (1974), Assistant Professor
B.A., 1964, Taiwan Cheng Kung University; M.A., 1969 Northern Illinois University; M.A., 1972, Western Kentuck University.
PATRICIA LEE THORNBERRY (1973),
Assistant Professor
B.A., 1971. Memphis State University; M.L.S., 1973 George Peabody College.
ODIE HENDERSON TOLBERT, JR. (1969), Assistant Professor
B.A., 1962, LeMoyne-Owen College; M.A., 1969, Norther Illinois University: Advanced Certificate Black Studie Librarianship, 1973, Fisk University.
THOMAS W. TULLOS (1969), Assistant Professor
B.A., 1943, Arkansas State University; M.A., 1953, Georg

Peabody College.
HELEN TURNER (1966), Assistant

## Professor

B.S.E., 1944, State College of Arkansas; M.A., 1955, M.A 1963. George Peabody College.

RELETHA J. UPTON (1976), Assistant Professor
B.A., 1964, Southern State College; M.L.s., 1965. Univer sity of Oklahoma.
CELIA JO WALL (1974), Assistant
Professor
B.A., 1971, Murray State University; M.S., 1974, Universit of Illinois.
MARY EDITH WALKER (1975), Assistant Professor
B.A., 1965, Millsaps College; M.Ln., 1969, Emory Univer sity.
CAROL E. WARNOCK (1973), Assistant Professor
B.A., 196B, University of Arkansas: M.A., 1972 Universit of Missouri.
MARIE B. WHITE (1967), Instructor
B.A., 1946, Marville College; B.S., 1947, George Peabod College.

# 1980-81 Tentative Calendar 

This calendar is tentative, and students should check the 1980-81 BULLETIN and the SCHEDULE OF CLASSES for possible changes or additions.

## FALL SEMESTER 1980

AUGUST 25. MONDAY through
AUGUST 28, THURSDAY
Off-campus registrations (exact dates, times, and locations to be announced prior to registration)
AUGUST 28, THURSDAY
Meeting of the new members of the University faculty, University Center Ballroom 9:00 A.M.
AUGUST 29, FRIDAY
Meeting of the entire University faculty, University Center Ballroom, 9:00 A.M., followed by meetings by colleges and departments

AUGUST 30, SATURDAY
Registration-The Graduate School
SEPTEMBER 1, MONDAY
Holiday - Labor Day
SEPTEMBER 2, TUESDAY through
SEPTEMBER 4, THURSDAY
Registration Week-For detailed dates and times, see the Bulletin (Schedule of Classes) for the Fall Semester, 1980
SEPTEMBER 5, FRIDAY
Classes meet as scheduled
SEPTEMBER 11, THURSDAY
Last day for adding courses
Last day for making application to the Dean of Graduate Studies for degree to be conferred in December, 1980 (File the "Intent to Graduate Card" and submit "Application for Master's Degree Candidacy" papers.)
SEPTEMBER 30, TUESDAY
Last day for removing Summer Session "Incomplete" grades
осtober 3, FRIDAY
Class Break (classes will not meet)
OCTOBER 24, FRIDAY
Last day for all undergraduate students to withdraw from the University Last day for all students to drop courses
NOVEMBER 11, TUESDAY
Last day for all graduate students to withdraw from the University

NOVEMBER 26, WEDNESDAY
Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in May, 1981

## SPRING SEMESTER 1981

JANUARY 6, TUESDAY through
JANUARY 8, THURSDAY
Off-campus registrations (exact dates, times, and locations to be announced prior to registration)

JANUARY 10, SATURDAY
Registration-The Graduate School
JANUARY 12, MONDAY through
JANUARY 14, WEDNESDAY
Registration Week-For detailed dates and times, see the Bulletin (Schedule of Classes) for the Spring Semester, 1981

JANUARY 15, THURSDAY
Classes meet as scheduled
JANUARY 21, WEDNESDAY
Last day for adding courses
Last day for making application to the Dean of Graduate Studies for degrees to be conferred in May, 1981. File the
"Intent to Graduate Card" and submit "Application for
Master's Degree Candidacy" papers.)
FEBRUARY 2, MONDAY
Last day for removing Fall Semester "Incomplete" grades
MARCH 6, FRIDAY
Last day for all undergraduate students to withdraw from the University
Last day for all students to drop courses
MARCH 15, SUNDAY through
MARCH 22, SUNDAY
Spring Holidays
APRIL 1, WEDNESDAY
Last day for all graduate students to withdraw from the University

APRIL 15, WEDNESDAY
Last day for making application to the dean of the appropriate undergraduate college for degree to be conferred in August, 1981

APRIL 30, THURSDAY
Study Day
MAY 1, FRIDAY
Final examinations begin
MAY 9, SATURDAY
Commencement
PRE-SUMMER SESSION 1981
MAY 11, MONDAY
Registration
MAY 12, TUESDAY
Classes meet as scheduled
Last day for late registration
MAY 20, WEDNESDAY
Last day for all undergraduate students to withdraw from the University
Last day for all students to drop courses

MAY 22, FRIDAY
Last day for all graduate students to withdraw
MAY 29, FRIDAY
Final examinations

## FIRST SUMMER TERM 1981

JUNE 2, TUESDAY through
JUNE 3, WEDNESDAY
Registration-For detailed dates and times, see the Bulletin (Schedule of Classes) for the Summer Session, 1981

JUNE 4, THURSDAY
Classes meet as scheduled
JUNE 8, MONDAY
Last day for adding First Term courses
Last day for making application to the Dean of Graduate Studies for degree to be conferred in August, 1981

JUNE 19, FRIDAY
Last day for all undergraduate students to withdraw
from the University (First Summer Term)
Last day for all students to drop courses (First Summer Term)

JUNE 22, MONDAY
Last day for removing Spring Semester "Incomplete" grades
JUNE 25, THURSDAY
Last day for all graduate students to withdraw from the University (First Summer Term)

JULY 3, FRIDAY
Holiday-Independence Day
JULY 9, THURSDAY
Final examinations

## SECOND SUMMER TERM 1981

JULY 13, MONDAY
Course adjustment day and registration for the Second Summer Term

JULY 14, TUESDAY
Classes meet as scheduled
JULY 16, THURSDAY
Last day to add or to register for Second Term courses
JULY 29, WEDNESDAY
Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in December, 1981

Last day for all undergraduate students to withdraw from the University (Second Summer Term)
Last day for all students to drop courses (Second Summer Term)

AUGUST 4, TUESDAY
Last day for graduate students to withdraw from the University (Second Summer Term)
AUGUST 14, FRIDAY
Final examinations
AUGUST 16, SUNDAY
Commencement

## EXTENDED SUMMER TERM 1981

## JUNE 2, TUESDAY through

JUNE 3. WEDNESDAY
Registration-For detailed dates and times, see the Bulletin (Schedule of Classes) for the Summer Session 1981

JUNE 4, THURSDAY
Classes meet as scheduled
JUNE 8, MONDAY
Last day for makıng application to the Dean of Graduat Studies for degrees to be conferred in August, 1981

JUNE 9, TUESDAY
Last day for addıng Extended Summer Term courses o registering for the Extended Summer Term

JUNE 22, MONDAY
Last day for removing Spring Semester "Incomplet grades

JULY 3, FRIDAY
Holiday-Independence Day
JULY 8, WEDNESDAY
Last day for all undergraduate students to withdray from the University (Extended Summer Term)
Last day for all students to drop courses (Extende Summer Term)

JULY 13, MONDAY through
JULY 14, TUESDAY
Mid-Term Break
JULY 22, WEDNESDAY
Last day for graduate students to withdraw from th University (Extended Summer Term)

JULY 29, WEDNESDAY
Last day for makıng application to the dean of th appropriate undergraduate college for degree to $b$ conferred in December, 1981

AUGUST 13, THURSDAY
Study Day
AUGUST 14, FRIDAY
Final examinations
AUGUST 16, SUNDAY
Commencement

## NINE WEEK SUMMER TERM 1981

JUNE 2, TUESDAY through
JUNE 3, WEDNESDAY
Registration for all summer terms-For detalled date and times, see the Bulletin (Schedule of Classes) for th Summer Session, 1981

JUNE 11, THURSDAY
Registration for Nine Week Summer Term
JUNE 15, MONDAY
Nine Week Term classes meet as scheduled
Last day for making application to the Dean of Gradua
Studies for degrees to be conferred in August, 1981
JUNE 17, WEDNESDAY
Last day to add Nine Week Summer Term courses
JUNE 22, MONDAY
Last day for removing Spring Semester "Incomplete grades

## Tentative Calendar for 1980-81

ULY 3, FRIDAY
Holiday-Independence Day
ULY 13, MONDAY
Course adjustment day and registration for Second Term Nine Week courses will not meet

ULY 14, TUESDAY
Last day for all undergraduate students to withdraw from the University (Nine Week Summer Term)

Last day for all students to drop courses (Nine Week Term)

## JULY 22, WEDNESDAY

Last day for graduate students to withdraw from the University (Nine Week Summer Term)

JULY 29, WEDNESDAY
Last day for makıng application to the dean of the appropriate undergraduate college for degrees to be conferred in December, 1981

AUGUST 11, TUESDAY
Final examınatıons (Nine Week Term)
AUGUST 16, SUNDAY
Commencement

Academic calendar (1979-80), 5; tentative (1980-81), 169.
Academic Counseling Unit, 30.
Academic status, 43.
ACCOUNTANCY, DEPARTMENT OF
Courses, 118; majors and minors, 62; faculty, 160.
Accreditation, 14.
Adding courses, 27,40.
Admission to teacher education program, 72. Admission to the University, 22.
Advanced Placement credit, 44.
Advanced standing, admission with, 24
AEROSPACE STUDIES, DEPARTMENT OF
Courses, 151; requirements, 48 (for P.E.), 96; faculty 167; fees, 27
African Studies, (See International Studies); major, 93.
Alumni Association, 37
ANTHROPOLOGY, DEPARTMENT OF
Courses, 99, major and minor, 56; faculty, 155.

Appeals procedures, 40; grade, 42.
Application fee, 26.
Applied Music fees, 26.
Architectural Technology, 85, 145
Airmed forces, credit for services in, 24, 46 (P.E.).

## ART, DEPARTMENT OF

Bachelor of Fine Arts degree requirements, 67; Courses, 123; major and minor (B.A.), 70; faculty, 162.

## ARTS AND SCIENCES, COLLEGE OF

Admission, 53; Academic Programs, 53; Bachelor of Arts, 54; Bachelor of Science, 55; Bachelor of Science in Chemistry, 55; Bachelor of Science in Medical Technology, 55; departments in college, 52; foreign language requirements, 53; preprofessional programs, 53; teacher education, 54; majors and minors, 56.
Athletics, 36.
Attendance, 40
AUDIOLOGY AND SPEECH PATHOLOGY, DEPARTMENT OF, faculty, 168.
auditing courses, 42.
Yudit students, Admission of, 24
qutomobiles on campus, 27,36 .

Bachelor of Arts (B.A.), requirements, 54, 69. achelor of Business Administration (B.B.A.), requirements, 61.
Bachelor of Fine Arts (B.F.A.), requirements, 67.

8 achelor of Liberal Studies (B.L.S.), 88.
bachelor of Music (B.M.), requirements, 68.
achelor of Music Education (B.M.Ed.), requirements, 80.
Sachelor of Professional Studies (B.P.S.), 88. Bachelor of Science (B.S.), requirements, 55. Bachelor of Science in Chemistry (B.S.Ch.), requirements, 55.
Bachelor of Science in Civil Engineering (B.S.C.E.), 83.

Sachelor of Science in Education (B.S.Ed.), requirements, 74.
Bachelor of Science in Electrical Engineering (B.S.E.E.), 84.

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Bachelor of Science in Medical Technology (B.S.M.T.), requirements, 55.

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## - NOTES -






[^0]:    Speech and Hearing Center-SHC Child Development Center - CDC

    Locations not shown on campus map:

[^1]:    *Recognition of graduation with distinction at commencement ceremonies will be based on the completion of a minımum 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]:    Information on factors 5-9 should be submitted by the student, by staff members, and by personnel in appropriate offices and centers.

[^3]:    **The endorsements are listed only with the departments in which they are offered, but they may accompany any major

[^4]:    *At least nine hours of upper division courses must be included in the area of specialization and/or from the electives.
    D. Special Education

    NOTE: Effective September 1, 1980, certification Educable Mentally Retarded will be discontınued. The following programs lead toward certification in Special Education:

[^5]:    The Major: 36 semester hours in geology courses, including GEOL 1101, 1201, 2311, 2312, $3211,3512,3712,4622$, and additional se-

